MMS Data Model Upgrade Report

MMS Data Model v5.2 Oracle

26/05/2023

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2 Description of the model MMS Data Model v5.2 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 Current product supplied by AEMO for data transfer is Participant Data Replication (PDR), with some support for the superseded Parser.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.

3 Notes

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

3.1 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).

4 Package: BIDS

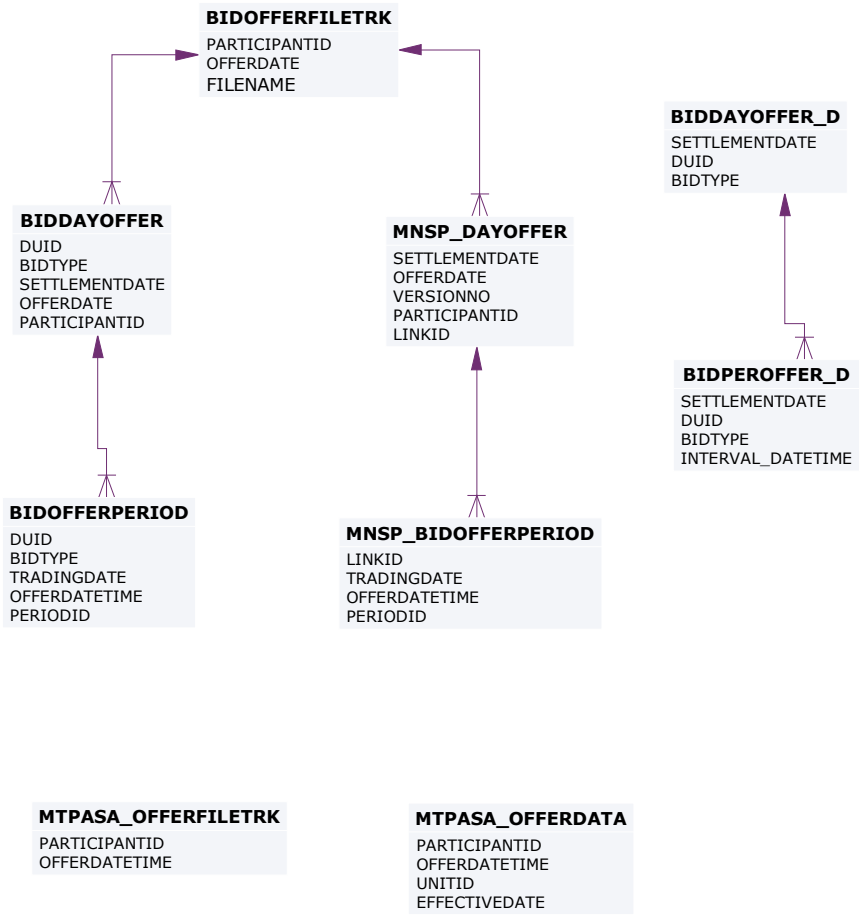
Name BIDS

Comment Energy and Market Based FCAS Offers

4.1 List of tables

Name	Comment
MTPASA_OFFERDATA	Participant submitted Offers for MTPASA process

4.2 Diagram: Entities: Bids



4.3 Table: MTPASA_OFFERDATA

Name MTPASA_OFFERDATA

Comment Participant submitted Offers for MTPASA process

4.3.1 Primary Key Columns

Name

EFFECTIVEDATE

OFFERDATETIME

PARTICIPANTID

UNITID

4.3.2 Index Columns

Name

LASTCHANGED

4.3.3 Content

Name	Data Type	Mandatory	Comment
PARTICIPANTID	VARCHAR2(20)	X	Unique participant identifier
OFFERDATETIME	DATE	X	Date time file processed
UNITID	VARCHAR2(20)	X	either duid or mnsp linkid
EFFECTIVEDATE	DATE	X	trade date when the offer becomes effective
ENERGY	NUMBER(9)		weekly energy constraint value
CAPACITY1	NUMBER(9)		capacity value day 1 (sunday)
CAPACITY2	NUMBER(9)		capacity value day 2 (monday)
CAPACITY3	NUMBER(9)		capacity value day 3 (tuesday)

