# EMMS - Technical Specification – Data Model v5.7 - May 2026

**3.00~~2.00~~ May 2026**

Pre-production: 14 April 2026

Production: 14 May 2026

# Important notice

## Purpose & audience

This document describes the technical changes required to participant's systems for the EMMS - Technical Specification – Data Model v5.7 - May 2026. 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).

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## Distribution

Available to the public.

## Document Identification

Prepared by: AEMO Digital

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## Version History

3.00~~2.00~~ Initial creation

## Documents made obsolete

The release of this document changes only the version of EMMS - Technical Specification – Data Model v5.7 - May 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

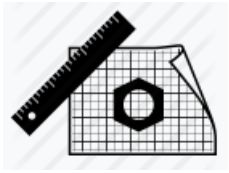
## 1.1 Audience

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 v5.7 - May 2026 describes the projects planned by AEMO from a participant perspective and includes any system related changes for participants.

## 1.3 Status

| Version | Status |
|---|---|
| 3.00 | Final. The Data Model is available in Production. |
| 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. |
| 1.01 | In progress. The design is not ready for participants' builds<br>Improving Security Frameworks (ISF) – Design complete estimation – 95%<br>STPASA Replacement Project - Design complete estimation – 95%<br>Shortening the Settlement Cycle (SSC) - Design complete estimation – 95%<br>Project Energy Connect - Market Integration (PEC-MI) - Design complete estimation – 95% |
| 1.00 | In progress. The design is not ready for participants' builds<br>Improving Security Frameworks (ISF) – Design complete estimation – 80%<br>STPASA Replacement Project - Design complete estimation – 70%<br>Shortening the Settlement Cycle (SSC) - Design complete estimation – 80%<br>Project Energy Connect - Market Integration (PEC-MI) - Design complete estimation – 80% |
| 0.01 |  Initial Draft for review. The design is not ready for participants' builds<br>Presents the EMMS - Technical Specification – Data Model v5.7 - May 2026 evolving design.<br>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: 14 April 2026
- Production: 14 May 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 - Settlements, Billings and Prudentials - August 2026 | Changes related to Shortening the Settlement Cycle (SSC) |
| System Security Scheduler - October 2026 | Changes related to the Improving Security Frameworks (ISF) project |

## 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 by the dates below.

| Title | Description | Publish date |
|---|---|---|
| Data Interchange Online Help | Help for participants using Data Interchange and the Data Model | 14 May 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 requested approval to proceed from all participants by close of business 5 January 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 below.

## 1.11 Changes in this version

- Data Model v5.7 is now available in Production.
- ~~Primary key changes to Settlements package update.~~

# 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** | 5 January 2025 | AEMO requested approval to proceed from all participants by close of business 5 January 2026 |
| **Revised Technical Specification** | May 2026 | AEMO releases new versions of this document as the technical requirements are streamlined. During the project this document is the source of truth<br>From the production release, the technical specification becomes final and the **related documents** become the source of truth<br>**Technical Specification Portal** |
| **Related Documents publication** | 14 April 2026 | Release of guides and resources mentioned in Related on page 9 |
| **Next MSUG meeting** | 03 June~~22 April~~ 2026 ~~(TBC)~~ | Market Systems User Group Meeting (MSUG) to review the technical specification and ask AEMO technical SMEs questions<br>This date is tentative. The Knowledge Management Team provides the invitation prior to the meeting |
| **Pre-production Data Model auto subscription** | 14 April 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** | 14 April 2026 | Participant Data Model scripts released |
| **Pre-production refresh** | 13 April 2026 – 17 April 2026 | 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 |

| Milestone | Date | Description |
|---|---|---|
| **Pre-production implementation** | 14 April 2026 | AEMO implements components of the Release to pre-production for participant testing<br>AEMO has full access to the system during this period<br>Participant access is not restricted; however, the data content or system availability is not guaranteed |
| **Pre-production available** | 14 April 2026 | Testing period begins for participants |
| **Participant Testing** | 14 April 2026 - 14 May 2026 | Unstructured participant testing in the pre-production environment |
| **Production implementation** | 14 May 2026 | AEMO implements the release to production |
| **Production Data Model auto subscription** | TBC | For any existing files with modified or new tables, if participants are subscribed, AEMO moves them to the Legacy version |
| **Production Data Model release** | 14 May 2026 | Participant Data Model scripts released |

# 3 Participant Impact

## 3.1 Electricity data model v5.7

Participants must upgrade to the latest version of Data Model 5.7 to receive the new and updated Data Model information in their Data Interchange environments.

## 3.2 Data population dates

| Project | Total tables = 31 | Data in pre-production | Data in production |
|---|---|---|---|
| **Shortening the Settlement Cycle (SSC)** | 2 | 8 June 2026 | 9 August 2026 |
| **STPASA Replacement Project** | 21 | TBC | TBC |
| **Improving Security Frameworks (ISF) - release 1.1** | 5 | October 2026 (TBC) | November 2026 (TBC) |
| **Project Energy Connect - Market Integration (PEC-MI)** | 1 | 04 May 2026 | 06 August 2026 |
| **ST PASA Procedure and Recall Period (Comment changes only)** | 2 | N/A | N/A |

## 3.3 Settlements package update

We have updated the primary key columns SERVICE and CONTRACTID to VARCHAR2(20) in the following tables:

- Modified table: SET_NMAS_RECOVERY
- Modified table: SET_NMAS_RECOVERY_RBF
- ~~Modified table: SET_NMAS_RECOVERY~~
- ~~Modified table: SET_NMAS_RECOVERY_RBF~~

Participants must upgrade to the Data Model v5.7 to receive the data type changes and avoid data load failures after the transition period.

### 3.3.1 Primary key transition

Transition period: End November 2026 (6 months)

After the Data Model 5.7 production release, we continue to populate the SERVICE and CONTRACTID values with a maximum length of 10 characters until the end of the transition period.

When the transition period ends, if you are using the Data Model v5.6 or earlier, your tables will experience data load failures if the values in the SERVICE or CONTRACTID exceeds 10 characters.

## 3.4 FPP table updates

The Data Model v5.7 includes updates to the FPP package. There is no impact to the FPP NEM Report versions as we are not applying the usual Legacy report rollover process.

Changes include:

- The LastChanged field is added to all tables in FPP Package for Data Model v5.7.
- All FPP reports are updated to include this field with the versions remaining the same.
- LastChanged field reflects the current date on initial population.

To see the LastChanged field in your tables and reports, update your Data Model version to v5.7. If you don't require the LastChanged field you can remain on v5.6.

## 3.5 Data subscription

### 3.5.1 Auto-subscription

Existing participants are auto subscribed to any new files when they upgrade to the latest data model version. The list of new files is in Participant interfaces changes. ~~Participant interfaces changes.~~

### 3.5.2 Legacy files

On the **Release Dates**, AEMO moves participants subscribed to existing files to the Legacy version. After you have upgraded to v5.7 subscribe to the current files in **Data Subscription**. For help, see **Subscribe to Files**.

# 4 Electricity Data Model 5.7

**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 5.7. This section describes the affected packages, tables, files, reports, and interfaces.

## 4.1 Data model changes summary

## 4.2 Package: BILLING_CONFIG

Configuration data for the Billing Process

### 4.2.1 Modified table: BILLINGCALENDAR

| | |
|---|---|
| **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.** |
| **Visibility** | Public |
| **Data volume** | Small |
| **Trigger** | Triggered when inserting billing weeks for a future contract year |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | CONTRACTYEAR, WEEKNO |
| **Project** | Shortening the Settlement Cycle |

### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **REVISION0_STATEMENTDATE** | DATE | No | Revision 0 Statement Date for the billing week. |

## 4.3 Package: BILLING_RUN

Results from a published Billing Run. The settlement data and billing run data are updated daily between 6am and 8am 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.

Each billing run is uniquely identified by contract year, week no and bill run no.

### 4.3.1 Modified table: BILLINGRUNTRK

| Comment | **BILLINGRUNTRK identifies the Statement type (i.e. Status of PRELIM, FINAL, REVISE) and date of the BillRunNo posted, per WeekNo. This provides a further extension of tracking data from the BILLINGDAYTRK table.** |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Triggered and populated by the posting of a billing run |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | BILLRUNNO, CONTRACTYEAR, WEEKNO |

| | |
|---|---|
| **Comment** | **BILLINGRUNTRK identifies the Statement type (i.e. Status of PRELIM, FINAL, REVISE) and date of the BillRunNo posted, per WeekNo. This provides a further extension of tracking data from the BILLINGDAYTRK table.** |
| **Project** | Shortening the Settlement Cycle |

**New columns**

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **REVISIONINDEX** | NUMBER(3,0) | No | Revision Run Type |

## 4.4 Package: DISPATCH

Results from a published Dispatch Run

### 4.4.1 Modified table: NEGATIVE_RESIDUE

| | |
|---|---|
| **Comment** | **Shows the inputs provided to the Negative Residue Constraints in the Dispatch horizon** |
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | With every Dispatch interval |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | DIRECTIONAL_INTERCONNECTORID, NRM_DATETIME, SETTLEMENTDATE |

| Comment | Shows the inputs provided to the Negative Residue Constraints in the Dispatch horizon |
|---|---|
| **Project** | Project Energy Connect - Market Integration (PEC-MI) |

### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **NRM_LOOP_FLAG** | NUMBER(1,0) | No | NRM Loop Flag controls monitoring behaviour:<br>0 = Individual NRM monitoring suppressed (loop operational with aggregate IRSR >= 0)<br>1 = Individual NRM monitoring active (applies to: loop not operational, aggregate loop IRSR < 0, or non-loop interconnection)<br>This flag is evaluated and set for ALL interconnections in each dispatch interval |

## 4.5 Package: GENERIC_CONSTRAINT

### 4.5.1 Modified table: GENCONDATA

| Comment | GENCONDATA sets out the generic constraints contained within a generic constraint set invoked in PASA, predispatch and dispatch. Fields enable selective application of invoked constraints in the Dispatch, Predispatch, ST PASA or MT PASA processes. |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |

| | |
|---|---|
| **Comment** | **GENCONDATA sets out the generic constraints contained within a generic constraint set invoked in PASA, predispatch and dispatch. Fields enable selective application of invoked constraints in the Dispatch, Predispatch, ST PASA or MT PASA processes.** |
| **Trigger** | On Change by AEMO |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | EFFECTIVEDATE, GENCONID, VERSIONNO |
| **Project** | Improving Security Frameworks |

### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **SYSTEMSECURITY** | VARCHAR2(1) | No | Flags constraint is used in System Security Management (SSM) processes. 1-Used(in SSM only),0-not used |
| **SSM_REGIONID** | VARCHAR2(20) | No | Region constraint relates to, in the format <REGIONID>_xxxx where xxxx is descriptive text |
| **SSM_GROUPID** | VARCHAR2(40) | No | Related constraints processed together in optimiser. |

## 4.5.2 New table: PASA_CONTINGENCY_DEFINITION

| | |
|---|---|
| **Comment** | **PASA_CONTINGENCY_DEFINITION shows the contingency details used by PD and ST PASA.** |
| **Visibility** | Public |

| Comment | PASA_CONTINGENCY_DEFINITION shows the contingency details used by PD and ST PASA. |
|---|---|
| Data volume | Medium |
| Trigger | On Change |
| Participant file share location | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| Primary key (in order) | CONTINGENCYID, EFFECTIVEDATE, VERSIONNO |
| Project | STPASA Replacement project |

## New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| CONTINGENCYID | VARCHAR2(20) | Yes | The contingency identifier |
| EFFECTIVEDATE | DATE | Yes | The effective date for this contingency |
| VERSIONNO | NUMBER(3,0) | Yes | Version number for the Effective date |
| CONTINGENCYDESCRIPTION | VARCHAR2(100) | No | The description for this contingency |
| LASTCHANGED | DATE | No | Date time this record was created |

## 4.6 Package: PARTICIPANT_REGISTRATION

### 4.6.1 New 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 |
|---|---|---|---|
| **INTERZONALCONNECTORID** | VARCHAR2(50) | Yes | The identifier for this Interzonal connector |
| **EFFECTIVEDATE** | DATE | Yes | Effective date of this InterZonal Mapping |
| **VERSIONNO** | NUMBER(3,0) | Yes | Version number for the Effective date |
| **FROMZONEID** | VARCHAR2(30) | No | The From ZoneId for this Interzonal connector |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **TOZONEID** | VARCHAR2(30) | No | The To ZoneId for this Interzonal connector |
| **OPERATINGSTATUS** | VARCHAR2(20) | No | Active or inactive indicator |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.6.2 New table: PASA_ZONE_REGION_MAPPING

| Comment | **PASA_ZONE_REGION_MAPPING shows zone to region mapping details and provide the Region Reference Zone information.** |
|---|---|
| **Visibility** | Public |
| **Data volume** | Small |
| **Trigger** | On Change |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | ZONEID, EFFECTIVEDATE, VERSIONNO |
| **Project** | STPASA Replacement project |

### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **ZONEID** | VARCHAR2(30) | Yes | Zone identifier |
| **EFFECTIVEDATE** | DATE | Yes | Effective date of this Zone-Region Mapping |
| **VERSIONNO** | NUMBER(3,0) | Yes | Version number for the Effective date |
| **REGIONID** | VARCHAR2(20) | No | Region in which this Zone belongs |
| **IS_RRN_ZONE** | VARCHAR2(10) | No | YES or NO/<Blank>. LORCONDITION is only reported for supply deficits in a Zone that contains the Regional Reference Node |
| **OPERATINGSTATUS** | VARCHAR2(20) | No | Active or inactive indicator |
| **LASTCHANGED** | DATE | No | Date time this record was created |

## 4.7 Package: PDPASA

### 4.7.1 Modified table: PDPASA_REGIONSOLUTION

| Comment | **The PDPASA region solution data. Note that the OUTAGE_LRC Run Type is no longer reported from 31 July 2025.** |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | PDPASA_REGIONSOLUTION is updated each PDPASA run (i.e. half-hourly). |

| | |
|---|---|
| **Comment** | **The PDPASA region solution data. Note that the OUTAGE_LRC Run Type is no longer reported from 31 July 2025.** |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | INTERVAL_DATETIME, REGIONID, RUN_DATETIME, RUNTYPE |
| **Project** | ST PASA Procedure and Recall Period |

### Modified columns

Comment changes only

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **AGGREGATEPASAAVAILABILITY** | NUMBER(12,0) | No | Sum of PASAAVAILABILITY for all scheduled generating units and scheduled bidirectional units (Gen side) with a Recall_Period <= 24 hours plus the sum of Unconstrained Intermittent Generation Forecasts (UIGF) for all semi-scheduled generating units. For the OUTAGE_LRC run, UIGF is the POE90 forecast. For the LOR Run, UIGF is the POE50 forecast. Note that the OUTAGE_LRC Run Type is discontinued from 31 July 2025. From March 2026, AGGREGATEPASAAVAILABILITY changes from that with Recall_Period <= 24 to that achievable by the relevant INTERVAL_DATETIME if recalled at the start of the run. |

## 4.7.2 New table: PDPASA_FNM_CASESOLUTION

| | |
|---|---|
| **Comment** | **PDPASA_FNM_CASESOLUTION shows the case run details, including the available run types, LOR and Deficit condition for each case.** |
| **Visibility** | Public |

| Comment | PDPASA_FNM_CASESOLUTION shows the case run details, including the available run types, LOR and Deficit condition for each case. |
|---|---|
| **Data volume** | Medium |
| **Trigger** | Every 30 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME |
| **Project** | STPASA Replacement project |

## New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **LORCONDITION** | NUMBER(1,0) | No | LORCONDITION is only set if supply deficit exists in a Zone that contains the Regional Reference Node.<br>LORCONDITION indicates the most severe condition for the case:<br>LORCONDITION = 3 if deficit in BASE run, else = 2 if deficit in RELIABILITY run, else = 1 if deficit in WARNING run, else 0 |
| **DEFICITCONDITION** | NUMBER(1,0) | No | DEFICITCONDITION is only set if supply deficit exists in a Zone that does NOT contain the Regional Reference Node.<br>DEFICITCONDITION indicates the most severe condition for the case:<br>DEFICITCONDITION = 3 if deficit in BASE run, else = 2 if deficit in RELIABILITY run, else = 1 if deficit in WARNING run, else 0 |
| **BASE_RUN_AVAILABLE** | VARCHAR2(10) | No | YES = Available, NO = Not Available |
| **RELIABILITY_RUN_AVAILABLE** | VARCHAR2(10) | No | YES = Available, NO = Not Available |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **WARNING_RUN_AVAILABLE** | VARCHAR2(10) | No | YES = Available, NO = Not Available |
| **PASAVERSION** | VARCHAR2(30) | No | Version of the PASA solver used to solve this case |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.7.3 New table: PDPASA_FNM_CONSTRAINTSOLUTION

| Comment | **PDPASA_FNM_CONSTRAINTSOLUTION shows manual or thermal constraint (created by PASA), including marginal value, violation degree, LHS and RHS.** |
|---|---|
| **Visibility** | Public |
| **Data volume** | Large |
| **Trigger** | Every 30 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, RUNTYPE, INTERVAL_DATETIME, CONSTRAINTID |
| **Project** | STPASA Replacement project |

### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **RUNTYPE** | VARCHAR2(20) | Yes | Run Type (BASE, RELIABILITY, WARNING) |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **CONSTRAINTID** | VARCHAR2(100) | Yes | Constraint identifier, either manual constraint (synonymous with GenConID) or thermal constraint created by PASA with format 'BASE_<BranchName>' or '<ContingencyID>_<BranchName>' |
| **MARGINALVALUE** | NUMBER(20,5) | No | Constraint Marginal Value ($/MW) |
| **VIOLATIONDEGREE** | NUMBER(15,5) | No | Constraint Violation Degree (MW) |
| **LHS** | NUMBER(15,5) | No | Constraint LHS (MW) |
| **RHS** | NUMBER(15,5) | No | Constraint RHS (MW) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

## 4.7.4 New table: PDPASA_FNM_DUIDAVAILABILITY

| Comment | PDPASA_FNM_DUIDAVAILABILITY shows Available Capacity, PASA Availability and Recall Period for all scheduled resources |
|---|---|
| **Visibility** | Public |
| **Data volume** | Large |

| Comment | PDPASA_FNM_DUIDAVAILABILITY shows Available Capacity, PASA Availability and Recall Period for all scheduled resources |
|---|---|
| **Trigger** | Every 30 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, INTERVAL_DATETIME, DUID |
| **Project** | STPASA Replacement project |

