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# MMS Data Model Upgrade Report

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MMS Data Model v4.29 Oracle

**15/08/2019**

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# 1 Description of the model MMS Data Model v4.29 Oracle

## Background

The MMS Data Model is the definition of the interface to participants of data published by AEMO from the NEM system. A database conforming to the MMS Data Model can contain a local copy of all current participant-specific data recorded in the main NEM production database. The target databases have been called such names as the Participant Database, the Participant InfoServer and the Replica Database.

The MMS Data Model includes database tables, indexes and primary keys. The model is currently exposed as a physical model, so is different in presentation for each RDBMS. However, the same logical model underlies all the physical models published by AEMO.

The MMS Data Model is the target model for products transferring data from AEMO to each participant. Current product supplied by AEMO for data transfer is Participant Data Replication (PDR), with some support for the superseded Parser.

Compatibility of the transfer products with the MMS Data Model is the responsibility of those products and their configuration. AEMO's intention is to supply the data transfer products pre-configured to deliver data consistent with the MMS Data Model, noting differences where they occur (e.g. for historical reasons).

## Entity Diagrams

The entity diagrams show the key columns. Relationships have now been included in many cases.

### Note:

The National Electricity Market registration classification of Yarwun Power Station Unit 1 (dispatchable unit ID: YARWUN\_1) is market non-scheduled generating unit. However, it is a condition of the registration of this unit that the Registered Participant complies with some of the obligations of a Scheduled Generator. This unit is dispatched as a scheduled generating unit with respect to its dispatch offers, targets and generation outputs. Accordingly, information about YARWUN\_1 is reported as scheduled generating unit information.

## 2 Notes

Each table description has a Note providing some information relevant to the table.

### 2.1 Visibility

Visibility refers to the nature of confidentiality of data in the table. Each table has one of the following entries, each described here.

Private: meaning the data is confidential to the Participant (e.g. BILLINGFEES).

Public: meaning all Participants have access to the data (e.g. DISPATCHPRICE).

Private, Public Next-Day: meaning the data is confidential until available for public release at beginning of next day (i.e. 4am) (e.g. BIDDAYOFFER).

Private & Public: meaning some items are private and some are public (e.g. MARKETNOTICES).

### 3 Package: BILLING\_RUN

*Name* BILLING\_RUN

*Comment* 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.

#### 3.1 List of tables

Name	Comment
BILLINGIRPARTSURPLUSSUM	BILLINGIRPARTSURPLUSSUM supports the Settlements Residue Auction, by showing the weekly billing SRA distribution and associated fees to Auction participants.





### 3.3 Table: BILLINGIRPARTSURPLUSSUM

<i>Name</i>	BILLINGIRPARTSURPLUSSUM
<i>Comment</i>	BILLINGIRPARTSURPLUSSUM supports the Settlements Residue Auction, by showing the weekly billing SRA distribution and associated fees to Auction participants.

#### 3.3.1 Description

BILLINGIRPARTSURPLUSSUM data is confidential to the relevant participant.

##### Source

BILLINGIRPARTSURPLUSSUM is populated by the posting of a billing run where the participant has purchased auction units relating to that billing run.

##### Volume

An indicative maximum is 16 records inserted per billing run, or 166 records inserted per week.

#### 3.3.2 Notes

Name	Comment	Value
Visibility	Data in this table is:	Private

#### 3.3.3 Primary Key Columns

Name

BILLRUNNO

CONTRACTYEAR

FROMREGIONID

INTERCONNECTORID

PARTICIPANTID

QUARTER

RESIDUEYEAR

WEEKNO

### 3.3.4 Index Columns

Name

RESIDUEYEAR

QUARTER

### 3.3.5 Index Columns

Name

LASTCHANGED

### 3.3.6 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4,0)	X	SRA Contracted Year (calendar year)
WEEKNO	NUMBER(3,0)	X	Week no within the contract year. Week no 1 is the week containing 1st January
RESIDUEYEAR	NUMBER(4,0)	X	Year of the Residue Contract; may differ from the calendar year at week 1.
QUARTER	NUMBER(2,0)	X	Residue Contract Quarter
BILLRUNNO	NUMBER(3,0)	X	The sequential number of a billing run
INTERCONNECTORID	VARCHAR2(10)	X	Contracted Interconnector

FROMREGIONID	VARCHAR2(10)	X	Nominated source region for Interconnector
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier
TOTALSURPLUS	NUMBER(15,5)		Total residue amount allocated to participant
AUCTIONFEES	NUMBER(15,5)		Total auction fees payable in this week (negative amount). If $AUCTIONFEES + AUCTIONFEES\_GST \geq TOTALSURPLUS$ then $ACTUALPAYMENT$ is zero.
ACTUALPAYMENT	NUMBER(15,5)		Net payment to participant, including auction fees
AUCTIONFEES_GST	NUMBER(15,5)		The GST amount on the auction fees, always being zero.
LASTCHANGED	DATE		Date and time this record was last modified
CSP_DEROGATION_AMOUNT	NUMBER(18,8)		The CSP derogation amount applied as an adjustment to SRA.
UNADJUSTED_IRSR	NUMBER(18,8)		The SRA amount unadjusted by CSP.
AUCTIONFEES_TOTALGROSS_ADJ	Number(18,8)		The adjusted total Auction fees for the Directional Interconnector. Calculated as the amount of the total fees due from the SRA Auction Participant, pro-rated based on the total surplus for each Directional Interconnector the SRA Auction Participant contracted.

## 4 Package: DISPATCH

<i>Name</i>	DISPATCH
<i>Comment</i>	Results from a published Dispatch Run

### 4.1 List of tables

Name	Comment
DISPATCHREGIONSUM	DISPATCHREGIONSUM sets out the 5-minute solution for each dispatch run for each region, including the Frequency Control Ancillary Services (FCAS) services provided. Additional fields are for the Raise Regulation and Lower Regulation Ancillary Services plus improvements to demand calculations.



## 4.3 Table: DISPATCHREGIONSUM

<i>Name</i>	DISPATCHREGIONSUM
<i>Comment</i>	DISPATCHREGIONSUM sets out the 5-minute solution for each dispatch run for each region, including the Frequency Control Ancillary Services (FCAS) services provided. Additional fields are for the Raise Regulation and Lower Regulation Ancillary Services plus improvements to demand calculations.

### 4.3.1 Description

DISPATCHREGIONSUM is public data, and is available to all participants.

#### Source

DISPATCHREGIONSUM updates every 5 minutes.

#### Note

For details of calculations about load calculations, refer to Chapter 3 of the "Statement of Opportunities"

\*\*\* "Actual FCAS availability" is determined in a post-processing step based on the energy target (TotalCleared) and bid FCAS trapezium for that interval. However, if the unit is outside the bid FCAS trapezium at the start of the interval (InitialMW), the "Actual FCAS availability" is set to zero. For regulation services, the trapezium is the most restrictive of the bid/SCADA trapezium values.

From 16 February 2006, the old reserve values are no longer populated (i.e. are null), being LORSurplus and LRCSurplus. For more details on the changes to Reporting of Reserve Condition Data, refer to AEMO Communication 2042. For the best available indicator of reserve condition in each of the regions of the NEM for each trading interval, refer to the latest run of the Pre-Dispatch PASA (see table PDPASA\_REGIONSOLUTION).

### 4.3.2 Notes

Name	Comment	Value
Visibility	Data in this table is:	Public

### 4.3.3 Primary Key Columns

Name  
DISPATCHINTERVAL  
INTERVENTION  
REGIONID  
RUNNO

SETTLEMENTDATE

### 4.3.4 Index Columns

Name

LASTCHANGED

### 4.3.5 Content

Name	Data Type	Mandatory	Comment
SETTLEMENTDATE	DATE	X	Market date and time starting at 04:05
RUNNO	NUMBER(3,0)	X	Dispatch run no; always 1
REGIONID	VARCHAR2(10)	X	Region Identifier
DISPATCHINTERVAL	NUMBER(22,0)	X	Dispatch period identifier, from 001 to 288 in format YYYYMMDDPPP.
INTERVENTION	NUMBER(2,0)	X	Manual Intervention flag
TOTALDEMAND	NUMBER(15,5)		Demand (less loads)
AVAILABLEGENERATION	NUMBER(15,5)		Aggregate generation bid available in region
AVAILABLELOAD	NUMBER(15,5)		Aggregate load bid available in region
DEMANDFORECAST	NUMBER(15,5)		5 minute forecast adjust
DISPATCHABLEGENERATION	NUMBER(15,5)		Dispatched Generation

DISPATCHABLELOAD	NUMBER(15,5)		Dispatched Load (add to total demand to get inherent region demand).
NETINTERCHANGE	NUMBER(15,5)		Net interconnector flow from the regional reference node
EXCESSGENERATION	NUMBER(15,5)		MW quantity of excess
LOWER5MINDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Lower 5 min MW dispatch
LOWER5MINIMPORT	NUMBER(15,5)		Not used since Dec 2003. Lower 5 min MW imported
LOWER5MINLOCALDISPATCH	NUMBER(15,5)		Lower 5 min local dispatch
LOWER5MINLOCALPRICE	NUMBER(15,5)		Not used since Dec 2003. Local price of lower 5 min
LOWER5MINLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 5 min local requirement
LOWER5MINPRICE	NUMBER(15,5)		Not used since Dec 2003. Regional price of lower 5 min
LOWER5MINREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 5 min total requirement
LOWER5MINSUPPLYPRICE	NUMBER(15,5)		Not used since Dec 2003. Supply price of lower 5 min
LOWER60SECDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Lower 60 sec MW dispatch
LOWER60SECIMPORT	NUMBER(15,5)		Not used since Dec 2003. Lower 60 sec MW imported
LOWER60SECLOCALDISPATCH	NUMBER(15,5)		Lower 60 sec local dispatch



LOWER60SECLocalPRICE	NUMBER(15,5)		Not used since Dec 2003. Local price of lower 60 sec
LOWER60SECLocalREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 60 sec local requirement
LOWER60SECPRICE	NUMBER(15,5)		Not used since Dec 2003. Regional price of lower 60 sec
LOWER60SECREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 60 sec total requirement
LOWER60SECSUPPLYPRICE	NUMBER(15,5)		Not used since Dec 2003. Supply price of lower 60 sec
LOWER6SECDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Lower 6 sec MW dispatch
LOWER6SECIMPORT	NUMBER(15,5)		Not used since Dec 2003. Lower 6 sec MW imported
LOWER6SECLocalDISPATCH	NUMBER(15,5)		Lower 6 sec local dispatch
LOWER6SECLocalPRICE	NUMBER(15,5)		Not used since Dec 2003. Local price of lower 6 sec
LOWER6SECLocalREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 6 sec local requirement
LOWER6SECPRICE	NUMBER(15,5)		Not used since Dec 2003. Regional price of lower 6 sec
LOWER6SECREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 6 sec total requirement
LOWER6SECSUPPLYPRICE	NUMBER(15,5)		Not used since Dec 2003. Supply price of lower 6 sec
RAISE5MINDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Raise 5 min MW dispatch