CAPACITY4	NUMBER(9)		capacity value day 4 (wednesday)
CAPACITY5	NUMBER(9)		capacity value day 5 (thursday)
CAPACITY6	NUMBER(9)		capacity value day 6 (friday)
CAPACITY7	NUMBER(9)		capacity value day 7 (saturday)
LASTCHANGED	DATE		timestamp when record last changed
UNITSTATE1	VARCHAR2(20)		The unit state value for day 1 Sunday
UNITSTATE2	VARCHAR2(20)		The unit state value for day 2 Monday
UNITSTATE3	VARCHAR2(20)		The unit state value for day 3 Tuesday
UNITSTATE4	VARCHAR2(20)		The unit state value for 4 Wednesday
UNITSTATE5	VARCHAR2(20)		The unit state value for day 5 Thursday
UNITSTATE6	VARCHAR2(20)		The unit state value for day 6 Friday
UNITSTATE7	VARCHAR2(20)		The unit state value for day 7 Saturday
RECALLTIME1	NUMBER(4)		The recall time associated with the unit state for day 1 Sunday
RECALLTIME2	NUMBER(4)		The recall time associated with the unit state for day 2 Monday
RECALLTIME3	NUMBER(4)		The recall time associated with the unit state for day 3 Tuesday
RECALLTIME4	NUMBER(4)		The recall time associated with the unit state for day 4 Wednesday
RECALLTIME5	NUMBER(4)		The recall time associated with the unit state for day 5 Thursday
RECALLTIME6	NUMBER(4)		The recall time associated with the unit state for day 6 Friday
RECALLTIME7	NUMBER(4)		The recall time associated with the unit state for day 7 Saturday

5 Package: BILLING_RUN

Name BILLING_RUN

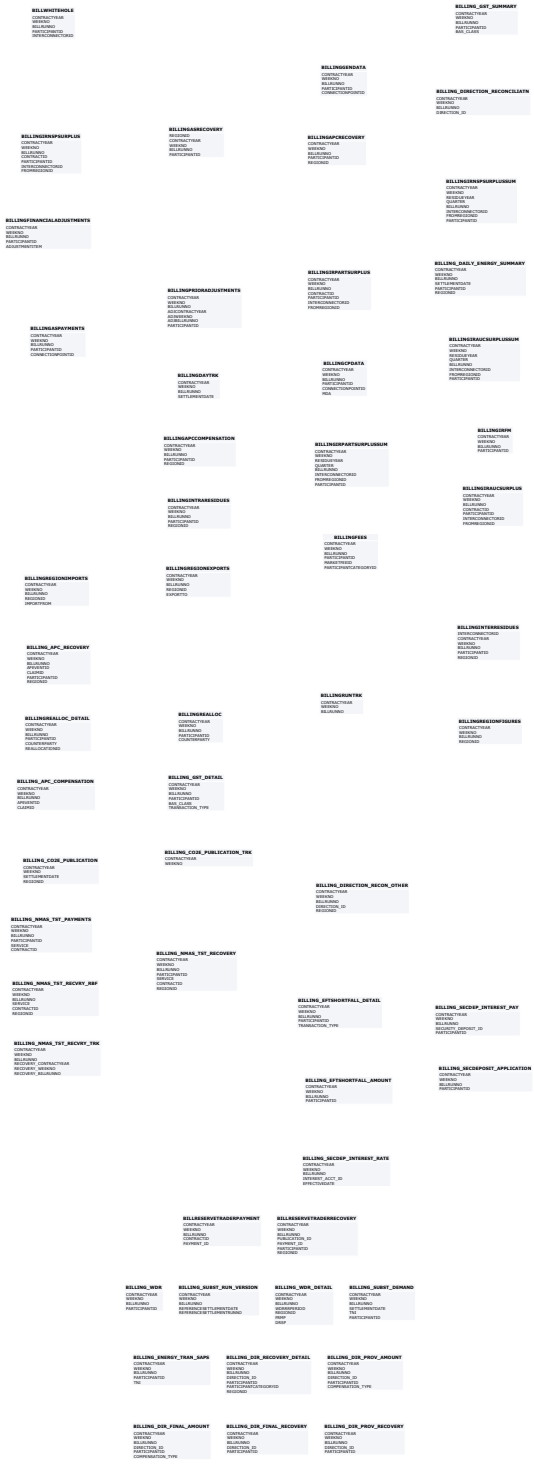
Comment Results from a published Billing Run. The settlement data and billing run data are updated daily between 6am and 8am for AEMO's prudential processes. In a normal week, AEMO publishes one PRELIM, one FINAL and two REVISION runs in addition to the daily runs.