## New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **DUID** | VARCHAR2(20) | Yes | NEM Dispatchable Unit Identifier |
| **BID_TRADINGDATE** | DATE | No | Trading Date of the energy bid |
| **BID_OFFERDATETIME** | DATE | No | Date Time that the energy bid was received |
| **GENERATION_MAX_AVAILABILITY** | NUMBER (12,3) | No | Available Capacity for a scheduled generating unit, semi-scheduled generating unit, BDU (Gen side), WDR or MNSP (MW) |
| **GENERATION_PASA_AVAILABILITY** | NUMBER (12,3) | No | PASA Availability for a scheduled generating unit, BDU (Gen side), WDR or MNSP. Null for a semi-scheduled generating unit (MW) |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **GENERATION_RECALL_PERIOD** | NUMBER (8,3) | No | Recall Period associated with the PASA Availability for a scheduled generating unit, BDU (Gen side), WDR or MNSP. Null for a semi-scheduled generating unit (Hours) |
| **LOAD_MAX_AVAILABILITY** | NUMBER (12,3) | No | Available Capacity for a scheduled load or BDU (Load side) (MW) |
| **LOAD_PASA_AVAILABILITY** | NUMBER (12,3) | No | PASA Availability for a scheduled load or BDU (Load side) (MW) |
| **LOAD_RECALL_PERIOD** | NUMBER (8,3) | No | Recall Period associated with the PASA Availability for a scheduled load or BDU (Load side) (Hours) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.7.5 New table: PDPASA_FNM_INTERCONNECTORSOLN

| Comment | PDPASA_FNM_INTERCONNECTORSOLN shows cleared Interconnector flow for the interval. |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Every 30 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, RUNTYPE, INTERVAL_DATETIME, INTERCONNECTORID |
| **Project** | STPASA Replacement project |

### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **RUNTYPE** | VARCHAR2(20) | Yes | Run Type (BASE, RELIABILITY, WARNING) |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **INTERCONNECTORID** | VARCHAR2(10) | Yes | Interconnector Identifier |
| **CLEAREDFLOW** | NUMBER(12,2) | No | Cleared Interconnector flow (MW) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

## 4.7.6 New table: PDPASA_FNM_INTERZONALSOLUTION

| Comment | **PDPASA_FNM_INTERZONALSOLUTION shows cleared inter zonal flow for the interval and run type.** |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Every 30 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, RUNTYPE, INTERVAL_DATETIME, INTERZONALCONNECTORID |
| **Project** | STPASA Replacement project |

### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **RUNTYPE** | VARCHAR2(20) | Yes | Run Type (BASE, RELIABILITY, WARNING) |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **INTERZONALCONNECTORID** | VARCHAR2(50) | Yes | InterzonalConnector Identifier |
| **FROMZONEID** | VARCHAR2(30) | No | FromZoneID of the InterZonalConnectorID |
| **TOZONEID** | VARCHAR2(30) | No | ToZoneID of the InterZonalConnectorID |
| **CLEAREDFLOW** | NUMBER(12,2) | No | Cleared Interzonal flow (MW) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

## 4.7.7 New table: PDPASA_FNM_REGIONSOLUTION

| Comment | **PDPASA_FNM_REGIONSOLUTION shows region demand, cleared values of resources, spare capacity, losses for each run type and intervals.** |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Every 30 minutes |

| Comment | PDPASA_FNM_REGIONSOLUTION shows region demand, cleared values of resources, spare capacity, losses for each run type and intervals. |
|---|---|
| Participant file share location | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| Primary key (in order) | RUN_DATETIME, RUNTYPE, INTERVAL_DATETIME, REGIONID |
| Project | STPASA Replacement project |

## New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| RUN_DATETIME | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| RUNTYPE | VARCHAR2(20) | Yes | Run Type (BASE, RELIABILITY, WARNING) |
| INTERVAL_DATETIME | DATE | Yes | End date time of the interval |
| REGIONID | VARCHAR2(20) | Yes | Region Identifier |
| LORCONDITION | NUMBER(1,0) | No | Lack of Reserve Condition (LORCONDITION) > 0 if a supply deficit exists in the Zone for this Region that contains its Regional Reference Node<br>LORCONDITION = 3 if deficit in BASE run<br>LORCONDITION = 2 if deficit in RELIABILITY run<br>LORCONDITION = 1 if deficit in WARNING run |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **DEFICITCONDITION** | NUMBER(1,0) | No | Deficit Condition (DEFICITCONDITION) > 0 if a supply deficit only exists in a Zone for this Region that does not contain its Regional Reference Node<br>DEFICITCONDITION = 3 if deficit in BASE run<br>DEFICITCONDITION = 2 if deficit in RELIABILITY run<br>DEFICITCONDITION = 1 if deficit in WARNING run |
| **INITIALDEMAND** | NUMBER(12,2) | No | Most probable Demand Forecast adjusted by Demand Uncertainty Margin (MW) |
| **DEMAND_UNCERTAINTY_MARGIN** | NUMBER(12,2) | No | Aggregate Uncertainty Margin adjustment to most probable Demand Forecast (MW) |
| **SCHED_GEN_UNCERTAINTY_MARGIN** | NUMBER(12,2) | No | Aggregate Uncertainty Margin adjustment to Scheduled Generation Bid Max Avail (MW) |
| **VRE_GEN_UNCERTAINTY_MARGIN** | NUMBER(12,2) | No | Aggregate Uncertainty Margin adjustment to most probable VRE Forecast (MW) |
| **SCHED_GEN_AUX_LOAD** | NUMBER(12,2) | No | Aggregate Auxiliary Load adjustment to uncertainty-adjusted Bid MaxAvail of all scheduled generating units (MW) |
| **ENERGYUNCONSTRAINED_CLEARED** | NUMBER(12,2) | No | Cleared Generation from non energy-constrained resources - that is, excluding bidirectional units and generating units subject to daily energy limits (MW) |
| **ENERGYCONSTRAINED_CLEARED** | NUMBER(12,2) | No | Cleared Generation from energy-constrained resources - that is, from bidirectional units and generating units subject to daily energy limits (MW) |
| **BDU_CLEARED** | NUMBER(12,2) | No | Cleared Generation (positive) or Consumption (negative) from bidirectional units (MW) |
| **SS_CLEARED** | NUMBER(12,2) | No | Cleared Generation from semi-scheduled generating units (MW) |
| **SS_SOLAR_CLEARED** | NUMBER(12,2) | No | Cleared Generation from semi-scheduled solar generating units (MW) |
| **SS_WIND_CLEARED** | NUMBER(12,2) | No | Cleared Generation from semi-scheduled wind generating units (MW) |
| **SPARECAPACITY** | NUMBER(12,2) | No | Spare Generation Capacity = max(0, Available Generation minus [Cleared Generation minus Cleared Net Interchange]) (MW) |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **CLEAREDSUPPLY** | NUMBER(12,2) | No | Cleared Generation (MW) |
| **CLEAREDLOSSES** | NUMBER(12,2) | No | Cleared Grid Losses (MW) |
| **CLEAREDNETINTERCHANGE** | NUMBER(12,2) | No | Cleared Net Export (positive) or Net Import (negative) (MW) |
| **CLEAREDDEMAND** | NUMBER(12,2) | No | Cleared Demand (MW) |
| **SUPPLYDEFICIT** | NUMBER(12,2) | No | Supply Deficit (MW) across at all loads in the Region = Max(0, Initial Demand minus Cleared Demand) where Cleared Demand = (Cleared Generation minus Cleared Losses minus Cleared Net Interchange).<br>Supply Deficit = Supply Deficit_RRN + Supply Deficit_NonRRN |
| **SUPPLYDEFICIT_RRN** | NUMBER(12,2) | No | Supply Deficit across all loads in the Zone that contains the Regional Reference Node (MW) |
| **SUPPLYDEFICIT_NONRRN** | NUMBER(12,2) | No | Supply Deficit across all loads in the Zone(s) that do not contain the Regional Reference Node (MW) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.7.8 New table: PDPASA_FNM_REGIONSUMMARY

| Comment | PDPASA_FNM_REGIONSUMMARY shows the summary of PDPASA outcome for each region. |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Every 30 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |

| Comment | PDPASA_FNM_REGIONSUMMARY shows the summary of PDPASA outcome for each region. |
|---|---|
| **Primary key (in order)** | RUN_DATETIME, INTERVAL_DATETIME, REGIONID |
| **Project** | STPASA Replacement project |