RAISE5MINIMPORT	NUMBER(15,5)		Not used since Dec 2003. Raise 5 min MW imported
RAISE5MINLOCALDISPATCH	NUMBER(15,5)		Raise 5 min local dispatch
RAISE5MINLOCALPRICE	NUMBER(15,5)		Not used since Dec 2003. Raise price of lower 5 min
RAISE5MINLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 5 min local requirement
RAISE5MINPRICE	NUMBER(15,5)		Not used since Dec 2003. Regional price of raise 5 min
RAISE5MINREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 5 min total requirement
RAISE5MINSUPPLYPRICE	NUMBER(15,5)		Not used since Dec 2003. Supply price of raise 5 min
RAISE60SECDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Raise 60 sec MW dispatch
RAISE60SECIMPORT	NUMBER(15,5)		Not used since Dec 2003. Raise 60 sec MW imported
RAISE60SECLOCALDISPATCH	NUMBER(15,5)		Raise 60 sec local dispatch
RAISE60SECLOCALPRICE	NUMBER(15,5)		Not used since Dec 2003. Local price of raise 60 sec
RAISE60SECLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 60 sec local requirement
RAISE60SECPRICE	NUMBER(15,5)		Not used since Dec 2003. Regional price of raise 60 sec
RAISE60SECREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 60 sec total requirement

RAISE60SECSUPPLYPRICE	NUMBER(15,5)		Not used since Dec 2003. Supply price of raise 60 sec
RAISE6SECDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Raise 6 sec MW dispatch
RAISE6SECIMPORT	NUMBER(15,5)		Not used since Dec 2003. Raise 6 sec MW imported
RAISE6SECLOCALDISPATCH	NUMBER(15,5)		Raise 6 sec local dispatch
RAISE6SECLOCALPRICE	NUMBER(15,5)		Not used since Dec 2003. Local price of raise 6 sec
RAISE6SECLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 6 sec local requirement
RAISE6SECPRICE	NUMBER(15,5)		Not used since Dec 2003. Regional price of raise 6 sec
RAISE6SECREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 6 sec total requirement
RAISE6SECSUPPLYPRICE	NUMBER(15,5)		Not used since Dec 2003. Supply price of raise 6 sec
AGGEGATEDISPATCHERROR	NUMBER(15,5)		Calculated dispatch error
AGGREGATEDISPATCHERROR	NUMBER(15,5)		Calculated dispatch error
LASTCHANGED	DATE		Last date and time record changed
INITIALSUPPLY	NUMBER(15,5)		Sum of initial generation and import for region
CLEAREDSUPPLY	NUMBER(15,5)		Sum of cleared generation and import for region
LOWERREGIMPORT	NUMBER(15,5)		Not used since Dec 2003. Lower

			Regulation MW imported
LOWERREGLOCALDISPATCH	NUMBER(15,5)		Lower Regulation local dispatch
LOWERREGLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Lower Regulation local requirement
LOWERREGREQ	NUMBER(15,5)		Not used since Dec 2003. Lower Regulation total requirement
RAISEREGIMPORT	NUMBER(15,5)		Not used since Dec 2003. Raise Regulation MW imported
RAISEREGLOCALDISPATCH	NUMBER(15,5)		Raise Regulation local dispatch
RAISEREGLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Raise Regulation local requirement
RAISEREGREQ	NUMBER(15,5)		Not used since Dec 2003. Raise Regulation total requirement
RAISE5MINLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 5 min local requirement
RAISEREGLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise Reg local requirement
RAISE60SECLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 60 sec local requirement
RAISE6SECLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 6 sec local requirement
LOWER5MINLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 5 min local requirement

LOWERREGLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower Reg local requirement
LOWER60SECLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 60 sec local requirement
LOWER6SECLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 6 sec local requirement
RAISE5MINVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 5 min requirement
RAISEREGVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise Reg requirement
RAISE60SECVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 60 seconds requirement
RAISE6SECVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 6 seconds requirement
LOWER5MINVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 5 min requirement
LOWERREGVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower Reg requirement
LOWER60SECVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 60 seconds requirement
LOWER6SECVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 6 seconds requirement
RAISE6SECACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted raise 6sec availability

RAISE60SECACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted raise 60sec availability
RAISE5MINACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted raise 5min availability
RAISEREGACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted raise reg availability
LOWER6SECACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted lower 6sec availability
LOWER60SECACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted lower 60sec availability
LOWER5MINACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted lower 5min availability
LOWERREGACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted lower reg availability
LORSURPLUS	NUMBER(16,6)		Not in use after 17 Feb 2006. Total short term generation capacity reserve used in assessing lack of reserve condition
LRCSURPLUS	NUMBER(16,6)		Not in use after 17 Feb 2006. Total short term generation capacity reserve above the stated low reserve condition requirement
TOTALINTERMITTENTGENERATION	NUMBER(15,5)		Allowance made for non-scheduled generation in the demand forecast (MW).
DEMAND_AND_NONSCHEMGEN	NUMBER(15,5)		Sum of Cleared Scheduled generation, imported generation (at the region boundary) and allowances made for non-scheduled generation (MW).
UIGF	NUMBER(15,5)		Regional aggregated

			Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW).
SEMISCHEDULE_CLEARED MW	NUMBER(15,5)		Regional aggregated Semi-Schedule generator Cleared MW
SEMISCHEDULE_COMPLIANCE MW	NUMBER(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where Semi-Dispatch cap is enforced
SS_SOLAR_UIGF	Number(15,5)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW) where the primary fuel source is solar
SS_WIND_UIGF	Number (15,5)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW) where the primary fuel source is wind
SS_SOLAR_CLEAREDMW	Number(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where the primary fuel source is solar
SS_WIND_CLEAREDMW	Number(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where the primary fuel source is wind
SS_SOLAR_COMPLIANCE MW	Number(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where Semi-Dispatch cap is enforced and the primary fuel source is solar
SS_WIND_COMPLIANCE MW	Number(15,5)		Regional aggregated Semi-Schedule generator Cleared MW

W			where Semi-Dispatch cap is enforced and the primary fuel source is wind
---	--	--	---



## 5 Package: IRAUCTION

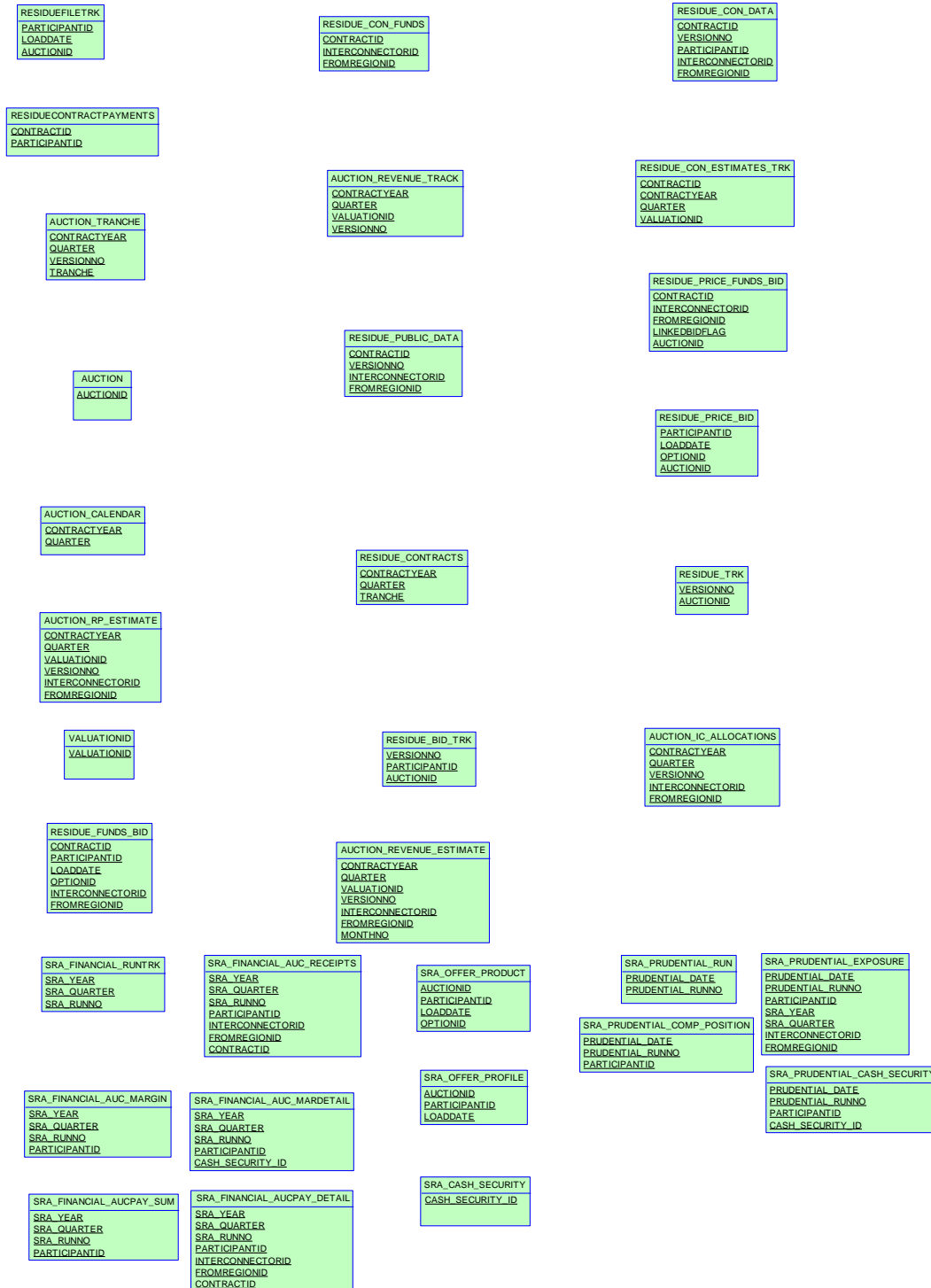
<i>Name</i>	IRAUCTION
<i>Comment</i>	Inter-regional Residue Auction data

### 5.1 List of tables

Name	Comment
AUCTION_IC_ALLOCATIONS	AUCTION_IC_ALLOCATIONS supports the Settlement Residue Auction by providing the basis for setting up contracts for individual tranches. AUCTION_IC_ALLOCATIONS shows the default definitions for the total number of units and proportion applicable to each directional interconnector for a specified auction quarter.
RESIDUE_CON_DATA	RESIDUE_CON_DATA supports the Settlement Residue Auction, by holding for each participant the confidential data from the auction. RESIDUE_CON_DATA joins to RESIDUE_PUBLIC_DATA and RESIDUE_TRK.
SRA_CASH_SECURITY	Records the Cash Security details provided by an SRA Auction Participant as collateral to cover their Trading Position in the SRA market
SRA_FINANCIAL_AUC_MARDET AIL	This table stores details of the margins returned to the participants.
SRA_FINANCIAL_AUC_MARGIN	Records the amount of Cash Security required to be held by an Auction Participant after settlement
SRA_FINANCIAL_AUC_RECEIPTS	Records details of the Cancelled Units and their value for the Auction Participant
SRA_FINANCIAL_AUCPAY_DETA IL	Records details of the SRA financial auction payment

SRA_FINANCIAL_AUCPAY_SUM	Records a summary of the Auction payment amount
SRA_FINANCIAL_RUNTRK	Records details of the settlement process for the cancellation and purchase of SRA Auction Units
SRA_OFFER_PRODUCT	Holds the Product details for each Offer File submitted by each SRA Auction Participant.
SRA_OFFER_PROFILE	Holds the data of an SRA Auction Participant Offer Submission.
SRA_PRUDENTIAL_CASH_SECURITY	Records the Cash Security details provided by an SRA Auction Participant as collateral to cover their Trading Position in the SRA market
SRA_PRUDENTIAL_COMP_POSITION	The prudential position of each company at the date and time of a specific prudential run
SRA_PRUDENTIAL_EXPOSURE	Records details of the Prudential Exposure of an SRA Auction Participant
SRA_PRUDENTIAL_RUN	Records the prudential run details for each prudential date

## 5.2 Diagram: Entities: IRAuction



## 5.3 Table: AUCTION\_IC\_ALLOCATIONS

<i>Name</i>	AUCTION_IC_ALLOCATIONS
<i>Comment</i>	AUCTION_IC_ALLOCATIONS supports the Settlement Residue Auction by providing the basis for setting up contracts for individual tranches. AUCTION_IC_ALLOCATIONS shows the default definitions for the total number of units and proportion applicable to each directional interconnector for a specified auction quarter.