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

5.1 List of tables

Name	Comment
BILLING_DIR_FINAL_AMOUNT	The Billing Final Directions Payment Amount for Directed/Affected/Eligible participants
BILLING_DIR_FINAL_RECOVERY	The Billing Final Directions Recovery Amount for the participants
BILLING_DIR_PROV_AMOUNT	The Billing Provisional Directions Payment Amount for Directed/Affected/Eligible participants
BILLING_DIR_PROV_RECOVERY	The Billing Provisional Directions Recovery Amount for the participants
BILLING_DIR_RECOVERY_DETAIL	The Billing Directions Recovery Details for the participants
BILLING_ENERGY_TRAN_SAPS	The SAP Billing Transaction Details for the Participants
BILLINGASPAYMENTS	BILLINGASPAYMENTS shows Ancillary Service payments for each billing period by each of the Ancillary Service types for each participant's connection points.
BILLINGASRECOVERY	BILLINGASRECOVERY shows participant charges for Ancillary Services for the billing period. This view shows the billing amounts for Ancillary Service Recovery.
BILLINGCPDATA	BILLINGCPDATA shows energy quantity and $ value purchased per participant connection point.
BILLRESERVETRADERRECOVERY	Provides details of the RERT Recovery Amount for the Market Customers.

5.2 Diagram: Entities: Billing Run



5.3 Table: BILLING_DIR_FINAL_AMOUNT

Name BILLING_DIR_FINAL_AMOUNT

Comment The Billing Final Directions Payment Amount for Directed/Affected/Eligible participants

5.3.1 Primary Key Columns

Name

BILLRUNNO

COMPENSATION_TYPE

CONTRACTYEAR

DIRECTION_ID

PARTICIPANTID

WEEKNO

5.3.2 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4,0)	X	The Billing Contract Year
WEEKNO	NUMBER(3,0)	X	The Billing WeekNo
BILLRUNNO	NUMBER(3,0)	X	The Billing RunNo
DIRECTION_ID	VARCHAR2(20)	X	The Direction Unique Identifier
PARTICIPANTID	VARCHAR2(20)	X	The Direction Payment Participant ID
COMPENSATION_TYPE	VARCHAR2(40)	X	The Direction Payment Type, Directed_Comp, Affected_Comp, Eligible_Comp.
PROVISIONAL_AMOUNT	NUMBER(18,8)		The Direction Provisional Payment Amount
FINAL_AMOUNT	NUMBER(18,8)		The Direction Final Payment Amount
LASTCHANGED	DATE		The Last datetime record is updated

5.4 Table: BILLING_DIR_FINAL_RECOVERY

Name BILLING_DIR_FINAL_RECOVERY

Comment The Billing Final Directions Recovery Amount for the participants

5.4.1 Primary Key Columns

Name

BILLRUNNO

CONTRACTYEAR

DIRECTION_ID

PARTICIPANTID

WEEKNO

5.4.2 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4,0)	X	The Billing Contract Year
WEEKNO	NUMBER(3,0)	X	The Billing WeekNo
BILLRUNNO	NUMBER(3,0)	X	The Billing RunNo
DIRECTION_ID	VARCHAR2(20)	X	The Direction Unique Identifier
PARTICIPANTID	VARCHAR2(20)	X	The Direction Payment Participant ID
CRA_AMOUNT	NUMBER(18,8)		The Direction Compensation Recovery Amount
PROVISIONAL_AMOUNT	NUMBER(18,8)		The Provisional Recovery Amount
FINAL_AMOUNT	NUMBER(18,8)		The Final Recovery Amount
LASTCHANGED	DATE		The Last datetime record is updated

5.5 Table: BILLING_DIR_PROV_AMOUNT

Name BILLING_DIR_PROV_AMOUNT

Comment The Billing Provisional Directions Payment Amount for Directed/Affected/Eligible participants