## New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **REGIONID** | VARCHAR2(20) | Yes | Region identifier |
| **LORCONDITION** | NUMBER(1,0) | No | Lack of Reserve Condition (LORCONDITION) > 0 if a supply deficit exists in the Zone for this Region that contains its Regional Reference Node<br>LORCONDITION indicates the most severe condition:<br>LORCONDITION = 3 if deficit in BASE run; else<br>LORCONDITION = 2 if deficit in RELIABILITY run; else<br>LORCONDITION = 1 if deficit in WARNING run |
| **DEFICITCONDITION** | NUMBER(1,0) | No | Deficit Condition (DEFICITCONDITION) > 0 if a supply deficit only exists in a Zone for this Region that does not contain its Regional Reference Node DEFICITCONDITION indicates the most severe condition:<br>DEFICITCONDITION = 3 if deficit in BASE run; else<br>DEFICITCONDITION = 2 if deficit in RELIABILITY run; else<br>DEFICITCONDITION = 1 if deficit in WARNING run |
| **DEMAND50** | NUMBER(12,2) | No | 50% Probability of Exceedance demand forecast (MW) |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **DEMAND50_UNSCHED_GEN** | NUMBER(12,2) | No | 50% Probability of Exceedance demand forecast plus Aggregate Generation Forecast of all non-scheduled and exempt generation (MW) |
| **SCHED_SS_GEN_CAPACITYAVAIL** | NUMBER(12,2) | No | Aggregate Bid MaxAvail of all scheduled generating units, scheduled bidirectional units (Gen side) and semi-scheduled generating units, with latter capped at UIGF (MW) |
| **UNSCHED_GEN_CAPACITYAVAIL** | NUMBER(12,2) | No | Aggregate Generation Forecast of all non-scheduled and exempt generation (MW) |
| **SCHED_SS_GEN_PASAAVAIL** | NUMBER(12,2) | No | Aggregate Bid PASAAvailability of all scheduled generating units and scheduled bidirectional units (Gen side) with a Bid Recall Period less than (Interval_DateTime minus Run_DateTime) plus UIGF for all semi-scheduled generating units (MW) |
| **SCHED_LOAD_CAPACITYAVAIL** | NUMBER(12,2) | No | Aggregate Bid MaxAvail of all scheduled loads (MW) |
| **SS_UIGF** | NUMBER(12,2) | No | Aggregate 50% Probability of Exceedance Unconstrained Intermittent Generation Forecast (UIGF) of all semi-scheduled generating units (MW) |
| **SS_SOLAR_UIGF** | NUMBER(12,2) | No | Aggregate 50% Probability of Exceedance Unconstrained Intermittent Generation Forecast (UIGF) of all solar semi-scheduled generating units (MW) |
| **SS_WIND_UIGF** | NUMBER(12,2) | No | Aggregate 50% Probability of Exceedance Unconstrained Intermittent Generation Forecast (UIGF) of all wind semi-scheduled generating units (MW) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.7.9 New table: PDPASA_FNM_ZONESOLUTION

| | |
|---|---|
| **Comment** | **PDPASA_FNM_ZONESOLUTION shows zone demand, cleared values of resources, spare capacity, losses for each run type and intervals.** |
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Every 30 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, RUNTYPE, INTERVAL_DATETIME, ZONEID |
| **Project** | STPASA Replacement project |

#### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **RUNTYPE** | VARCHAR2(20) | Yes | Run Type (BASE, RELIABILITY, WARNING) |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **ZONEID** | VARCHAR2(30) | Yes | Zone identifier |
| **REGIONID** | VARCHAR2(20) | No | Region identifier of the Region containing this Zone |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **LORCONDITION** | NUMBER(1,0) | No | Lack of Reserve Condition (LORCONDITION) > 0 if a supply deficit exists and this Zone contains the Regional Reference Node<br>LORCONDITION = 3 if deficit in BASE run<br>LORCONDITION = 2 if deficit in RELIABILITY run<br>LORCONDITION = 1 if deficit in WARNING run |
| **DEFICITCONDITION** | NUMBER(1,0) | No | Deficit Condition (DEFICITCONDITION) > 0 if a supply deficit exists and this Zone does not contain the Regional Reference Node<br>DEFICITCONDITION = 3 if deficit in BASE run<br>DEFICITCONDITION = 2 if deficit in RELIABILITY run<br>DEFICITCONDITION = 1 if deficit in WARNING run |
| **INITIALDEMAND** | NUMBER(12,2) | No | Most probable Demand Forecast adjusted by Demand Uncertainty Margin (MW) |
| **DEMAND_UNCERTAINTY_MARGIN** | NUMBER(12,2) | No | Aggregate Uncertainty Margin adjustment (increase) to most probable Demand Forecast (MW) |
| **SCHED_GEN_UNCERTAINTY_MARGIN** | NUMBER(12,2) | No | Aggregate Uncertainty Margin adjustment (decrease) to Scheduled Generation Bid Max Avail (MW) |
| **VRE_GEN_UNCERTAINTY_MARGIN** | NUMBER(12,2) | No | Aggregate Uncertainty Margin adjustment (decrease) to most probable VRE Forecast (MW) |
| **SCHED_GEN_AUX_LOAD** | NUMBER(12,2) | No | Aggregate Auxiliary Load adjustment to uncertainty-adjusted Bid MaxAvail of all scheduled generating units (MW) |
| **ENERGYUNCONSTRAINED_CLEARED** | NUMBER(12,2) | No | Cleared Generation from non energy-constrained resources - that is, excluding bidirectional units and generating units subject to daily energy limits (MW) |
| **ENERGYCONSTRAINED_CLEARED** | NUMBER(12,2) | No | Cleared Generation from energy-constrained resources - that is, from bidirectional units and generating units subject to daily energy limits (MW) |
| **BDU_CLEARED** | NUMBER(12,2) | No | Cleared Generation (positive) or Consumption (negative) from bidirectional units (MW) |
| **SS_CLEARED** | NUMBER(12,2) | No | Cleared Generation from semi-scheduled generating units (MW) |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **SS_SOLAR_CLEARED** | NUMBER(12,2) | No | Cleared Generation from semi-scheduled solar generating units (MW) |
| **SS_WIND_CLEARED** | NUMBER(12,2) | No | Cleared Generation from semi-scheduled wind generating units (MW) |
| **SPARECAPACITY** | NUMBER(12,2) | No | Spare generation capacity = max(0, Available Generation minus [Cleared Generation minus Cleared Net Interchange]) (MW) |
| **CLEAREDSUPPLY** | NUMBER(12,2) | No | Cleared Generation (MW) |
| **CLEAREDLOSSES** | NUMBER(12,2) | No | Cleared Grid Losses (MW) |
| **CLEAREDNETINTERCHANGE** | NUMBER(12,2) | No | Cleared Net Export (positive) or Net Import (negative) (MW) |
| **CLEAREDDEMAND** | NUMBER(12,2) | No | Cleared Demand (MW) |
| **SUPPLYDEFICIT** | NUMBER(12,2) | No | Supply Deficit at loads = Max(0, Initial Demand minus Cleared Demand) where Cleared Demand = (Cleared Generation minus Cleared Losses minus Cleared Net Interchange) (MW) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.7.10 New table: PDPASA_FNM_ZONESUMMARY

| Comment | **PDPASA_FNM_ZONESUMMARY shows the summary of PDPASA outcome for each zone.** |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Every 30 minutes |

| Comment | PDPASA_FNM_ZONESUMMARY shows the summary of PDPASA outcome for each zone. |
|---|---|
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, INTERVAL_DATETIME, ZONEID |
| **Project** | STPASA Replacement project |

## New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **ZONEID** | VARCHAR2(30) | Yes | Zone identifier |
| **REGIONID** | VARCHAR2(20) | No | Region identifier of the Region containing this Zone |
| **LORCONDITION** | NUMBER(1,0) | No | Lack of Reserve Condition (LORCONDITION) > 0 if a supply deficit exists and this Zone contains the Regional Reference Node<br>LORCONDITION indicates the most severe condition:<br>LORCONDITION = 3 if deficit in BASE run; else<br>LORCONDITION = 2 if deficit in RELIABILITY run; else<br>LORCONDITION = 1 if deficit in WARNING run |
| **DEFICITCONDITION** | NUMBER(1,0) | No | Deficit Condition (DEFICITCONDITION) > 0 if a supply deficit only exists in a Zone for this Region that does not contain the Regional Reference Node. DEFICITCONDITION indicates the most severe condition:<br>DEFICITCONDITION = 3 if deficit in BASE run; else<br>DEFICITCONDITION = 2 if deficit in RELIABILITY run; else<br>DEFICITCONDITION = 1 if deficit in WARNING run |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **DEMAND50** | NUMBER(12,2) | No | 50% Probability of Exceedance demand forecast (MW) |
| **DEMAND50_UNSCHED_GEN** | NUMBER(12,2) | No | 50% Probability of Exceedance demand forecast plus Aggregate Generation Forecast of all non-scheduled and exempt generation (MW) |
| **SCHED_SS_GEN_CAPACITYAVAIL** | NUMBER(12,2) | No | Aggregate Bid MaxAvail of all scheduled generating units, scheduled bidirectional units (Gen side) and semi-scheduled generating units, with latter capped at UIGF (MW) |
| **UNSCHED_GEN_CAPACITYAVAIL** | NUMBER(12,2) | No | Aggregate Generation Forecast of all non-scheduled and exempt generation (MW) |
| **SCHED_SS_GEN_PASAAVAIL** | NUMBER(12,2) | No | Aggregate Bid PASAAvailability of all scheduled generating units and scheduled bidirectional units (Gen side) with a Bid Recall Period less than (Interval_DateTime minus Run_DateTime) plus UIGF for all semi-scheduled generating units (MW) |
| **SCHED_LOAD_CAPACITYAVAIL** | NUMBER(12,2) | No | Aggregate Bid MaxAvail of all scheduled loads (MW) |
| **SS_UIGF** | NUMBER(12,2) | No | Aggregate 50% Probability of Exceedance Unconstrained Intermittent Generation Forecast (UIGF) of all semi-scheduled generating units (MW) |
| **SS_SOLAR_UIGF** | NUMBER(12,2) | No | Aggregate 50% Probability of Exceedance Unconstrained Intermittent Generation Forecast (UIGF) of all solar semi-scheduled generating units (MW) |
| **SS_WIND_UIGF** | NUMBER(12,2) | No | Aggregate 50% Probability of Exceedance Unconstrained Intermittent Generation Forecast (UIGF) of all wind semi-scheduled generating units (MW) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