### 5.3.1 Description

AUCTION\_IC\_ALLOCATIONS is public data, and is available to all participants.

#### Source

Updates are usually quarterly as auctions are held from Settlement Residue Auction team's SRIS interface.

#### Volume

AUCTION\_IC\_ALLOCATIONS contains a maximum of 100 records per year.

### 5.3.2 Notes

Name	Comment	Value
Visibility	Data in this table is:	Public

### 5.3.3 Primary Key Columns

Name

CONTRACTYEAR

FROMREGIONID

INTERCONNECTORID

QUARTER

VERSIONNO

### 5.3.4 Index Columns

Name

LASTCHANGED

### 5.3.5 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4,0)	X	SRA Contracted Year
QUARTER	NUMBER(1,0)	X	SRA Contracted Quarter
VERSIONNO	NUMBER(3,0)	X	Version of data for other key data - a higher version for same key data takes precedence
INTERCONNECTORID	VARCHAR2(10)	X	Contracted Interconnector Identifier
FROMREGIONID	VARCHAR2(10)	X	Nominated source region for Interconnector
MAXIMUMUNITS	NUMBER(5,0)		Number of units on the interconnector
PROPORTION	NUMBER(8,5)		Percentage of the total residue for each Unit
AUCTIONFEE	NUMBER(17,5)		Daily auction fee
CHANGEDATE	DATE		Authorisation date
CHANGEDBY	VARCHAR2(15)		Name of person authorising this data set
LASTCHANGED	DATE		Last date and time record changed
AUCTIONFEE_SALES	Number(18,8)		Fees for Cancelled Units.

## 5.4 Table: RESIDUE\_CON\_DATA

<i>Name</i>	RESIDUE_CON_DATA
<i>Comment</i>	RESIDUE_CON_DATA supports the Settlement Residue Auction, by holding for each participant the confidential data from the auction. RESIDUE_CON_DATA joins to RESIDUE_PUBLIC_DATA and RESIDUE_TRK.

### 5.4.1 Description

#### Source

RESIDUE\_CON\_DATA refreshes whenever a Settlement Residue Auction is run (i.e. quarterly).

RESIDUE\_CON\_DATA data is confidential to the relevant participant.

RESIDUE\_CON\_DATA excludes contracts and versions without a valid publication date (i.e invalid bids are ignored).

#### Volume

RESIDUE\_CON\_DATA shows a maximum of 6000 records per year.

### 5.4.2 Notes

Name	Comment	Value
Visibility	Data in this table is:	Private

### 5.4.3 Primary Key Columns

Name

CONTRACTID

FROMREGIONID

INTERCONNECTORID

PARTICIPANTID

VERSIONNO

## 5.4.4 Index Columns

Name

LASTCHANGED

## 5.4.5 Content

Name	Data Type	Mandatory	Comment
CONTRACTID	VARCHAR2(30)	X	SRA Contract unique identifier
VERSIONNO	NUMBER(3,0)	X	Contract run version
PARTICIPANTID	VARCHAR2(10)	X	Identifier of Contracted Participant
INTERCONNECTORID	VARCHAR2(10)	X	Identifier of Contracted Interconnector
FROMREGIONID	VARCHAR2(10)	X	Nominated source region for Interconnector
UNITSPURCHASED	NUMBER(17,5)		Units purchased on the directional interconnector (i.e. Contracted quantity)
LINKPAYMENT	NUMBER(17,5)		Payment due (i.e. total purchase price)
LASTCHANGED	DATE		Last date and time record changed
SECONDARY_UNITS_SOLD	Number(18,8)		The number of cancelled Units for all Auction Participants.

## 5.5 Table: SRA\_CASH\_SECURITY

*Name* SRA\_CASH\_SECURITY

*Comment* Records the Cash Security details provided by an SRA Auction Participant as collateral to cover their Trading Position in the SRA market

### 5.5.1 Primary Key Columns

Name

CASH\_SECURITY\_ID

### 5.5.2 Content

Name	Data Type	Mandatory	Comment
CASH_SECURITY_ID	VARCHAR2(36)	X	Unique identifier for the cash security.
PARTICIPANTID	VARCHAR2(10)		Unique identifier for the auction participant lodging the cash security.
PROVISION_DATE	DATE		Date AEMO received the Cash Security deposit
CASH_AMOUNT	NUMBER(18,8)		Dollar amount of the cash security.
INTEREST_ACCT_ID	VARCHAR2(20)		The interest account ID for calculating the interest payment
AUTHORISEDDATE	DATE		Authorised date
FINALRETURNDATE	DATE		Date the entire Cash Security amount was returned to the Auction Participant
CASH_SECURITY_RETURNED	NUMBER(18,8)		Returned Dollar amount of the Cash Security.



DELETIONDATE	DATE		Cash Security deleted date. For valid records, DeletionDate will be Null.
LASTCHANGED	DATE		The date and time this record was last modified

## 5.6 Table: SRA\_FINANCIAL\_AUC\_MARDETAIL

*Name* SRA\_FINANCIAL\_AUC\_MARDETAIL

*Comment* This table stores details of the margins returned to the participants.

### 5.6.1 Primary Key Columns

Name

CASH\_SECURITY\_ID

PARTICIPANTID

SRA\_QUARTER

SRA\_RUNNO

SRA\_YEAR

### 5.6.2 Content

Name	Data Type	Mandatory	Comment
SRA_YEAR	NUMBER(4)	X	Year of the Tranche
SRA_QUARTER	NUMBER(3)	X	Relevant Quarter of the Tranche
SRA_RUNNO	NUMBER(3)	X	SRA Run Number
PARTICIPANTID	VARCHAR2(10)	X	The participant identifier.
CASH_SECURITY_ID	VARCHAR2(36)	X	Unique identifier for the cash security.
RETURNED_AMOUNT	NUMBER(18,8)		The amount returned to the Auction participant from this cash security.

RETURNED_INTEREST	NUMBER(18,8)		The amount of interest applicable to the returned amount.
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## 5.7 Table: SRA\_FINANCIAL\_AUC\_MARGIN

<i>Name</i>	SRA_FINANCIAL_AUC_MARGIN
<i>Comment</i>	Records the amount of Cash Security required to be held by an Auction Participant after settlement

### 5.7.1 Primary Key Columns

Name
PARTICIPANTID
SRA_QUARTER
SRA_RUNNO
SRA_YEAR

### 5.7.2 Content

Name	Data Type	Mandatory	Comment
SRA_YEAR	NUMBER(4)	X	Year of the Tranche
SRA_QUARTER	NUMBER(3)	X	Relevant Quarter of the Tranche
SRA_RUNNO	NUMBER(3)	X	SRA Run Number
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier.
TOTAL_CASH_SECURITY	NUMBER(18,8)		Total cash security held by the participant.
REQUIRED_MARGIN	NUMBER(18,8)		The amount of trading cash security required to be held by the participant after settlement.
RETURNED_MARGIN	NUMBER(18,8)		The amount of cash security

			returned to the participant.
RETURNED_MARGIN_INTE REST	NUMBER(18,8)		The amount of interest applicable to returned cash security amounts.

## 5.8 Table: SRA\_FINANCIAL\_AUC\_RECEIPTS

*Name* SRA\_FINANCIAL\_AUC\_RECEIPTS

*Comment* Records details of the Cancelled Units and their value for the Auction Participant

### 5.8.1 Primary Key Columns

Name

CONTRACTID

FROMREGIONID

INTERCONNECTORID

PARTICIPANTID

SRA\_QUARTER

SRA\_RUNNO

SRA\_YEAR

### 5.8.2 Content

Name	Data Type	Mandatory	Comment
SRA_YEAR	NUMBER(4)	X	Year of the Tranche
SRA_QUARTER	NUMBER(3)	X	Relevant Quarter of the Tranche
SRA_RUNNO	NUMBER(3)	X	SRA Run Number
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier
INTERCONNECTORID	VARCHAR2(10)	X	The identifier for the Directional Interconnector
FROMREGIONID	VARCHAR2(10)	X	The source region identifier for the

	)		Directional Interconnector
CONTRACTID	VARCHAR2(10 )	X	The SRA contract identifier
UNITS_PURCHASED	NUMBER(18,8)		The number of units purchased
CLEARING_PRICE	NUMBER(18,8)		The clearing price of the auction
RECEIPT_AMOUNT	NUMBER(18,8)		The payment amount owed to AEMO
LASTCHANGED	DATE		The last changed date for the record
PROCEEDS_AMOUNT	NUMBER(18,8)		Dollar value of Cancelled Units in the Auction for the Auction Participant
UNITS_SOLD	NUMBER(18,8)		Units cancelled in the auction by the Auction participant.

## 5.9 Table: SRA\_FINANCIAL\_AUCPAY\_DETAIL

<i>Name</i>	SRA_FINANCIAL_AUCPAY_DETAIL
<i>Comment</i>	Records details of the SRA financial auction payment

### 5.9.1 Primary Key Columns

Name

CONTRACTID

FROMREGIONID

INTERCONNECTORID

PARTICIPANTID

SRA\_QUARTER

SRA\_RUNNO

SRA\_YEAR

### 5.9.2 Content

Name	Data Type	Mandatory	Comment
SRA_YEAR	NUMBER(4)	X	Year of the Tranche
SRA_QUARTER	NUMBER(3)	X	Relevant Quarter of the Tranche
SRA_RUNNO	NUMBER(3)	X	SRA Run Number
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier
INTERCONNECTORID	VARCHAR2(10)	X	The identifier for the Directional Interconnector
FROMREGIONID	VARCHAR2(10)	X	The source Region identifier for



	)		the Directional Interconnector
CONTRACTID	VARCHAR2(10 )	X	The SRA contract identifier
MAXIMUM_UNITS	NUMBER(18,8)		The Maximum Units Available for purchase in the Auction
UNITS_SOLD	NUMBER(18,8)		The total number of Allocated Units in the Auction, including Cancelled Units by an Auction Participant
SHORTFALL_UNITS	NUMBER(18,8)		The total number of units unpaid for in the auction
RESERVE_PRICE	NUMBER(18,8)		The reserve price of the auction
CLEARING_PRICE	NUMBER(18,8)		The Market Clearing Price of the Auction
PAYMENT_AMOUNT	NUMBER(18,8)		The payment amount owed by AEMO before shortfall
SHORTFALL_AMOUNT	NUMBER(18,8)		The shortfall amount
ALLOCATION	NUMBER(18,8)		The percentage of the auction proceeds allocated to the TNSP on the directional link
NET_PAYMENT_AMOUNT	NUMBER(18,8)		The payment amount owed by AEMO, including shortfall
LASTCHANGED	DATE		The date and time this record was last modified