5.5.1 Primary Key Columns

Name

BILLRUNNO

COMPENSATION_TYPE

CONTRACTYEAR

DIRECTION_ID

PARTICIPANTID

WEEKNO

5.5.2 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4,0)	X	The Billing Contract Year
WEEKNO	NUMBER(3,0)	X	The Billing WeekNo
BILLRUNNO	NUMBER(3,0)	X	The Billing RunNo
DIRECTION_ID	VARCHAR2(20)	X	The Direction Unique Identifier
PARTICIPANTID	VARCHAR2(20)	X	The Direction Payment Participant ID
COMPENSATION_TYPE	VARCHAR2(40)	X	The Direction Payment Type, Directed_Comp, Affected_Comp, Eligible_Comp
COMPENSATION_AMOUNT	NUMBER(18,8)		The Direction Payment Amount
LASTCHANGED	DATE		The Last datetime record is updated

5.6 Table: BILLING_DIR_PROV_RECOVERY

Name BILLING_DIR_PROV_RECOVERY

Comment The Billing Provisional Directions Recovery Amount for the participants

5.6.1 Primary Key Columns

Name

BILLRUNNO

CONTRACTYEAR

DIRECTION_ID

PARTICIPANTID

WEEKNO

5.6.2 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4,0)	X	The Billing Contract Year
WEEKNO	NUMBER(3,0)	X	The Billing WeekNo
BILLRUNNO	NUMBER(3,0)	X	The Billing RunNo
DIRECTION_ID	VARCHAR2(20)	X	The Direction Unique Identifier
PARTICIPANTID	VARCHAR2(20)	X	The Direction Payment Participant ID
CRA_AMOUNT	NUMBER(18,8)		The Direction Compensation Recovery Amount
RECOVERY_AMOUNT	NUMBER(18,8)		The Direction Recovery Amount
LASTCHANGED	DATE		The Last datetime record is updated

5.7 Table: BILLING_DIR_RECOVERY_DETAIL

Name BILLING_DIR_RECOVERY_DETAIL

Comment The Billing Directions Recovery Details for the participants

5.7.1 Primary Key Columns

Name

BILLRUNNO

CONTRACTYEAR

DIRECTION_ID

PARTICIPANTCATEGORYID

PARTICIPANTID

REGIONID

WEEKNO

5.7.2 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4,0)	X	The Billing Contract Year
WEEKNO	NUMBER(3,0)	X	The Billing WeekNo
BILLRUNNO	NUMBER(3,0)	X	The Billing RunNo
DIRECTION_ID	VARCHAR2(20)	X	The Direction Unique Identifier
PARTICIPANTID	VARCHAR2(20)	X	The Direction Payment Participant ID
PARTICIPANTCATEGORYID	VARCHAR2(20)	X	The Participant Category for recovery Customer/Generator /SmallGen
REGIONID	VARCHAR2(20)	X	The Region ID for the recovery
RECOVERY_AMOUNT	NUMBER(18,8)		The Direction Recovery Amount
RECOVERY_ENERGY	NUMBER(18,8)		The Energy Value used for the Recovery

REGION_ENERGY	NUMBER(18,8)		The total Energy at the Region ID
EXCLUDED_ENERGY	NUMBER(18,8)		The Energy Value (Scheduled Loads) that is excluded
LASTCHANGED	DATE		The Last datetime record is updated

5.8 Table: BILLING_ENERGY_TRAN_SAPS

Name BILLING_ENERGY_TRAN_SAPS

Comment The SAP Billing Transaction Details for the Participants

5.8.1 Primary Key Columns

Name

BILLRUNNO

CONTRACTYEAR

PARTICIPANTID

TNI

WEEKNO

5.8.2 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4,0)	X	The Billing Contract Year
WEEKNO	NUMBER(3,0)	X	The Billing WeekNo
BILLRUNNO	NUMBER(3,0)	X	The Billing RunNo
PARTICIPANTID	VARCHAR2(20)	X	The SAP Participant ID
TNI	VARCHAR2(20)	X	The SAPS Connection Point ID
REGIONID	VARCHAR2(20)		The Region ID associated with the TNI
CONSUMED_ENERGY_MWH	NUMBER(18,8)		The Energy MWh Consumed for that TNI for the Participant Id in that Billing Week
SENTOUT_ENERGY_MWH	NUMBER(18,8)		The Energy MWh Sent Out for the TNI for the Participant Id in that Billing Week
CONSUMED_ENERGY_COST	NUMBER(18,8)		The Cost of the Consumed Energy
SENTOUT_ENERGY_COST	NUMBER(18,8)		The Cost of the Sent Out Energy
LASTCHANGED	DATE		The Last datetime record is updated

5.9 Table: BILLINGASPAYMENTS

Name	BILLINGASPAYMENTS
Comment	BILLINGASPAYMENTS shows Ancillary Service payments for each billing period by each of the Ancillary Service types for each participant's connection points.