## 4.8 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

### 4.8.1 Modified table: SET_NMAS_RECOVERY

| | |
|---|---|
| **Comment** | **SET_NMAS_RECOVERY sets out the NSCAS recovery data for payments other than testing This Table may also be used for NSCAS and Type 1 transitional services procured by AEMO under the ISF framework during 2025 and prior to the implementation of all system changes. During this time descriptions in these tables may not be correct.** |
| **Visibility** | Private |
| **Data volume** | Medium |
| **Trigger** | Settlement Run |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReport |
| **Primary key (in order)** | SETTLEMENTDATE, VERSIONNO, PERIODID, PARTICIPANTID, SERVICE, CONTRACTID, PAYMENTTYPE, REGIONID |
| **Project** | Improving Security Frameworks |

#### Modified Column

Data type changes only

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **SERVICE** | VARCHAR2(20) | Yes | The type of NSCAS service incl ISF Services. Current value values are:<br>REACTIVE<br>LOADSHED<br>RESTART<br>INERTIA, SYSTEM STRENGTH, TYPE1, TYPE2 |
| **CONTRACTID** | VARCHAR2(20) | Yes | The NMAS/ISF Contract Id |

### 4.8.2 Modified table: SET_NMAS_RECOVERY_RBF

Data type changes only

| | |
|---|---|
| **Comment** | **SET_NMAS_RECOVERY_RBF publishes the RBF for NSCAS non testing payments on a half hourly basis. This Table may also be used for NSCAS and Type 1 transitional services procured by AEMO under the ISF framework during 2025 and prior to the implementation of all system changes. During this time descriptions in these tables may not be correct.** |
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Settlement Run |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReport |

| | |
|---|---|
| **Comment** | **SET_NMAS_RECOVERY_RBF publishes the RBF for NSCAS non testing payments on a half hourly basis. This Table may also be used for NSCAS and Type 1 transitional services procured by AEMO under the ISF framework during 2025 and prior to the implementation of all system changes. During this time descriptions in these tables may not be correct.** |
| **Primary key (in order)** | SETTLEMENTDATE, VERSIONNO, PERIODID, SERVICE, CONTRACTID, PAYMENTTYPE, REGIONID |
| **Project** | Improving Security Frameworks |

## Modified Column

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **SERVICE** | VARCHAR2(20) | Yes | The type of NSCAS service incl ISF Services. Current value values are:<br>REACTIVE<br>LOADSHED<br>RESTART<br>INERTIA, SYSTEM STRENGTH, TYPE1, TYPE2 |
| **CONTRACTID** | VARCHAR2(20) | Yes | The NMAS/ISF Contract Id |

## 4.9 Package: STPASA_SOLUTION

### 4.9.1 New table: STPASA_FNM_CASESOLUTION

| Comment | STPASA_FNM_CASESOLUTION shows the case run details, including the available run types, LOR and Deficit condition for each case. |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Every 60 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME |
| **Project** | STPASA Replacement project |

### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **LORCONDITION** | NUMBER(1,0) | No | LORCONDITION is only set if supply deficit exists in a Zone that contains the Regional Reference Node<br>LORCONDITION indicates the most severe condition for the case:<br>LORCONDITION = 3 if deficit in BASE run, else = 2 if deficit in RELIABILITY run, else = 1 if deficit in WARNING run, else 0 |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **DEFICITCONDITION** | NUMBER(1,0) | No | DEFICITCONDITION is only set if supply deficit exists in a Zone that does NOT contain the Regional Reference Node<br>DEFICITCONDITION indicates the most severe condition for the case:<br>DEFICITCONDITION = 3 if deficit in BASE run, else = 2 if deficit in RELIABILITY run, else = 1 if deficit in WARNING run, else 0 |
| **BASE_RUN_AVAILABLE** | VARCHAR2(10) | No | YES = Available, NO = Not Available |
| **RELIABILITY_RUN_AVAILABLE** | VARCHAR2(10) | No | YES = Available, NO = Not Available |
| **WARNING_RUN_AVAILABLE** | VARCHAR2(10) | No | YES = Available, NO = Not Available |
| **PASAVERSION** | VARCHAR2(30) | No | Version of the PASA solver used to solve this case |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.9.2 New table: STPASA_FNM_CONSTRAINTSOLUTION

| Comment | **STPASA_FNM_CONSTRAINTSOLUTION shows the manual or thermal constraint (created by PASA), including marginal value, violation degree, LHS and RHS.** |
|---|---|
| **Visibility** | Public |
| **Data volume** | Large |
| **Trigger** | Every 60 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, RUNTYPE, INTERVAL_DATETIME, CONSTRAINTID |

| | |
|---|---|
| **Comment** | **STPASA_FNM_CONSTRAINTSOLUTION shows the manual or thermal constraint (created by PASA), including marginal value, violation degree, LHS and RHS.** |
| **Project** | STPASA Replacement project |

## New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **RUNTYPE** | VARCHAR2(20) | Yes | Run Type (BASE, RELIABILITY, WARNING) |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **CONSTRAINTID** | VARCHAR2(100) | Yes | Constraint identifier, either manual constraint (synonymous with GenConID) or thermal constraint created by PASA with format 'BASE_<BranchName>' or '<ContingencyID>_<BranchName>' |
| **MARGINALVALUE** | NUMBER(20,5) | No | Constraint Marginal Value ($/MW) |
| **VIOLATIONDEGREE** | NUMBER(15,5) | No | Constraint Violation Degree (MW) |
| **LHS** | NUMBER(15,5) | No | Constraint LHS (MW) |
| **RHS** | NUMBER(15,5) | No | Constraint RHS (MW) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.9.3 New table: STPASA_FNM_DUIDAVAILABILITY

| Comment | STPASA_FNM_DUIDAVAILABILITY shows Available Capacity, PASA Availability and given Recall Period for all scheduled |
|---|---|
| **Visibility** | Public |
| **Data volume** | Large |
| **Trigger** | Every 60 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, INTERVAL_DATETIME, DUID |
| **Project** | STPASA Replacement project |

#### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **DUID** | VARCHAR2(20) | Yes | NEM Dispatchable Unit Identifier |
| **BID_TRADINGDATE** | DATE | No | Trading Date of the energy bid |
| **BID_OFFERDATETIME** | DATE | No | Date Time that the energy bid was received |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **GENERATION_MAX_AVAILABILITY** | NUMBER (12,3) | No | Available Capacity for a scheduled generating unit, semi-scheduled generating unit, BDU (Gen side), WDR or MNSP |
| **GENERATION_PASA_AVAILABILITY** | NUMBER (12,3) | No | PASA Availability for a scheduled generating unit, BDU (Gen side), WDR or MNSP. Null for a semi-scheduled generating unit (MW) |
| **GENERATION_RECALL_PERIOD** | NUMBER (8,3) | No | Recall Period associated with the PASA Availability for a scheduled generating unit, BDU (Gen side), WDR or MNSP. Null for a semi-scheduled generating unit (Hours) |
| **LOAD_MAX_AVAILABILITY** | NUMBER (12,3) | No | Available Capacity for a scheduled load or BDU (Load side) (MW) |
| **LOAD_PASA_AVAILABILITY** | NUMBER (12,3) | No | PASA Availability for a scheduled load or BDU (Load side) (MW) |
| **LOAD_RECALL_PERIOD** | NUMBER (8,3) | No | Recall Period associated with the PASA Availability for a scheduled load or BDU (Load side) (Hours) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.9.4 New table: STPASA_FNM_INTERCONNECTORSOLN

| Comment | STPASA_FNM_INTERCONNECTORSOLN shows cleared Interconnector flow for the interval. |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Every 60 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, RUNTYPE, INTERVAL_DATETIME, INTERCONNECTORID |

| Comment | STPASA_FNM_INTERCONNECTORSOLN shows cleared Interconnector flow for the interval. |
|---|---|
| Project | STPASA Replacement project |

### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| RUN_DATETIME | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| RUNTYPE | VARCHAR2(20) | Yes | Run Type (BASE, RELIABILITY, WARNING) |
| INTERVAL_DATETIME | DATE | Yes | End date time of the interval |
| INTERCONNECTORID | VARCHAR2(10) | Yes | Interconnector Identifier |
| CLEAREDFLOW | NUMBER(12,2) | No | Cleared Interconnector flow (MW) |
| LASTCHANGED | DATE | No | Date time this record was created |

## 4.9.5 New table: STPASA_FNM_INTERZONALSOLUTION

| Comment | STPASA_FNM_INTERZONALSOLUTION shows cleared inter zonal flow for the interval and run type. |
|---|---|
| Visibility | Public |
| Data volume | Medium |
| Trigger | Every 60 minutes |

| Comment | STPASA_FNM_INTERZONALSOLUTION shows cleared inter zonal flow for the interval and run type. |
|---|---|
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, RUNTYPE, INTERVAL_DATETIME, INTERZONALCONNECTORID |
| **Project** | STPASA Replacement project |