## 5.10 Table: SRA\_FINANCIAL\_AUCPAY\_SUM

<i>Name</i>	SRA_FINANCIAL_AUCPAY_SUM
<i>Comment</i>	Records a summary of the Auction payment amount

### 5.10.1 Primary Key Columns

Name

PARTICIPANTID

SRA\_QUARTER

SRA\_RUNNO

SRA\_YEAR

### 5.10.2 Content

Name	Data Type	Mandatory	Comment
SRA_YEAR	NUMBER(4)	X	Year of the Tranche
SRA_QUARTER	NUMBER(3)	X	Relevant Quarter of the Tranche
SRA_RUNNO	NUMBER(3)	X	SRA Run Number
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier
GROSS_PROCEEDS_AMOUNT	NUMBER(18,8)		The total auction proceeds allocated to the TNSP
TOTAL_GROSS_PROCEEDS_AMOUNT	NUMBER(18,8)		The total auction proceeds allocated to all TNSPs in the SRA quarter
SHORTFALL_AMOUNT	NUMBER(18,8)		The shortfall amount for in the SRA Quarter for the TNSP

TOTAL_SHORTFALL_AMOUNT	NUMBER(18,8)		The total shortfall amount for in the SRA Quarter for all TNSPs
NET_PAYMENT_AMOUNT	NUMBER(18,8)		The net payment amount owed by AEMO to the TNSP
LASTCHANGED	DATE		The date and time this record was last modified

## 5.11 Table: SRA\_FINANCIAL\_RUNTRK

<i>Name</i>	SRA_FINANCIAL_RUNTRK
<i>Comment</i>	Records details of the settlement process for the cancellation and purchase of SRA Auction Units

### 5.11.1 Primary Key Columns

Name

SRA\_QUARTER

SRA\_RUNNO

SRA\_YEAR

### 5.11.2 Content

Name	Data Type	Mandatory	Comment
SRA_YEAR	NUMBER(4)	X	Year of the Tranche
SRA_QUARTER	NUMBER(3)	X	Relevant Quarter of the Tranche
SRA_RUNNO	NUMBER(3)	X	SRA Run Number
RUNTYPE	VARCHAR2(20)		The type of SRA run
RUNDATE	DATE		The date and time the run was triggered
POSTEDDATE	DATE		The date/time the run was posted
INTEREST_VERSIONNO	NUMBER(3)		Version number of the interest component used in the payments run
MAKEUP_VERSIONNO	NUMBER(3)		Version number of the makeup component used in the makeup

			run
LASTCHANGED	DATE		The date and time this record was last modified

## 5.12 Table: SRA\_OFFER\_PRODUCT

<i>Name</i>	SRA_OFFER_PRODUCT
<i>Comment</i>	Holds the Product details for each Offer File submitted by each SRA Auction Participant.

### 5.12.1 Primary Key Columns

Name  
 AUCTIONID  
 LOADDATE  
 OPTIONID  
 PARTICIPANTID

### 5.12.2 Content

Name	Data Type	Mandatory	Comment
AUCTIONID	VARCHAR2(30)	X	Unique ID for each Auction date
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier
LOADDATE	DATE	X	The date and time the system loaded the SRA Offer File
OPTIONID	NUMBER(4)	X	Unique Product identifier (1 - 2000)
INTERCONNECTORID	VARCHAR2(10)		Unique Directional Interconnector identifier
FROMREGIONID	VARCHAR2(10)		The source Region identifier for the Directional Interconnector

OFFER_QUANTITY	NUMBER(5)		The Offer quantity for this Product
OFFER_PRICE	NUMBER(18,8)		The Offer price for this Product
TRANCHEID	VARCHAR2(30 )		Tranche identifier
LASTCHANGED	DATE		The date and time this record was last modified

## 5.13 Table: SRA\_OFFER\_PROFILE

*Name* SRA\_OFFER\_PROFILE

*Comment* Holds the data of an SRA Auction Participant Offer Submission.

### 5.13.1 Primary Key Columns

Name

AUCTIONID

LOADDATE

PARTICIPANTID

### 5.13.2 Content

Name	Data Type	Mandatory	Comment
AUCTIONID	VARCHAR2(30)	X	Unique ID for each Auction date
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier
LOADDATE	DATE	X	The date and time the system loaded the SRA Offer File
FILENAME	VARCHAR2(40)		SRA Offer File name
ACKFILENAME	VARCHAR2(40)		SRA acknowledgment file name
TRANSACTIONID	VARCHAR2(100)		Transaction ID used for tracking
LASTCHANGED	DATE		The date and time this record was last modified





## 5.14 Table: SRA\_PRUDENTIAL\_CASH\_SECURITY

<i>Name</i>	SRA_PRUDENTIAL_CASH_SECURITY
<i>Comment</i>	Records the Cash Security details provided by an SRA Auction Participant as collateral to cover their Trading Position in the SRA market

### 5.14.1 Primary Key Columns

Name

CASH\_SECURITY\_ID

PARTICIPANTID

PRUDENTIAL\_DATE

PRUDENTIAL\_RUNNO

### 5.14.2 Content

Name	Data Type	Mandatory	Comment
PRUDENTIAL_DATE	DATE	X	The prudential date of the run.
PRUDENTIAL_RUNNO	NUMBER(8)	X	The run number for the prudential date
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier for the Auction Participant lodging the Cash Security
CASH_SECURITY_ID	VARCHAR2(36)	X	Unique identifier for the cash security.
CASH_SECURITY_AMOUNT	NUMBER(18,8)		Remaining Cash Security deposit available

## 5.15 Table: SRA\_PRUDENTIAL\_COMP\_POSITION

<i>Name</i>	SRA_PRUDENTIAL_COMP_POSITION
<i>Comment</i>	The prudential position of each company at the date and time of a specific prudential run

### 5.15.1 Primary Key Columns

Name
PARTICIPANTID
PRUDENTIAL_DATE
PRUDENTIAL_RUNNO

### 5.15.2 Content

Name	Data Type	Mandatory	Comment
PRUDENTIAL_DATE	DATE	X	The prudential date of the run.
PRUDENTIAL_RUNNO	NUMBER(8)	X	The run number for the prudential date
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier
TRADING_LIMIT	NUMBER(18,8)		The Trading Limit of the company at the time of the prudential run
PRUDENTIAL_EXPOSURE_AMOUNT	NUMBER(18,8)		Current Prudential Exposure of the Auction Participant including Offers
TRADING_MARGIN	NUMBER(18,8)		The amount of Trading Margin available to the Auction Participant to trade (including Offered Units and Cancelled Units). Equal to

			TRADING_LIMIT â€" PRUDENTIAL_EXPOSURE_AMO UNT.
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## 5.16 Table: SRA\_PRUDENTIAL\_EXPOSURE

<i>Name</i>	SRA_PRUDENTIAL_EXPOSURE
<i>Comment</i>	Records details of the Prudential Exposure of an SRA Auction Participant

### 5.16.1 Primary Key Columns

Name

FROMREGIONID

INTERCONNECTORID

PARTICIPANTID

PRUDENTIAL\_DATE

PRUDENTIAL\_RUNNO

SRA\_QUARTER

SRA\_YEAR

### 5.16.2 Content

Name	Data Type	Mandatory	Comment
PRUDENTIAL_DATE	DATE	X	The prudential date of the run.
PRUDENTIAL_RUNNO	NUMBER(8)	X	The run number for the prudential date.
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier
SRA_YEAR	NUMBER(4)	X	AEMO Contract Year number starting the week beginning 1 January

SRA_QUARTER	NUMBER(3)	X	Contract Relevant Quarter
INTERCONNECTORID	VARCHAR2(10) )	X	The identifier for the Directional Interconnector
FROMREGIONID	VARCHAR2(10) )	X	The source Region identifier for the Directional Interconnector
MAX_TRANCHE	NUMBER(2)		The largest Tranche where the Unit was either sold or offered. Used in the calculation of the Average Purchase Price for the Trading Position of the Product. The most recent Tranche where Units were cancelled or offered (if the Offer is below the Average Purchase Price)
AUCTIONID	VARCHAR2(30) )		Unique identifier for the Auction having the Offer. Has a null value when no Offer is made for the Relevant Quarter
OFFER_SUBMISSIONTIME	DATE		Timestamp of the Offer File submitted by the Auction Participant. Has a null value when no Offer is made for the Relevant Quarter
AVERAGE_PURCHASE_PRICE	NUMBER(18,8)		Calculated Average Purchase Price for the Product
AVERAGE_CANCELLATION_PRICE	NUMBER(18,8)		Calculated average cancellation price for product.
CANCELLATION_VOLUME	NUMBER(18,8)		Calculated cancellation volume for product.
TRADING_POSITION	NUMBER(18,8)		Calculated trading position for product.

## 5.17 Table: SRA\_PRUDENTIAL\_RUN

*Name* SRA\_PRUDENTIAL\_RUN

*Comment* Records the prudential run details for each prudential date

### 5.17.1 Primary Key Columns

Name

PRUDENTIAL\_DATE

PRUDENTIAL\_RUNNO

### 5.17.2 Content

Name	Data Type	Mandatory	Comment
PRUDENTIAL_DATE	DATE	X	The prudential date of the run.
PRUDENTIAL_RUNNO	NUMBER(8)	X	The prudential run number for the run

## 6 Package: P5MIN

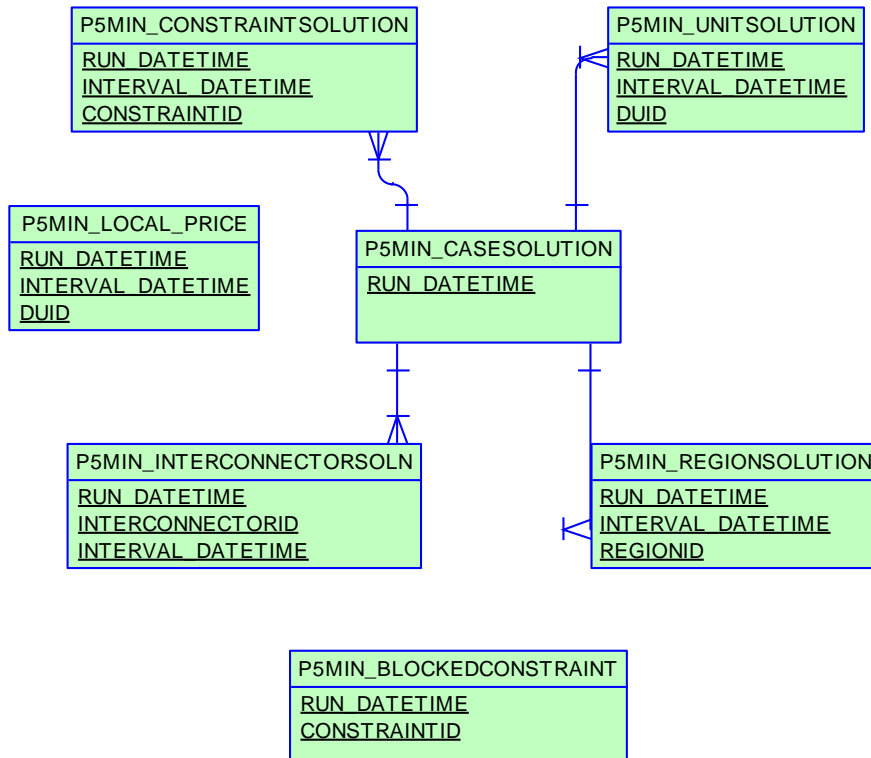
<i>Name</i>	P5MIN
<i>Comment</i>	Results from a published Five-Minute Predispatch Run