5.9.1 Description

BILLINGASPAYMENTS data is confidential to relevant participant.

Source

Updated with each billing run.

Volume

The volume is according to the number of Transmission ConnectionPointIDs a Participant may have subject to ancillary payment per billrunno. An indicative maximum is approximately 20 records are inserted per billrunno, or about 220 records inserted per week.

5.9.2 Primary Key Columns

Name

BILLRUNNO

CONNECTIONPOINTID

CONTRACTYEAR

PARTICIPANTID

WEEKNO

5.9.3 Index Columns

Name

LASTCHANGED

5.9.4 Content

Name	Data Type	Mandatory	Comment

REGIONID	VARCHAR2(10)		Region Identifier
CONTRACTYEAR	NUMBER(4,0)	X	Contract Year
WEEKNO	NUMBER(3,0)	X	Week No
BILLRUNNO	NUMBER(3,0)	X	Billing Run No.
PARTICIPANTID	VARCHAR2(10)	X	Participant Identifier
CONNECTIONPOINTID	VARCHAR2(10)	X	Connection point identifier
RAISE6SEC	NUMBER(15,5)		Raise 6 Sec Payments
LOWER6SEC	NUMBER(15,5)		Lower 6 Sec Payments
RAISE60SEC	NUMBER(15,5)		Raise 60 Sec Payments
LOWER60SEC	NUMBER(15,5)		Lower 60 Sec Payments
AGC	NUMBER(15,5)		AGC Payments
FCASCOMP	NUMBER(15,5)		Frequency Control Compensation Payments
LOADSHED	NUMBER(15,5)		Load Shed Payments
RGUL	NUMBER(15,5)		Rapid Generator unit Loading Payments
RGUU	NUMBER(15,5)		Rapid Generator Unit Unloading Payments
REACTIVEPOWER	NUMBER(15,5)		Reactive Power Payments
SYSTEMRESTART	NUMBER(15,5)		System Restart Payments
LASTCHANGED	DATE		The latest date and time that a file was updated or inserted
LOWER5MIN	NUMBER(15,5)		Lower 5 Minute Payment
RAISE5MIN	NUMBER(15,5)		Raise 5 Minute Payment
LOWERREG	NUMBER(15,5)		Lower 5 Minute Regulation Payment
RAISEREG	NUMBER(15,5)		Raise 5 Minute Regulation Payment
AVAILABILITY_REACTIVE	NUMBER(18,8)		The total availability payment
AVAILABILITY_REACTIVE_RBT	NUMBER(18,8)		The total availability payment rebate
RAISE1SEC	NUMBER(18,8)		Payment amount for the very fast raise

			service
LOWER1SEC	NUMBER(18,8)		Payment amount for the very fast lower service

5.10 Table: BILLINGASRECOVERY

Name	BILLINGASRECOVERY
Comment	BILLINGASRECOVERY shows participant charges for Ancillary Services for the billing period. This view shows the billing amounts for Ancillary Service Recovery.

5.10.1 Description

BILLINGASRECOVERY data is confidential to relevant participant.

Source

Updated with each billing run.

Volume

Approximately 5 records are inserted per billrunno, or about 55 records inserted per week.