## New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **RUNTYPE** | VARCHAR2(20) | Yes | Run Type (BASE, RELIABILITY, WARNING) |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **INTERZONALCONNECTORID** | VARCHAR2(50) | Yes | InterzonalConnector Identifier |
| **FROMZONEID** | VARCHAR2(30) | No | FromZoneID of the InterZonalConnectorID |
| **TOZONEID** | VARCHAR2(30) | No | ToZoneID of the InterZonalConnectorID |
| **CLEAREDFLOW** | NUMBER(12,2) | No | Cleared Interzonal flow (MW) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.9.6 New table: STPASA_FNM_REGIONSOLUTION

| Comment | STPASA_FNM_REGIONSOLUTION shows regional demand, cleared values of resources, spare capacity, losses for each run type and intervals. |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Every 60 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, RUNTYPE, INTERVAL_DATETIME, REGIONID |
| **Project** | STPASA Replacement project |

#### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **RUNTYPE** | VARCHAR2(20) | Yes | Run Type (BASE, RELIABILITY, WARNING) |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **REGIONID** | VARCHAR2(20) | Yes | Region Identifier |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **LORCONDITION** | NUMBER(1,0) | No | Lack of Reserve Condition (LORCONDITION) > 0 if a supply deficit exists in the Zone for this Region that contains its Regional Reference Node<br>LORCONDITION = 3 if deficit in BASE run<br>LORCONDITION = 2 if deficit in RELIABILITY run<br>LORCONDITION = 1 if deficit in WARNING run |
| **DEFICITCONDITION** | NUMBER(1,0) | No | Deficit Condition (DEFICITCONDITION) > 0 if a supply deficit only exists in a Zone for this Region that does not contain its Regional Reference Node<br>DEFICITCONDITION = 3 if deficit in BASE run<br>DEFICITCONDITION = 2 if deficit in RELIABILITY run<br>DEFICITCONDITION = 1 if deficit in WARNING run |
| **INITIALDEMAND** | NUMBER(12,2) | No | Most probable Demand Forecast adjusted by Demand Uncertainty Margin (MW) |
| **DEMAND_UNCERTAINTY_MARGIN** | NUMBER(12,2) | No | Aggregate Uncertainty Margin adjustment to most probable Demand Forecast (MW) |
| **SCHED_GEN_UNCERTAINTY_MARGIN** | NUMBER(12,2) | No | Aggregate Uncertainty Margin adjustment to Scheduled Generation Bid Max Avail (MW) |
| **VRE_GEN_UNCERTAINTY_MARGIN** | NUMBER(12,2) | No | Aggregate Uncertainty Margin adjustment to most probable VRE Forecast (MW) |
| **SCHED_GEN_AUX_LOAD** | NUMBER(12,2) | No | Aggregate Auxiliary Load adjustment to uncertainty-adjusted Bid MaxAvail of all scheduled generating units (MW) |
| **ENERGYUNCONSTRAINED_CLEARED** | NUMBER(12,2) | No | Cleared Generation from non energy-constrained resources - that is, excluding bidirectional units and generating units subject to daily energy limits (MW) |
| **ENERGYCONSTRAINED_CLEARED** | NUMBER(12,2) | No | Cleared Generation from energy-constrained resources - that is, from bidirectional units and generating units subject to daily energy limits (MW) |
| **BDU_CLEARED** | NUMBER(12,2) | No | Cleared Generation (positive) or Consumption (negative) from bidirectional units (MW) |
| **SS_CLEARED** | NUMBER(12,2) | No | Cleared Generation from semi-scheduled generating units (MW) |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **SS_SOLAR_CLEARED** | NUMBER(12,2) | No | Cleared Generation from semi-scheduled solar generating units (MW) |
| **SS_WIND_CLEARED** | NUMBER(12,2) | No | Cleared Generation from semi-scheduled wind generating units (MW) |
| **SPARECAPACITY** | NUMBER(12,2) | No | Spare Generation Capacity = max(0, Available Generation minus [Cleared Generation minus Cleared Net Interchange]) (MW) |
| **CLEAREDSUPPLY** | NUMBER(12,2) | No | Cleared Generation (MW) |
| **CLEAREDLOSSES** | NUMBER(12,2) | No | Cleared Grid Losses (MW) |
| **CLEAREDDEMAND** | NUMBER(12,2) | No | Cleared Demand (MW) |
| **CLEAREDNETINTERCHANGE** | NUMBER(12,2) | No | Cleared Net Export (positive) or Net Import (negative) (MW) |
| **SUPPLYDEFICIT** | NUMBER(12,2) | No | Supply Deficit (MW) across at all loads in the Region = Max(0, Initial Demand minus Cleared Demand) where Cleared Demand = (Cleared Generation minus Cleared Losses minus Cleared Net Interchange).<br>Supply Deficit = Supply Deficit_RRN + Supply Deficit_NonRRN |
| **SUPPLYDEFICIT_RRN** | NUMBER(12,2) | No | Supply Deficit across all loads in the Zone that contains the Regional Reference Node (MW) |
| **SUPPLYDEFICIT_NONRRN** | NUMBER(12,2) | No | Supply Deficit across all loads in the Zone(s) that do not contain the Regional Reference Node (MW) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.9.7 New table: STPASA_FNM_REGIONSUMMARY

| Comment | **STPASA_FNM_REGIONSUMMARY shows the summary of STPASA outcome for each region.** |
|---|---|
| **Visibility** | Public |

| Comment | STPASA_FNM_REGIONSUMMARY shows the summary of STPASA outcome for each region. |
|---|---|
| **Data volume** | Medium |
| **Trigger** | Every 60 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, INTERVAL_DATETIME, REGIONID |
| **Project** | STPASA Replacement project |

## New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **REGIONID** | VARCHAR2(20) | Yes | Region identifier |
| **LORCONDITION** | NUMBER(1,0) | No | Lack of Reserve Condition (LORCONDITION) > 0 if a supply deficit exists in the Zone for this Region that contains its Regional Reference Node<br>LORCONDITION indicates the most severe condition:<br>LORCONDITION = 3 if deficit in BASE run; else<br>LORCONDITION = 2 if deficit in RELIABILITY run; else<br>LORCONDITION = 1 if deficit in WARNING run |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **DEFICITCONDITION** | NUMBER(1,0) | No | Deficit Condition (DEFICITCONDITION) > 0 if a supply deficit only exists in a Zone for this Region that does not contain its Regional Reference Node.<br>DEFICITCONDITION indicates the most severe condition:<br>DEFICITCONDITION = 3 if deficit in BASE run; else<br>DEFICITCONDITION = 2 if deficit in RELIABILITY run; else<br>DEFICITCONDITION = 1 if deficit in WARNING run |
| **DEMAND50** | NUMBER(12,2) | No | 50% Probability of Exceedance demand forecast (MW) |
| **DEMAND50_UNSCHED_GEN** | NUMBER(12,2) | No | 50% Probability of Exceedance demand forecast plus Aggregate Generation Forecast of all non-scheduled and exempt generation (MW) |
| **SCHED_SS_GEN_CAPACITYAVAIL** | NUMBER(12,2) | No | Aggregate Bid MaxAvail of all scheduled generating units, scheduled bidirectional units (Gen side) and semi-scheduled generating units, with latter capped at UIGF (MW) |
| **UNSCHED_GEN_CAPACITYAVAIL** | NUMBER(12,2) | No | Aggregate Generation Forecast of all non-scheduled and exempt generation (MW) |
| **SCHED_SS_GEN_PASAAVAIL** | NUMBER(12,2) | No | Aggregate Bid PASAAvailability of all scheduled generating units and scheduled bidirectional units (Gen side) with a Bid Recall Period less than (Interval_DateTime minus Run_DateTime) plus UIGF for all semi-scheduled generating units (MW) |
| **SCHED_LOAD_CAPACITYAVAIL** | NUMBER(12,2) | No | Aggregate Bid MaxAvail of all scheduled loads (MW) |
| **SS_UIGF** | NUMBER(12,2) | No | Aggregate 50% Probability of Exceedance Unconstrained Intermittent Generation Forecast (UIGF) of all semi-scheduled generating units (MW) |
| **SS_SOLAR_UIGF** | NUMBER(12,2) | No | Aggregate 50% Probability of Exceedance Unconstrained Intermittent Generation Forecast (UIGF) of all solar semi-scheduled generating units (MW) |
| **SS_WIND_UIGF** | NUMBER(12,2) | No | Aggregate 50% Probability of Exceedance Unconstrained Intermittent Generation Forecast (UIGF) of all wind semi-scheduled generating units (MW) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.9.8 New table: STPASA_FNM_ZONESOLUTION

| | |
|---|---|
| **Comment** | **STPASA_FNM_ZONESOLUTION shows zone demand, cleared value of resources, spare capacity, losses for each run type and interval.** |
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Every 60 minutes |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, RUNTYPE, INTERVAL_DATETIME, ZONEID |
| **Project** | STPASA Replacement project |

#### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **RUNTYPE** | VARCHAR2(20) | Yes | Run Type (BASE, RELIABILITY, WARNING) |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **ZONEID** | VARCHAR2(30) | Yes | Zone identifier |
| **REGIONID** | VARCHAR2(20) | No | Region identifier of the Region containing this Zone |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **LORCONDITION** | NUMBER(1,0) | No | Lack of Reserve Condition (LORCONDITION) > 0 if a supply deficit exists and this Zone contains the Regional Reference Node<br>LORCONDITION = 3 if deficit in BASE run<br>LORCONDITION = 2 if deficit in RELIABILITY run<br>LORCONDITION = 1 if deficit in WARNING run |
| **DEFICITCONDITION** | NUMBER(1,0) | No | Deficit Condition (DEFICITCONDITION) > 0 if a supply deficit exists and this Zone does not contain the Regional Reference Node.<br>DEFICITCONDITION = 3 if deficit in BASE run<br>DEFICITCONDITION = 2 if deficit in RELIABILITY run<br>DEFICITCONDITION = 1 if deficit in WARNING run |
| **INITIALDEMAND** | NUMBER(12,2) | No | Most probable Demand Forecast adjusted by Demand Uncertainty Margin (MW) |
| **DEMAND_UNCERTAINTY_MARGIN** | NUMBER(12,2) | No | Aggregate Uncertainty Margin adjustment (increase) to most probable Demand Forecast (MW) |
| **SCHED_GEN_UNCERTAINTY_MARGIN** | NUMBER(12,2) | No | Aggregate Uncertainty Margin adjustment (decrease) to Scheduled Generation Bid Max Avail (MW) |
| **VRE_GEN_UNCERTAINTY_MARGIN** | NUMBER(12,2) | No | Aggregate Uncertainty Margin adjustment (decrease) to most probable VRE Forecast (MW) |
| **SCHED_GEN_AUX_LOAD** | NUMBER(12,2) | No | Aggregate Auxiliary Load adjustment to uncertainty-adjusted Bid MaxAvail of all scheduled generating units (MW) |
| **ENERGYUNCONSTRAINED_CLEARED** | NUMBER(12,2) | No | Cleared Generation from non energy-constrained resources - that is, excluding bidirectional units and generating units subject to daily energy limits (MW) |
| **ENERGYCONSTRAINED_CLEARED** | NUMBER(12,2) | No | Cleared Generation from energy-constrained resources - that is, from bidirectional units and generating units subject to daily energy limits (MW) |
| **BDU_CLEARED** | NUMBER(12,2) | No | Cleared Generation (positive) or Consumption (negative) from bidirectional units (MW) |
| **SS_CLEARED** | NUMBER(12,2) | No | Cleared Generation from semi-scheduled generating units (MW) |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **SS_SOLAR_CLEARED** | NUMBER(12,2) | No | Cleared Generation from semi-scheduled solar generating units (MW) |
| **SS_WIND_CLEARED** | NUMBER(12,2) | No | Cleared Generation from semi-scheduled wind generating units (MW) |
| **SPARECAPACITY** | NUMBER(12,2) | No | Spare generation capacity = max(0, Available Generation minus [Cleared Generation minus Cleared Net Interchange]) (MW) |
| **CLEAREDSUPPLY** | NUMBER(12,2) | No | Cleared Generation (MW) |
| **CLEAREDLOSSES** | NUMBER(12,2) | No | Cleared Grid Losses (MW) |
| **CLEAREDNETINTERCHANGE** | NUMBER(12,2) | No | Cleared Net Export (positive) or Net Import (negative) (MW) |
| **CLEAREDDEMAND** | NUMBER(12,2) | No | Cleared Demand (MW) |
| **SUPPLYDEFICIT** | NUMBER(12,2) | No | Supply Deficit at loads = Max(0, Initial Demand minus Cleared Demand) where Cleared Demand = (Cleared Generation minus Cleared Losses minus Cleared Net Interchange) (MW) |
| **LASTCHANGED** | DATE | No | Date time this record was created |

### 4.9.9 New table: STPASA_FNM_ZONESUMMARY

| Comment | STPASA_FNM_ZONESUMMARY shows the summary of STPASA outcome for each zone. |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Every 60 minutes |

| Comment | STPASA_FNM_ZONESUMMARY shows the summary of STPASA outcome for each zone. |
|---|---|
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | RUN_DATETIME, INTERVAL_DATETIME, ZONEID |
| **Project** | STPASA Replacement project |

## New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **RUN_DATETIME** | DATE | Yes | Unique Timestamp Identifier for this run, identified by the first half hour ended interval of the run |
| **INTERVAL_DATETIME** | DATE | Yes | End date time of the interval |
| **ZONEID** | VARCHAR2(30) | Yes | Zone identifier |
| **REGIONID** | VARCHAR2(20) | No | Region identifier of the Region containing this Zone |
| **LORCONDITION** | NUMBER(1,0) | No | Lack of Reserve Condition (LORCONDITION) > 0 if a supply deficit exists and this Zone contains the Regional Reference Node<br>LORCONDITION indicates the most severe condition:<br>LORCONDITION = 3 if deficit in BASE run; else<br>LORCONDITION = 2 if deficit in RELIABILITY run; else<br>LORCONDITION = 1 if deficit in WARNING run |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **DEFICITCONDITION** | NUMBER(1,0) | No | Deficit Condition (DEFICITCONDITION) > 0 if a supply deficit only exists in a Zone for this Region that does not contain the Regional Reference Node<br>DEFICITCONDITION indicates the most severe condition:<br>DEFICITCONDITION = 3 if deficit in BASE run; else<br>DEFICITCONDITION = 2 if deficit in RELIABILITY run; else<br>DEFICITCONDITION = 1 if deficit in WARNING run |
| **DEMAND50** | NUMBER(12,2) | No | 50% Probability of Exceedance demand forecast (MW) |
| **DEMAND50_UNSCHED_GEN** | NUMBER(12,2) | No | 50% Probability of Exceedance demand forecast plus Aggregate Generation Forecast of all non-scheduled and exempt generation (MW) |
| **SCHED_SS_GEN_CAPACITYAVAIL** | NUMBER(12,2) | No | Aggregate Bid MaxAvail of all scheduled generating units, scheduled bidirectional units (Gen side) and semi-scheduled generating units, with latter capped at UIGF (MW) |
| **UNSCHED_GEN_CAPACITYAVAIL** | NUMBER(12,2) | No | Aggregate Generation Forecast of all non-scheduled and exempt generation (MW) |
| **SCHED_SS_GEN_PASAAVAIL** | NUMBER(12,2) | No | Aggregate Bid PASAAvailability of all scheduled generating units and scheduled bidirectional units (Gen side) with a Bid Recall Period less than (Interval_DateTime minus Run_DateTime) plus UIGF for all semi-scheduled generating units (MW) |
| **SCHED_LOAD_CAPACITYAVAIL** | NUMBER(12,2) | No | Aggregate Bid MaxAvail of all scheduled loads (MW) |
| **SS_UIGF** | NUMBER(12,2) | No | Aggregate 50% Probability of Exceedance Unconstrained Intermittent Generation Forecast (UIGF) of all semi-scheduled generating units (MW) |
| **SS_SOLAR_UIGF** | NUMBER(12,2) | No | Aggregate 50% Probability of Exceedance Unconstrained Intermittent Generation Forecast (UIGF) of all solar semi-scheduled generating units (MW) |
| **SS_WIND_UIGF** | NUMBER(12,2) | No | Aggregate 50% Probability of Exceedance Unconstrained Intermittent Generation Forecast (UIGF) of all wind semi-scheduled generating units (MW) |
| **LASTCHANGED** | DATE | No | ate time this record was created |

### 4.9.10 Modified table: STPASA_REGIONSOLUTION

| | |
|---|---|
| **Comment** | **STPASA_REGIONSOLUTION shows the results of the regional capacity, maximum surplus reserve and maximum spare capacity evaluations for each period of the study. Note that the RELIABILITY_LRC and OUTAGE_LRC Run Types are no longer reported from 31 July 2025.** |
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | Start of each STPASA run (every hour). |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | INTERVAL_DATETIME, REGIONID, RUN_DATETIME, RUNTYPE |
| **Project** | ST PASA Procedure and Recall Period |

### Modified columns

Comment changes only

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **AGGREGATEPASAAVAILABILITY** | NUMBER(12,0) | No | Sum of PASAAVAILABILITY for all scheduled generating units and scheduled bidirectional units (Gen side) with a Recall_Period <= 24 hours plus the sum of Unconstrained Intermittent Generation Forecasts (UIGF) for all semi-scheduled generating units. For the RELIABILITY_LRC and OUTAGE_LRC runs, UIGF is the POE90 forecast. For the LOR Run, UIGF is the POE50 forecast. Note that the RELIABILITY_LRC and OUTAGE_LRC Run Types are discontinued from 31 July 2025. From March 2026, AGGREGATEPASAAVAILABILITY changes from that with Recall_Period <= 24 to that achievable by the relevant INTERVAL_DATETIME if recalled at the start of the run. |

## 4.10 Package: SYSTEM_SECURITY_MANAGEMENT

### 4.10.1 New table: SSM_INDICATIVE_ROLL_DUID

| Comment | Indicative rolling DUID schedule provides notice of system security status to service providers/TNSP. The intent is to provide forewarning of possible enablement instruction that may be required |
|---|---|
| **Visibility** | Private |
| **Data volume** | Medium |
| **Trigger** | SSM Post Processing completion (currently every 30 minutes) |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |

| | |
|---|---|
| **Comment** | **Indicative rolling DUID schedule provides notice of system security status to service providers/TNSP. The intent is to provide forewarning of possible enablement instruction that may be required** |
| **Primary key (in order)** | VERSION_DATETIME, INTERVAL_DATETIME, DUID, CONTRACT_ID |
| **Project** | Improving Security Frameworks |