### 6.1 List of tables

Name	Comment
P5MIN_REGIONSOLUTION	<p>The five-minute predispach (P5Min) is a MMS system providing projected dispatch for 12 Dispatch cycles (one hour). The 5-minute Predispach cycle runs every 5-minutes to produce a dispatch and pricing schedule to a 5-minute resolution covering the next hour, a total of twelve periods.</p> <p>P5MIN_REGIONSOLUTION shows the results of the regional capacity, maximum surplus reserve and maximum spare capacity evaluations for each period of the study.</p>



## 6.2 Diagram: Entities: P5MIN



## 6.3 Table: P5MIN\_REGIONSOLUTION

<i>Name</i>	P5MIN_REGIONSOLUTION
<i>Comment</i>	<p>The five-minute predispach (P5Min) is a MMS system providing projected dispatch for 12 Dispatch cycles (one hour). The 5-minute Predispach cycle runs every 5-minutes to produce a dispatch and pricing schedule to a 5-minute resolution covering the next hour, a total of twelve periods.</p> <p>P5MIN_REGIONSOLUTION shows the results of the regional capacity, maximum surplus reserve and maximum spare capacity evaluations for each period of the study.</p>

### 6.3.1 Description

P5MIN\_REGIONSOLUTION is public data, so is available to all participants.

#### Source

P5MIN\_REGIONSOLUTION updates every 5 minutes.

#### Volume

Rows per day: 1440

### 6.3.2 Notes

Name	Comment	Value
Visibility	Data in this table is:	Public

### 6.3.3 Primary Key Columns

Name

INTERVAL\_DATETIME

REGIONID

RUN\_DATETIME

### 6.3.4 Index Columns

Name

LASTCHANGED

### 6.3.5 Content

Name	Data Type	Mandatory	Comment
RUN_DATETIME	DATE	X	Unique Timestamp Identifier for this study
INTERVAL_DATETIME	DATE	X	The unique identifier for the interval within this study
REGIONID	VARCHAR2(10)	X	Region Identifier
RRP	NUMBER(15,5)		Region Reference Price (Energy)
ROP	NUMBER(15,5)		Region Override Price (Energy)
EXCESSGENERATION	NUMBER(15,5)		Total Energy Imbalance (MW)
RAISE6SECRRP	NUMBER(15,5)		Region Reference Price (Raise6Sec)
RAISE6SECROP	NUMBER(15,5)		Original regional price (Raise6Sec)
RAISE60SECRRP	NUMBER(15,5)		Region Reference Price (Raise60Sec)
RAISE60SECROP	NUMBER(15,5)		Original regional price (Raise60Sec)
RAISE5MINRRP	NUMBER(15,5)		Region Reference Price (Raise5Min)
RAISE5MINROP	NUMBER(15,5)		Original regional price (Raise5Min)
RAISEREGRRP	NUMBER(15,5)		Region Reference Price (RaiseReg)
RAISEREGROP	NUMBER(15,5)		Original regional price (RaiseReg)

LOWER6SECRRP	NUMBER(15,5)		Region Reference Price (Lower6Sec)
LOWER6SECROP	NUMBER(15,5)		Original regional price (Lower6Sec)
LOWER60SECRRP	NUMBER(15,5)		Region Reference Price (Lower60Sec)
LOWER60SECROP	NUMBER(15,5)		Original regional price (Lower60Sec)
LOWER5MINRRP	NUMBER(15,5)		Region Reference Price (Lower5Min)
LOWER5MINROP	NUMBER(15,5)		Original regional price (Lower5Min)
LOWERREGRRP	NUMBER(15,5)		Region Reference Price (LowerReg)
LOWERREGROP	NUMBER(15,5)		Original regional price (LowerReg)
TOTALDEMAND	NUMBER(15,5)		Regional Demand - NB NOT net of Interconnector flows or Loads
AVAILABLEGENERATION	NUMBER(15,5)		Regional Available generation
AVAILABLELOAD	NUMBER(15,5)		Regional Available Load
DEMANDFORECAST	NUMBER(15,5)		Predicted change in regional demand for this interval
DISPATCHABLEGENERATION	NUMBER(15,5)		Regional Generation Dispatched
DISPATCHABLELOAD	NUMBER(15,5)		Regional Load Dispatched
NETINTERCHANGE	NUMBER(15,5)		Net interconnector Flows
LOWER5MINDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Lower 5 min MW dispatch
LOWER5MINIMPORT	NUMBER(15,5)		Not used since Dec 2003. Lower 5 min MW imported

LOWER5MINLOCALDISPATCH	NUMBER(15,5)		Lower 5 min local dispatch
LOWER5MINLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 5 min local requirement
LOWER5MINREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 5 min total requirement
LOWER60SECDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Lower 60 sec MW dispatch
LOWER60SECIMPORT	NUMBER(15,5)		Not used since Dec 2003. Lower 60 sec MW imported
LOWER60SECLOCALDISPATCH	NUMBER(15,5)		Lower 60 sec local dispatch
LOWER60SECLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 60 sec local requirement
LOWER60SECREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 60 sec total requirement
LOWER6SECDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Lower 6 sec MW dispatch
LOWER6SECIMPORT	NUMBER(15,5)		Not used since Dec 2003. Lower 6 sec MW imported
LOWER6SECLOCALDISPATCH	NUMBER(15,5)		Lower 6 sec local dispatch
LOWER6SECLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 6 sec local requirement
LOWER6SECREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 6 sec total requirement
RAISE5MINDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Total Raise 5 min MW dispatch

RAISE5MINIMPORT	NUMBER(15,5)		Not used since Dec 2003. Raise 5 min MW imported
RAISE5MINLOCALDISPATCH	NUMBER(15,5)		Raise 5 min local dispatch
RAISE5MINLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 5 min local requirement
RAISE5MINREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 5 min total requirement
RAISE60SECDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Raise 60 sec MW dispatch
RAISE60SECIMPORT	NUMBER(15,5)		Not used since Dec 2003. Raise 60 sec MW imported
RAISE60SECLOCALDISPATCH	NUMBER(15,5)		Raise 50 sec local dispatch
RAISE60SECLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 60 sec local requirement
RAISE60SECREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 60 sec total requirement
RAISE6SECDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Raise 6 sec MW dispatch
RAISE6SECIMPORT	NUMBER(15,5)		Not used since Dec 2003. Raise 6 sec MW imported
RAISE6SECLOCALDISPATCH	NUMBER(15,5)		Raise 6 sec local dispatch
RAISE6SECLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 6 sec local requirement
RAISE6SECREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 6 sec total requirement

AGGREGATEDISPATCHERROR	NUMBER(15,5)		Aggregate dispatch error applied
INITIALSUPPLY	NUMBER(15,5)		Sum of initial generation and import for region
CLEAREDSUPPLY	NUMBER(15,5)		Sum of cleared generation and import for region
LOWERREGIMPORT	NUMBER(15,5)		Not used since Dec 2003. Lower Regulation MW imported
LOWERREGDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Total Lower Regulation dispatch
LOWERREGLOCALDISPATCH	NUMBER(15,5)		Lower Regulation local dispatch
LOWERREGLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Lower Regulation local requirement
LOWERREGREQ	NUMBER(15,5)		Not used since Dec 2003. Lower Regulation total requirement
RAISEREGIMPORT	NUMBER(15,5)		Not used since Dec 2003. Raise Regulation MW imported
RAISEREGDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Total Raise Regulation dispatch
RAISEREGLOCALDISPATCH	NUMBER(15,5)		Raise Regulation local dispatch
RAISEREGLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Raise Regulation local requirement
RAISEREGREQ	NUMBER(15,5)		Not used since Dec 2003. Raise Regulation total requirement
RAISE5MINLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 5 min local requirement

RAISEREGLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise Reg local requirement
RAISE60SECLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 60 sec local requirement
RAISE6SECLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 6 sec local requirement
LOWER5MINLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 5 min local requirement
LOWERREGLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower Reg local requirement
LOWER60SECLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 60 sec local requirement
LOWER6SECLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 6 sec local requirement
RAISE5MINVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 5 min requirement
RAISEREGVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise Reg requirement
RAISE60SECVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 60 seconds requirement
RAISE6SECVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 6 seconds requirement



LOWER5MINVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 5 min requirement
LOWERREGVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower Reg requirement
LOWER60SECVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 60 seconds requirement
LOWER6SECVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 6 seconds requirement
LASTCHANGED	DATE		Last date and time record changed
TOTALINTERMITTENTGENERATION	NUMBER(15,5)		Allowance made for non-scheduled generation in the demand forecast (MW).
DEMAND_AND_NONSCHE DGEN	NUMBER(15,5)		Sum of Cleared Scheduled generation, imported generation (at the region boundary) and allowances made for non-scheduled generation (MW).
UIGF	NUMBER(15,5)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW).
SEMISCHEDULE_CLEARED MW	NUMBER(15,5)		Regional aggregated Semi-Schedule generator Cleared MW
SEMISCHEDULE_COMPLIANCE MW	NUMBER(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where Semi-Dispatch cap is enforced
INTERVENTION	Number(2,0)		Flag to indicate if this result set was sourced from the pricing run (INTERVENTION=0) or the physical

			run (INTERVENTION=1). In the event there is not intervention in the market, both pricing and physical runs correspond to INTERVENTION=0
SS_SOLAR_UIGF	Number(15,5)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW) where the primary fuel source is solar
SS_WIND_UIGF	Number (15,5)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW) where the primary fuel source is wind
SS_SOLAR_CLEAREDMW	Number(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where the primary fuel source is solar
SS_WIND_CLEAREDMW	Number(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where the primary fuel source is wind
SS_SOLAR_COMPLIANCEMW	Number(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where Semi-Dispatch cap is enforced and the primary fuel source is solar
SS_WIND_COMPLIANCEMW	Number(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where Semi-Dispatch cap is enforced and the primary fuel source is wind

## 7 Package: PRE\_DISPATCH

<i>Name</i>	PRE_DISPATCH
<i>Comment</i>	Results from a published Predispatch Run

### Storage options

There are 2 ways to define the Pre-dispatch table primary keys (PKs) to define which data is loaded to the database and which data is retained:

#### Option 1 (default)

Overwrite older records when they are succeeded by later versions for the same entity and period. This is the Data Model default and results in the consumption of far less storage. Data Model updates issued by AEMO target this configuration so participants implementing option 2a or 2b must maintain their changes when AEMO releases a new Data Model version.

PredispatchLoad: DateTime, DUID

PredispatchInterconnectorRes: DateTime, InterconnectorID,

PredispatchPrice: DateTime, RegionID

PredispatchPriceSensitivities: DateTime, RegionID

PredispatchInterSensitivities: InterconnectorID, DateTime

PredispatchRegionsum: DateTime, RegionID

#### Option 2a

Retain only the Pricing records for tables relating to Price data and Physical records for tables relating to Physical data (e.g. targets). Approximately 50 times more storage volumes than option 1.

PredispatchLoad: PredispatchSeqNo, DateTime, DUID

PredispatchInterconnectorRes: PredispatchSeqNo, DateTime, InterconnectorID,

PredispatchPrice: PredispatchSeqNo, DateTime, RegionID

PredispatchPriceSensitivities: PredispatchSeqNo, DateTime, RegionID

PredispatchInterSensitivities: PredispatchSeqNo, DateTime, InterconnectorID

PredispatchRegionsum: PredispatchSeqNo, DateTime, RegionID

#### Option 2b

Retain both Physical and Pricing data for Intervention runs. If Intervention

cases are stored in entirety, you must select the data carefully. The logic is the same as for Dispatch, i.e. Intervention Pricing is always where Intervention = 0 and Physical data is where Intervention = PredispatchCaseSolution.Intervention for the same PredispatchSeqNo.

Doubles the storage of option 2a but ONLY for Intervened cases.

PredispatchLoad: PredispatchSeqNo, Intervention, DateTime, DUID

PredispatchInterconnectorRes: PredispatchSeqNo, Intervention, DateTime, InterconnectorID,

PredispatchPrice: PredispatchSeqNo, Intervention, DateTime, RegionID

PredispatchPriceSensitivities: PredispatchSeqNo, Intervention, DateTime, RegionID

PredispatchInterSensitivities: PredispatchSeqNo, Intervention, DateTime, InterconnectorID

PredispatchRegionsum: PredispatchSeqNo, Intervention, DateTime, RegionID

#### Notes:

The data in the PredispatchIS file is always ordered so the pdrLoader writes the relevant data first and discards the subsequent irrelevant data, or writes the subsequent data, depending on how the PKs are defined.

You may order the PKs in a different order, depending on your local requirements. Any decision to change the PK column composition or order must consider the functional and performance impacts to existing applications or queries.

The pdrLoader caches PK definitions for performance reasons so any change to the PKs requires a restart of the application.

The TRANSACTION\_TYPE default in the PDR\_REPORT\_RECORDS management tables for PREDISPATCH\* tables is UPDATE-INSERT. You can modify this to INSERT for Option 2b, as the attempt to first perform an update becomes redundant. This can improve load performance.

## 7.1 List of tables

Name	Comment
PREDISPATCHREGIONSUM	PREDISPATCHREGIONSUM sets out the overall regional Pre-Dispatch results for base case details (excluding

	price).
--	---------

## 7.2 Diagram: Entities: Predispatch

PREDISPATCCASESOLUTION
<u>PREDISPATCHEQNO</u>
<u>RUNNO</u>

PREDISPATCINTERCONNECTORRES
<u>INTERCONNECTORID</u>
<u>DATETIME</u>

PREDISPATCLOAD
<u>DUID</u>
<u>DATETIME</u>

PREDISPATCCONSTRAINT
<u>CONSTRAINTID</u>
<u>DATETIME</u>

PREDISPATCPRICESENSITIVITIES
<u>REGIONID</u>
<u>DATETIME</u>

PREDISPATCREGIONSUM
<u>REGIONID</u>
<u>DATETIME</u>

PREDISPATCofferTRK
<u>PREDISPATCHEQNO</u>
<u>DUID</u>
<u>BIDTYPE</u>
<u>PERIODID</u>

PREDISPATCPRICE
<u>REGIONID</u>
<u>DATETIME</u>

PREDISPATC_MNSPBIDTRK
<u>PREDISPATCHEQNO</u>
<u>LINKID</u>
<u>PERIODID</u>

PREDISPATCSCENARIODEMAND
<u>EFFECTIVEDATE</u>
<u>VERSIONNO</u>
<u>SCENARIO</u>
<u>REGIONID</u>

PREDISPATC_FCAS_REQ
<u>GENCONID</u>
<u>REGIONID</u>
<u>BIDTYPE</u>
<u>DATETIME</u>

PREDISPATCINTERSENSITIVITIES
<u>INTERCONNECTORID</u>
<u>DATETIME</u>

PREDISPATCSCENARIODEMANDTRK
<u>EFFECTIVEDATE</u>
<u>VERSIONNO</u>

PREDISPATCBLOCKEDCONSTRAINT
<u>PREDISPATCHEQNO</u>
<u>CONSTRAINTID</u>

PREDISPATC_LOCAL_PRICE
<u>DATETIME</u>
<u>DUID</u>

## 7.3 Table: PREDISPATCHREGIONSUM

<i>Name</i>	PREDISPATCHREGIONSUM
<i>Comment</i>	PREDISPATCHREGIONSUM sets out the overall regional Pre-Dispatch results for base case details (excluding price).

### 7.3.1 Description

PREDISPATCHREGIONSUM includes the forecast demand (total demand) and Frequency Control Ancillary Services (FCAS) requirements (specifically, for the Raise Regulation and Lower Regulation Ancillary Services plus improvements to demand calculations). PREDISPATCHREGIONSUM updates each half-hour with the latest Pre-Dispatch details for the remaining period.

Regional demand can be calculated as total demand plus dispatchable load (i.e. Regional demand = Total Demand + Dispatchable Load)

#### Source

PREDISPATCHREGIONSUM updates every thirty minutes.

#### Note

\*\*\* "Actual FCAS availability" is determined in a post-processing step based on the energy target (TotalCleared) and bid FCAS trapezium for that interval. However, if the unit is outside the bid FCAS trapezium at the start of the interval (InitialMW), the "Actual FCAS availability" is set to zero. For regulation services, the trapezium is the most restrictive of the bid/SCADA trapezium values.

From 16 February 2006, the old reserve values are no longer populated (i.e. are null), being LORSurplus and LRCSurplus. For more details on the changes to Reporting of Reserve Condition Data, refer to AEMO Communication 2042. For the best available indicator of reserve condition in each of the regions of the NEM for each trading interval, refer to the latest run of the Pre-Dispatch PASA (see table PDPASA\_REGIONSOLUTION).

### 7.3.2 Notes

Name	Comment	Value
Visibility	Data in this table is:	Public

### 7.3.3 Primary Key Columns

Name  
DATETIME  
REGIONID

### 7.3.4 Index Columns

Name

LASTCHANGED

### 7.3.5 Index Columns

Name

PREDISPATCHSEQNO

### 7.3.6 Content

Name	Data Type	Mandatory	Comment
PREDISPATCHSEQNO	VARCHAR2(20)		Unique identifier of predispatch run in the form YYYYMMDDPP with 01 at 04:30
RUNNO	NUMBER(3,0)		LP Solver Pre-Dispatch run no, typically 1. It increments if the case is re-run.
REGIONID	VARCHAR2(10)	X	Unique region identifier
PERIODID	VARCHAR2(20)		PERIODID is just a period count, starting from 1 for each Pre-Dispatch run. Use DATETIME to determine half hour period.
INTERVENTION	NUMBER(2,0)		Flag to indicate if this result set was sourced from the pricing run (INTERVENTION=0) or the physical run (INTERVENTION=1). In the event that there is not intervention in the market, both pricing and



			physical runs correspond to INTERVENTION=0
TOTALDEMAND	NUMBER(15,5)		Total demand in MW for period (less normally on loads)
AVAILABLEGENERATION	NUMBER(15,5)		Aggregate generation bid available in region
AVAILABLELOAD	NUMBER(15,5)		Aggregate load bid available in region
DEMANDFORECAST	NUMBER(15,5)		Delta MW value only
DISPATCHABLEGENERATION	NUMBER(15,5)		Generation dispatched in period
DISPATCHABLELOAD	NUMBER(15,5)		Load dispatched in period
NETINTERCHANGE	NUMBER(15,5)		Net interconnector flow from the regional reference node
EXCESSGENERATION	NUMBER(15,5)		Excess generation in period / Deficit generation if VOLL
LOWER5MINDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Lower 5 min MW dispatch
LOWER5MINIMPORT	NUMBER(15,5)		Not used since Dec 2003. Lower 5 min MW imported
LOWER5MINLOCALDISPATCH	NUMBER(15,5)		Lower 5 min local dispatch
LOWER5MINLOCALPRICE	NUMBER(15,5)		Not used since Dec 2003. Local price of lower 5 min
LOWER5MINLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 5 min local requirement
LOWER5MINPRICE	NUMBER(15,5)		Not used since Dec 2003. Regional price of lower 5 min

LOWER5MINREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 5 min total requirement
LOWER5MINSUPPLYPRICE	NUMBER(15,5)		Not used since Dec 2003. Supply price of lower 5 min
LOWER60SECDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Lower 60 sec MW dispatch
LOWER60SECIMPORT	NUMBER(15,5)		Not used since Dec 2003. Lower 60 sec MW imported
LOWER60SECLOCALDISPATCH	NUMBER(15,5)		Lower 60 sec local dispatch
LOWER60SECLOCALPRICE	NUMBER(15,5)		Not used since Dec 2003. Local price of lower 60 sec
LOWER60SECLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 60 sec local requirement
LOWER60SECPRICE	NUMBER(15,5)		Not used since Dec 2003. Regional price of lower 60 sec
LOWER60SECREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 60 sec total requirement
LOWER60SECSUPPLYPRICE	NUMBER(15,5)		Not used since Dec 2003. Supply price of lower 60 sec
LOWER6SECDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Lower 6 sec MW dispatch
LOWER6SECIMPORT	NUMBER(15,5)		Not used since Dec 2003. Lower 6 sec MW imported
LOWER6SECLOCALDISPATCH	NUMBER(15,5)		Lower 6 sec local dispatch
LOWER6SECLOCALPRICE	NUMBER(15,5)		Not used since Dec 2003. Local price of lower 6 sec

LOWER6SECLocalREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 6 sec local requirement
LOWER6SECPRICE	NUMBER(15,5)		Not used since Dec 2003. Regional price of lower 6 sec
LOWER6SECREQ	NUMBER(15,5)		Not used since Dec 2003. Lower 6 sec total requirement
LOWER6SECSUPPLYPRICE	NUMBER(15,5)		Not used since Dec 2003. Supply price of lower 6 sec
RAISE5MINDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Raise 5 min MW dispatch
RAISE5MINIMPORT	NUMBER(15,5)		Not used since Dec 2003. Raise 5 min MW imported
RAISE5MINLOCALDISPATCH	NUMBER(15,5)		Raise 5 min local dispatch
RAISE5MINLOCALPRICE	NUMBER(15,5)		Not used since Dec 2003. Local price of raise 5 min
RAISE5MINLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 5 min local requirement
RAISE5MINPRICE	NUMBER(15,5)		Not used since Dec 2003. Regional price of raise 5 min
RAISE5MINREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 5 min total requirement
RAISE5MINSUPPLYPRICE	NUMBER(15,5)		Not used since Dec 2003. Supply price of raise 5 min
RAISE60SECDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Raise 60 sec MW dispatch
RAISE60SECIMPORT	NUMBER(15,5)		Not used since Dec 2003. Raise 60 sec MW imported