## New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **VERSION_DATETIME** | DATE | YES | Version date time |
| **INTERVAL_DATETIME** | DATE | YES | Interval date time |
| **DUID** | VARCHAR2(20) | YES | Dispatchable Unit Identifier |
| **CONTRACT_ID** | VARCHAR2(20) | YES | Unique Contract Identifier used to create enablement. |
| **DUID_PARTICIPANTID** | VARCHAR2(20) | NO | Primary recipient (SSM Service Provider) of enablement instruction. |
| **INSTRUCTION_ID** | VARCHAR2(20) | NO | Unique Instruction Identifier. Null where not applicable. |
| **DUID_STATUS** | VARCHAR2(40) | NO | Scheduled pending, Scheduled approved, Instruction issued, Fulfilment, Available, Offline, Online, Outage |
| **MIN_DISPATCH_MW** | NUMBER(18,8) | NO | Minimum Dispatch Target required for DUID to enable the contract. |
| **EQUIPMENT_TYPE** | VARCHAR2(40) | NO | Dispatchable Unit resource (for example, GENERATOR, LOAD, BIDIRECTIONAL, SYNCHRONOUS CONDENSER). |
| **LASTCHANGED** | DATE | NO | Last changed date |

### 4.10.2 New table: SSM_INDICATIVE_ROLL_REGION

| Comment | Indicative rolling Region schedule provides notice of system security status to service providers/TNSP. The intent is to provide the security strength status of a region |
|---|---|
| **Visibility** | Public |
| **Data volume** | Medium |
| **Trigger** | SSM Post Processing completion (currently every 30 minutes) |
| **Participant file share location** | <#INTRFACE>\<#PARTICIPANTID>\IMPORT\REPORTS\CSVReports |
| **Primary key (in order)** | VERSION_DATETIME, INTERVAL_DATETIME, REGIONID |
| **Project** | Improving Security Frameworks |

#### New columns

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **VERSION_DATETIME** | DATE | YES | Version date time |
| **INTERVAL_DATETIME** | DATE | YES | Interval date time |
| **REGIONID** | VARCHAR2(20) | YES | Region |
| **REGION_STATUS** | VARCHAR2(40) | NO | Secure, Resolved, Not Secure |
| **DUID_COUNT_FIRM** | NUMBER(4,0) | NO | Sum of firm units enabled for the region with confirmed enablement instruction(s) sent |

| Field name | Data type | Primary key | Comment |
|---|---|---|---|
| **DUID_COUNT_SPECULATIVE** | NUMBER(4,0) | NO | Sum of proposed units enabled for the region where enablement instruction(s) not sent |
| **LASTCHANGED** | DATE | NO | Last changed date |

## 4.11 File interface changes

| Package | File ID | Description | Batcher file masks | Frequency | Change | Auto-subscription | |
|---|---|---|---|---|---|---|---|
| **BILLING_CONFIG** | BILLINGCALENDAR | - | - | - | Modified | No | - |
| **BILLING_RUN** | BILLING | - | - | - | Modified | No | - |
| | BILLING_INIT | - | - | - | Modified | No | - |
| **DISPATCH** | DISPATCH_NEGATIVE_RESIDUE | - | - | - | Modified | No | - |
| **GENERIC_CONSTRAINT** | PASA_CONTINGENCY | - | - | on change | New | Yes | - |
| **SYSTEM_SECURITY_MANAGEMENT** | SSM_FORECAST | - | - | 30 minutes | New | Yes | - |
| **STPASA_SOLUTION** | STPASA_FNM | - | - | Hourly | New | Yes | - |
| **PARTICIPANT_REGISTRATION** | PASA_ZONE_REGION | - | - | on change | New | Yes | - |
| | PASA_INTERZONAL | - | - | on change | New | Yes | - |
| **PDPASA** | PDPASA_FNM | - | - | 30 minutes | New | Yes | - |

## 4.12 Participant interfaces changes

| Package | Data model table | File ID | CSV report type | Event ID | Change |
|---|---|---|---|---|---|
| **BILLING_CONFIG** | BILLINGCALENDAR | BILLINGCALENDAR | BILLING_CONFIG,BILLINGCALENDAR,3 | CSV_BILLINGCALENDAR | Modified |
| **BILLING_RUN** | BILLINGRUNTRK | BILLING | BILLING,RUNTRK,6 | BILLING | Modified |
| | BILLINGRUNTRK | BILLING_INIT | BILLING,RUNTRK,6 | BILLING_INITIAL | Modified |
| **DISPATCH** | NEGATIVE_RESIDUE | DISPATCH_NEGATIVE_RESIDUE | DISPATCH,NEGATIVE_RESIDUE,2 | DISPATCH_NRM | Modified |
| **SYSTEM_SECURITY_MANAGEMENT** | SSM_INDICATIVE_ROLL_DUID | SSM_FORECAST | SSM,INDICATIVE_ROLL_DUID,1 | SSM_POSTPROCESS | New |
| | SSM_INDICATIVE_ROLL_REGION | SSM_FORECAST | SSM,INDICATIVE_ROLL_REGION,1 | SSM_POSTPROCESS | New |
| **STPASA_SOLUTION** | STPASA_FNM_CASESOLUTION | STPASA_FNM | STPASA,FNM_CASESOLUTION,1 | STPASA | New |
| | STPASA_FNM_CONSTRAINTSOLUTION | STPASA_FNM | STPASA,FNM_CONSTRAINTSOLUTION,1 | STPASA | New |
| | STPASA_FNM_DUIDAVAILABILITY | STPASA_FNM_DUIDAVAILABILITY | STPASA,FNM_DUIDAVAILABILITY,1 | GENERAL_1HOUR_EVENT | New |
| | STPASA_FNM_INTERCONNECTORSOLN | STPASA_FNM | STPASA,FNM_INTERCONNECTORSOLN,1 | STPASA | New |
| | STPASA_FNM_INTERZONALSOLUTION | STPASA_FNM | STPASA,FNM_INTERZONALSOLUTION,1 | STPASA | New |

| Package | Data model table | File ID | CSV report type | Event ID | Change |
|---|---|---|---|---|---|
| | STPASA_FNM_REGIONSOLUTION | STPASA_FNM | STPASA,FNM_REGIONSOLUTION,1 | STPASA | New |
| | STPASA_FNM_REGIONSUMMARY | STPASA_FNM | STPASA,FNM_REGIONSUMMARY,1 | STPASA | New |
| | STPASA_FNM_ZONESOLUTION | STPASA_FNM | STPASA,FNM_ZONESOLUTION,1 | STPASA | New |
| | STPASA_FNM_ZONESUMMARY | STPASA_FNM | STPASA,FNM_ZONESUMMARY,1 | STPASA | New |
| **PDPASA** | PDPASA_FNM_CASESOLUTION | PDPASA_FNM | PDPASA,FNM_CASESOLUTION,1 | PDPASA | New |
| | PDPASA_FNM_CONSTRAINTSOLUTION | PDPASA_FNM | PDPASA,FNM_CONSTRAINTSOLUTION,1 | PDPASA | New |
| | PDPASA_FNM_DUIDAVAILABILITY | PDPASA_FNM_DUIDAVAILABILITY | PDPASA,FNM_DUIDAVAILABILITY,1 | PREDISPATCH | New |
| | PDPASA_FNM_INTERCONNECTORSOLN | PDPASA_FNM | PDPASA,FNM_INTERCONNECTORSOLN,1 | PDPASA | New |
| | PDPASA_FNM_INTERZONALSOLUTION | PDPASA_FNM | PDPASA,FNM_INTERZONALSOLUTION,1 | PDPASA | New |
| | PDPASA_FNM_REGIONSOLUTION | PDPASA_FNM | PDPASA,FNM_REGIONSOLUTION,1 | PDPASA | New |
| | PDPASA_FNM_REGIONSUMMARY | PDPASA_FNM | PDPASA,FNM_REGIONSUMMARY,1 | PDPASA | New |
| | PDPASA_FNM_ZONESOLUTION | PDPASA_FNM | PDPASA,FNM_ZONESOLUTION,1 | PDPASA | New |

| Package | Data model table | File ID | CSV report type | Event ID | Change |
|---|---|---|---|---|---|
| | PDPASA_FNM_ZONESUMMARY | PDPASA_FNM | PDPASA,FNM_ZONESUMMARY,1 | PDPASA | New |
| **PARTICIPANT_REGISTRATION** | PASA_ZONE_REGION_MAPPING | PASA_ZONE_REGION | PARTICIPANT_REGISTRATION,PASA_INTERZONAL_MAPPING,1 | PASA_ZONE_REGIONNew | New |
| | PASA_INTERZONAL_MAPPING | PASA_INTERZONAL | PARTICIPANT_REGISTRATION,PASA_ZONE_REGION_MAPPING,1 | PASA_INTERZONALNew | New |
| **GENERIC_CONSTRAINT** | GENCONDATA | GENCONDATA_TRG | GENCONDATA,7 | GENCONDATA_TRG | Modified |
| | PASA_CONTINGENCY_DEFINITION | PASA_CONTINGENCY | GENERIC_CONSTRAINT,PASA_CONTINGENCY_DEFINITION,1 | PASA_CONTINGENCYNew | New |

## 4.13 Discontinued reports

| Data model table | File ID | Delivered in file | CSV report type | Replaced by |
|---|---|---|---|---|
| In alphabetical order | - | *_FILEID_LEGACY*.CSV | BILLING,BILLINGCPDATA,7 | BILLING,BILLINGCPDATA,8 |

# 5 Reports

No updates to non-data model reports.

# 6 FAQs

NoThe FAQs for this data modelare available after the April MSUG.

# 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)**.

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