RAISE60SECLOCALDISPATCH	NUMBER(15,5)		Raise 60 sec local dispatch
RAISE60SECLOCALPRICE	NUMBER(15,5)		Not used since Dec 2003. Local price of raise 60 sec
RAISE60SECLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 60 sec local requirement
RAISE60SECPRICE	NUMBER(15,5)		Not used since Dec 2003. Regional price of raise 60 sec
RAISE60SECREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 60 sec total requirement
RAISE60SECSUPPLYPRICE	NUMBER(15,5)		Not used since Dec 2003. Supply price of raise 60 sec
RAISE6SECDISPATCH	NUMBER(15,5)		Not used since Dec 2003. Raise 6 sec MW dispatch
RAISE6SECIMPORT	NUMBER(15,5)		Not used since Dec 2003. Raise 6 sec MW imported
RAISE6SECLOCALDISPATCH	NUMBER(15,5)		Raise 6 sec local dispatch
RAISE6SECLOCALPRICE	NUMBER(15,5)		Not used since Dec 2003. Local price of raise 6 sec
RAISE6SECLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 6 sec local requirement
RAISE6SECPRICE	NUMBER(15,5)		Not used since Dec 2003. Regional price of raise 6 sec
RAISE6SECREQ	NUMBER(15,5)		Not used since Dec 2003. Raise 6 sec total requirement
RAISE6SECSUPPLYPRICE	NUMBER(15,5)		Not used since Dec 2003. Supply price of raise 6 sec

LASTCHANGED	DATE		Period date and time
DATETIME	DATE	X	Period expressed as Date/Time
INITIALSUPPLY	NUMBER(15,5)		Sum of initial generation and import for region
CLEAREDSUPPLY	NUMBER(15,5)		Sum of cleared generation and import for region
LOWERREGIMPORT	NUMBER(15,5)		Not used since Dec 2003. Lower Regulation MW imported
LOWERREGLOCALDISPATCH	NUMBER(15,5)		Lower Regulation local dispatch
LOWERREGLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Lower Regulation local requirement
LOWERREGREQ	NUMBER(15,5)		Not used since Dec 2003. Lower Regulation total requirement
RAISEREGIMPORT	NUMBER(15,5)		Not used since Dec 2003. Raise Regulation MW imported
RAISEREGLOCALDISPATCH	NUMBER(15,5)		Raise Regulation local dispatch
RAISEREGLOCALREQ	NUMBER(15,5)		Not used since Dec 2003. Raise Regulation local requirement
RAISEREGREQ	NUMBER(15,5)		Not used since Dec 2003. Raise Regulation total requirement
RAISE5MINLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 5 min local requirement
RAISEREGLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise Reg local requirement
RAISE60SECLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 60 sec local

ON			requirement
RAISE6SECLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 6 sec local requirement
LOWER5MINLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 5 min local requirement
LOWERREGLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower Reg local requirement
LOWER60SECLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 60 sec local requirement
LOWER6SECLOCALVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 6 sec local requirement
RAISE5MINVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 5 min requirement
RAISEREGVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise Reg requirement
RAISE60SECVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 60 seconds requirement
RAISE6SECVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Raise 6 seconds requirement
LOWER5MINVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 5 min requirement
LOWERREGVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower Reg requirement

LOWER60SECVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 60 seconds requirement
LOWER6SECVIOLATION	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 6 seconds requirement
RAISE6SECACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted raise 6sec availability
RAISE60SECACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted raise 60sec availability
RAISE5MINACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted raise 5min availability
RAISEREGACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted raise reg availability
LOWER6SECACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted lower 6sec availability
LOWER60SECACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted lower 60sec availability
LOWER5MINACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted lower 5min availability
LOWERREGACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted lower reg availability
DECAVAILABILITY	NUMBER(16,6)		generation availability taking into account daily energy constraints
LORSURPLUS	NUMBER(16,6)		Not used after Feb 2006. Total short term generation capacity reserve used in assessing lack of reserve condition
LRCSURPLUS	NUMBER(16,6)		Not used after Feb 2006. Total short term generation capacity

			reserve above the stated low reserve condition requirement
TOTALINTERMITTENTGENERATION	NUMBER(15,5)		Allowance made for non-scheduled generation in the demand forecast (MW).
DEMAND_AND_NONSCHEDULEDGEN	NUMBER(15,5)		Sum of Cleared Scheduled generation, imported generation (at the region boundary) and allowances made for non-scheduled generation (MW).
UIGF	NUMBER(15,5)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW).
SEMISCHEDULE_CLEARED MW	NUMBER(15,5)		Regional aggregated Semi-Schedule generator Cleared MW
SEMISCHEDULE_COMPLIANCE MW	NUMBER(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where Semi-Dispatch cap is enforced
SS_SOLAR_UIGF	Number(15,5)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW) where the primary fuel source is solar
SS_WIND_UIGF	Number (15,5)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW) where the primary fuel source is wind
SS_SOLAR_CLEAREDMW	Number(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where the primary fuel source is



			solar
SS_WIND_CLEAREDMW	Number(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where the primary fuel source is wind
SS_SOLAR_COMPLIANCEMW	Number(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where Semi-Dispatch cap is enforced and the primary fuel source is solar
SS_WIND_COMPLIANCEMW	Number(15,5)		Regional aggregated Semi-Schedule generator Cleared MW where Semi-Dispatch cap is enforced and the primary fuel source is wind

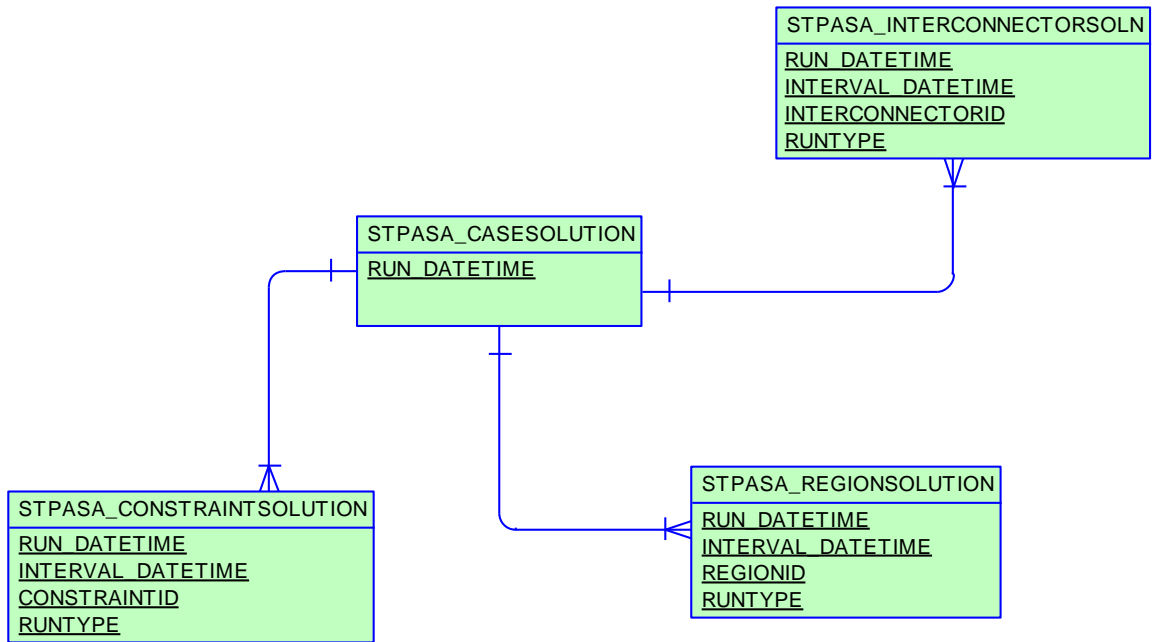
## 8 Package: STPASA\_SOLUTION

*Name* STPASA\_SOLUTION  
*Comment* Results from a published Short Term PASA Run

### 8.1 List of tables

Name	Comment
STPASA_REGIONSOLUTION	STPASA_REGIONSOLUTION shows the results of the regional capacity, maximum surplus reserve and maximum spare capacity evaluations for each period of the study.

## 8.2 Diagram: Entities: ST PASA Solution



## 8.3 Table: STPASA\_REGIONSOLUTION

<i>Name</i>	STPASA_REGIONSOLUTION
<i>Comment</i>	STPASA_REGIONSOLUTION shows the results of the regional capacity, maximum surplus reserve and maximum spare capacity evaluations for each period of the study.

### 8.3.1 Description

STPASA\_REGIONSOLUTION is public so is available to all participants.

#### Source

STPASA\_REGIONSOLUTION is updated each STPASA run (i.e every 2 hours).

#### Volume

Rows per day: 480

Mb per month: 8

### 8.3.2 Notes

Name	Comment	Value
Visibility	Data in this table is:	Public

### 8.3.3 Primary Key Columns

Name

INTERVAL\_DATETIME

REGIONID

RUN\_DATETIME

RUNTYPE

### 8.3.4 Index Columns

Name

LASTCHANGED

### 8.3.5 Content

Name	Data Type	Mandatory	Comment
RUN_DATETIME	DATE	X	Unique Timestamp Identifier for this study
INTERVAL_DATETIME	DATE	X	The unique identifier for the interval within this study
REGIONID	VARCHAR2(10)	X	Region Identifier
DEMAND10	NUMBER(12,2)		Input value for 10% probability demand
DEMAND50	NUMBER(12,2)		Input value for 50% probability demand
DEMAND90	NUMBER(12,2)		Input value for 90% probability demand
RESERVEREQ	NUMBER(12,2)		Input reserve requirement
CAPACITYREQ	NUMBER(12,2)		Demand + Reserve Requirement
ENERGYREQDEMAND50	NUMBER(12,2)		Sum of: (Region Period Demand - given Demand50)/Period (sum by trading day, entered in first period of trading day, GWh)
UNCONSTRAINEDCAPACITY	NUMBER(12,0)		Region energy unconstrained MW capacity subject to energy and network security constraints
CONSTRAINEDCAPACITY	NUMBER(12,0)		Available capacity (MW) in this region energy constrained MW capacity subject to energy and network security constraints

NETINTERCHANGEUNDER SCARCITY	NUMBER(12,2)		Net export in MW out of this region in the capacity adequacy evaluation. Export if > 0, Import if < 0.
SURPLUSCAPACITY	NUMBER(12,2)		Regional surplus capacity MW, +/- values indicate surplus/deficit capacity respectively
SURPLUSRESERVE	NUMBER(12,2)		Regional reserve surplus. +/- values indicate surplus/deficit reserve respectively
RESERVECONDITION	NUMBER(1,0)		The regional reserve condition: 0 Adequate, 1 LRC
MAXSURPLUSRESERVE	NUMBER(12,2)		The Maximum Surplus Reserve evaluated for this region in this period. Calculated for each region in turn.
MAXSPARECAPACITY	NUMBER(12,2)		The Maximum Spare Capacity evaluated for this region in this period. Calculated for each region in turn.
LORCONDITION	NUMBER(1,0)		The LOR Condition determined from the Maximum Spare Capacity value: 0 - no condition, 1 - LOR1 condition, 2 - LOR2 condition, 3 - LOR3 condition
AGGREGATECAPACITYAVAILABLE	NUMBER(12,2)		Sum of MAXAVAIL quantities offered by all Scheduled Generators in a given Region for a given PERIODID.
AGGREGATESCHEDULEDLOAD	NUMBER(12,2)		Sum of MAXAVAIL quantities bid by of all Scheduled Loads in a given Region for a given PERIODID.

LASTCHANGED	DATE		Last changed date of this record
AGGREGATEPASAAVAILABILITY	NUMBER(12,0)		Sum of PASAAVAILABILITY quantities offered by all Scheduled Generators in a given Region for a given PERIODID.
RUNTYPE	VARCHAR2(20)	X	Type of run. Values are RELIABILITY_LRC and OUTAGE_LRC
ENERGYREQDEMAND10	NUMBER(12,2)		Energy (GWh) required for this energy block based on the 10% probability of exceedance demand. Listed in the first interval of the energy block
CALCULATEDLOR1LEVEL	NUMBER(16,6)		Region Reserve Level for LOR1 used. Can be static value or calculated value if an interconnector is a credible contingency
CALCULATEDLOR2LEVEL	NUMBER(16,6)		Region Reserve Level for LOR2 used. Can be static value or calculated value if an interconnector is a credible contingency
MSRNETINTERCHANGEUN DERSCARCITY	NUMBER(12,2)		Net interconnector flow from the region for this interval from the MSR assessment
LORNETINTERCHANGEUN DERSCARCITY	NUMBER(12,2)		Net interconnector flow from the region for this interval from the LOR assessment
TOTALINTERMITTENTGENE RATION	NUMBER(15,5)		Allowance made for non-scheduled generation in the demand forecast (MW).
DEMAND_AND_NONSCHE	NUMBER(15,5)		Sum of Cleared Scheduled generation, imported generation

DGEN			(at the region boundary) and allowances made for non-scheduled generation (MW).
UIGF	NUMBER(12,2)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW).
SemiScheduledCapacity	NUMBER(12,2)		Aggregate Regional UIGF availability
LOR_SemiScheduledCapacity	NUMBER(12,2)		Aggregate Regional UIGF availability for LOR
LCR	NUMBER(16,6)		Largest Credible Risk. MW value for highest credible contingency
LCR2	NUMBER(16,6)		Two Largest Creditable Risks. MW value for highest two credible contingencies.
FUM	NUMBER(16,6)		Forecasting Uncertainty Measure. MW value of reserve calculated as defined in the Reserve Level Declaration Guidelines
SS_SOLAR_UIGF	Number(12,2)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW) where the primary fuel source is solar
SS_WIND_UIGF	Number (12,2)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW) where the primary fuel source is wind
SS_SOLAR_CAPACITY	Number (12,2)		Regional aggregated Semi-scheduled UIGF availability where the primary fuel source is solar



SS_WIND_CAPACITY	Number (12,2)		Regional aggregated Semi-scheduled UIGF availability where the primary fuel source is wind
SS_SOLAR_CLEARED	Number (12,2)		Regional aggregated Semi-scheduled cleared MW where the primary fuel source is solar and StudyRegion = Region
SS_WIND_CLEARED	Number (12,2)		Regional aggregated Semi-scheduled cleared MW where the primary fuel source is wind and StudyRegion = Region

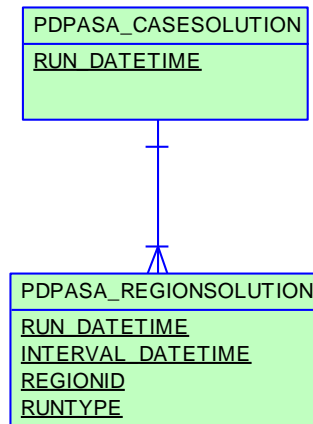
## 9 Package: PDPASA

<i>Name</i>	PDPASA
<i>Comment</i>	<p>The PDPASA package provides a 30-minute solving process to the Market systems</p> <p>The current methodology for calculating reserves in the PreDispatch timeframe is determined in a post processing step using a heuristic calculation based the results and Interconnector limits from the PreDispatch run.</p> <p>The calculation is a reserve assessment based on the PASA solver similar to existing ST and MT PASA business processes</p> <p>The process reflects all intra-regional and inter-regional network constraints as an input to the process</p>

### 9.1 List of tables

Name	Comment
PDPASA_REGIONSOLUTION	The PDPASA region solution data

## 9.2 Diagram: Entities: PD PASA



## 9.3 Table: PDPASA\_REGIONSOLUTION

<i>Name</i>	PDPASA_REGIONSOLUTION
<i>Comment</i>	The PDPASA region solution data

### 9.3.1 Description

PDPASA\_REGIONSOLUTION is public so is available to all participants.

#### Source

PDPASA\_REGIONSOLUTION is updated each PDPASA run (i.e. half-hourly).

#### Volume

Rows per day: 32000

#### Notes

##### LRC Determination

SURPLUSRESERVE is the surplus reserve in a region based on meeting the demand plus the reserve requirement in all regions simultaneously. Note that any surplus above the network restrictions and system reserve requirements is reported in the region it is generated, thus a surplus of zero can mean that a region is importing to meet a requirement or that it has exported all surplus to meet an adjacent region's requirement.

The PASA processes also calculate a regionally optimised surplus called the Maximum LRC Surplus (MAXSURPLUSRESERVE) being a figure on how much generation could be brought to this region subject to meeting requirements in other regions.

##### LOR Determination

MAXSPARECAPACITY is a regionally optimised figure representing the surplus generation able to be brought to a region subject to meeting the demand in all other regions.

Participants are directed to the first half hour of the Predispatch PASA (PDPASA) reports as NEMMCO's latest reserve determination for a given half hour.

### 9.3.2 Notes

Name	Comment	Value
Visibility	Data in this table is:	Public

### 9.3.3 Primary Key Columns

Name

INTERVAL\_DATETIME

REGIONID

RUN\_DATETIME

RUNTYPE

### 9.3.4 Index Columns

Name

LASTCHANGED

### 9.3.5 Content

Name	Data Type	Mandatory	Comment
RUN_DATETIME	DATE	X	Case identifier by the time the case was run
INTERVAL_DATETIME	DATE	X	End date time of the interval
REGIONID	VARCHAR2(10)	X	Region identifier
DEMAND10	NUMBER(12,2)		10% Probability of Exceedance demand forecast
DEMAND50	NUMBER(12,2)		50% Probability of Exceedance demand forecast
DEMAND90	NUMBER(12,2)		90% Probability of Exceedance demand forecast
RESERVEREQ	NUMBER(12,2)		Region reserve requirement (MW)
CAPACITYREQ	NUMBER(12,2)		Capacity required to meet the demand and reserve levels in the

			capacity adequacy assessment.
ENERGYREQDEMAND50	NUMBER(12,2)		Energy (GWh) required for this energy block based on the 50% probability of exceedance demand. Listed in the first interval of the energy block.
UNCONSTRAINEDCAPACITY	NUMBER(12,0)		Aggregate generator capability from Non Energy Constrained plant including restrictions due to network constraints from the capacity adequacy (LRC) assessment.
CONSTRAINEDCAPACITY	NUMBER(12,0)		Aggregate generator capability from Energy Constrained plant including restrictions due to network constraints
NETINTERCHANGEUNDER SCARCITY	NUMBER(12,2)		Net interconnector flow from the region for this interval from the capacity adequacy (LRC) assessment.
SURPLUSCAPACITY	NUMBER(12,2)		Surplus capacity (MW) above the demand, scheduled load and net interchange in this region from the capacity adequacy (LRC) assessment.
SURPLUSRESERVE	NUMBER(12,2)		Surplus reserve (MW) above the demand, scheduled load, net interchange and reserve requirement in this region from the capacity adequacy (LRC) assessment.
RESERVECONDITION	NUMBER(1,0)		Low Reserve Condition (LRC) flag for this region in this interval (1 - LRC, 0 - No LRC)

MAXSURPLUSRESERVE	NUMBER(12,2)		Maximum surplus reserve (MW) above the demand + reserve requirement able to be sourced to this region while meeting demand + reserve requirements in other regions.
MAXSPARECAPACITY	NUMBER(12,2)		Maximum spare capacity (MW) above the demand able to be sourced to this region while meeting demands in other regions.
LORCONDITION	NUMBER(1,0)		Lack of Reserve Condition (LOR) flag for this region and interval (3 = LOR3, 2 = LOR2, 1 = LOR1, 0 = No LOR)
AGGREGATECAPACITYAVAILABLE	NUMBER(12,2)		Sum of MAXAVAIL quantities offered by all Scheduled Generators in a given Region for a given PERIODID.
AGGREGATESCHEDULEDLOAD	NUMBER(12,2)		Sum of MAXAVAIL quantities bid by of all Scheduled Loads in a given Region for a given PERIODID.
LASTCHANGED	DATE		Date time the record was created or modified changed
AGGREGATEPASAAVAILABLE	NUMBER(12,0)		Sum of PASAAVAILABILITY quantities offered by all Scheduled Generators in a given Region for a given PERIODID.
RUNTYPE	VARCHAR2(20)	X	Type of run. Values are RELIABILITY_LRC and OUTAGE_LRC
ENERGYREQDEMAND10	NUMBER(12,2)		Energy (GWh) required for this energy block based on the 10% probability of exceedance demand.

			Listed in the first interval of the energy block
CALCULATEDLOR1LEVEL	NUMBER(16,6)		Region Reserve Level for LOR1 used. Can be static value or calculated value if an interconnector is a credible contingency
CALCULATEDLOR2LEVEL	NUMBER(16,6)		Region Reserve Level for LOR2 used. Can be static value or calculated value if an interconnector is a credible contingency
MSRNETINTERCHANGEUN DERSCARCITY	NUMBER(12,2)		Net interconnector flow from the region for this interval from the MSR assessment
LORNETINTERCHANGEUN DERSCARCITY	NUMBER(12,2)		Net interconnector flow from the region for this interval from the LOR assessment
TOTALINTERMITTENTGENE RATION	NUMBER(15,5)		Allowance made for non-scheduled generation in the demand forecast (MW).
DEMAND_AND_NONSCHE DGEN	NUMBER(15,5)		Sum of Cleared Scheduled generation, imported generation (at the region boundary) and allowances made for non-scheduled generation (MW).
UIGF	NUMBER(12,2)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW).
SemiScheduledCapacity	NUMBER(12,2)		Aggregate Regional UIGF availability
LOR_SemiScheduledCapaci	NUMBER(12,2)		Aggregate Regional UIGF



ty			availability for LOR
LCR	NUMBER(16,6)		Largest Credible Risk. MW value for highest credible contingency
LCR2	NUMBER(16,6)		Two Largest Creditable Risks. MW value for highest two credible contingencies.
FUM	NUMBER(16,6)		Forecasting Uncertainty Measure. MW value of reserve calculated as defined in the Reserve Level Declaration Guidelines
SS_SOLAR_UIGF	Number(12,2)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW) where the primary fuel source is solar
SS_WIND_UIGF	Number (12,2)		Regional aggregated Unconstrained Intermittent Generation Forecast of Semi-scheduled generation (MW) where the primary fuel source is wind
SS_SOLAR_CAPACITY	Number (12,2)		Regional aggregated Semi-scheduled UIGF availability where the primary fuel source is solar
SS_WIND_CAPACITY	Number (12,2)		Regional aggregated Semi-scheduled UIGF availability where the primary fuel source is wind
SS_SOLAR_CLEARED	Number (12,2)		Regional aggregated Semi-scheduled cleared MW where the primary fuel source is solar and StudyRegion = Region
SS_WIND_CLEARED	Number (12,2)		Regional aggregated Semi-scheduled cleared MW where the primary fuel source is wind and

			StudyRegion = Region
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