5.10.2 Primary Key Columns

Name

BILLRUNNO

CONTRACTYEAR

PARTICIPANTID

REGIONID

WEEKNO

5.10.3 Index Columns

Name

LASTCHANGED

5.10.4 Content

Name	Data Type	Mandatory	Comment
REGIONID	VARCHAR2(10)	X	Region Identifier

CONTRACTYEAR	NUMBER(4,0)	X	Contract Year
WEEKNO	NUMBER(3,0)	X	Week No
BILLRUNNO	NUMBER(3,0)	X	Billing Run No.
PARTICIPANTID	VARCHAR2(10)	X	Participant Identifier
RAISE6SEC	NUMBER(15,5)		Raise 6 Sec Recovery
LOWER6SEC	NUMBER(15,5)		Lower 6 Sec Recovery
RAISE60SEC	NUMBER(15,5)		Raise 60 Sec Recovery
LOWER60SEC	NUMBER(15,5)		Lower 60 Sec Recovery
AGC	NUMBER(15,5)		AGC Recovery - Not used since circa 2000
FCASCOMP	NUMBER(15,5)		Frequency Control Compensation Recovery - Not used since circa 2000
LOADSHED	NUMBER(15,5)		Load Shed Recovery
RGUL	NUMBER(15,5)		Rapid Generator Unit Loading Recovery - Not used since December 2001
RGUU	NUMBER(15,5)		Rapid Generator Unit Unloading Recovery - Not used since December 2001
REACTIVEPOWER	NUMBER(15,5)		Reactive Power Recovery
SYSTEMRESTART	NUMBER(15,5)		System Restart Recovery
LASTCHANGED	DATE		The latest date and time a file was updated/inserted
RAISE6SEC_GEN	NUMBER(15,5)		Raise 6 Sec Recovery for Generator
LOWER6SEC_GEN	NUMBER(15,5)		Lower 6 Sec Recovery for Generator
RAISE60SEC_GEN	NUMBER(15,5)		Raise 60 Sec Recovery for Generator
LOWER60SEC_GEN	NUMBER(15,5)		Lower 60 Sec Recovery for Generator
AGC_GEN	NUMBER(15,5)		AGC Recovery for Generator
FCASCOMP_GEN	NUMBER(15,5)		Frequency Control Compensation Recovery for Generator
LOADSHED_GEN	NUMBER(15,5)		Load Shed Recovery for Generator

RGUL_GEN	NUMBER(15,5)		Rapid Generator unit Loading Recovery for. Generator - Not used since December 2001
RGUU_GEN	NUMBER(15,5)		Rapid Generator Unit Unloading Recovery for Generator - Not used since December 2001
REACTIVEPOWER_GEN	NUMBER(15,5)		Reactive Power Recovery for Generator
SYSTEMRESTART_GEN	NUMBER(15,5)		System Restart Recovery for Generator
LOWER5MIN	NUMBER(15,5)		Recovery amount for the Lower 5 Minute service attributable to customer connection points
RAISE5MIN	NUMBER(15,5)		Recovery amount for the Raise 5 Minute service attributable to customer connection points
LOWERREG	NUMBER(15,5)		Recovery amount for the Lower Regulation service attributable to customer connection points
RAISEREG	NUMBER(15,5)		Recovery amount for the Raise Regulation Second service attributable to customer connection points
LOWER5MIN_GEN	NUMBER(16,6)		Recovery amount for the Lower 5 Minute service attributable to generator connection points
RAISE5MIN_GEN	NUMBER(16,6)		Recovery amount for the Raise 5 Minute service attributable to generator connection points
LOWERREG_GEN	NUMBER(16,6)		Recovery amount for the Lower Regulation service attributable to generator connection points
RAISEREG_GEN	NUMBER(16,6)		Recovery amount for the Raise Regulation Second service attributable to generator connection points
AVAILABILITY_REACTIVE	NUMBER(18,8)		The total availability payment recovery amount (customer).
AVAILABILITY_REACTIVE_RBT	NUMBER(18,8)		The total availability payment rebate recovery amount (customer).
AVAILABILITY_REACTIVE_GEN	NUMBER(18,8)		The total availability payment recovery amount (Generator).

AVAILABILITY_REACTIVE_RBT_GEN	NUMBER(18,8)		The total availability payment rebate recovery amount (Generator).
RAISE1SEC	NUMBER(18,8)		Customer recovery amount for the very fast raise service
LOWER1SEC	NUMBER(18,8)		Customer recovery amount for the very fast lower service
RAISE1SEC_GEN	NUMBER(18,8)		Generator recovery amount for the very fast raise service
LOWER1SEC_GEN	NUMBER(18,8)		Generator recovery amount for the very fast lower service

5.11 Table: BILLINGCPDATA

Name	BILLINGCPDATA
Comment	BILLINGCPDATA shows energy quantity and $ value purchased per participant connection point.

5.11.1 Description

BILLINGCPDATA data is confidential to relevant participant.

Source

Populated by the posting of a billing run, being several times each week.

Volume

The number of records depends on the number of Transmission ConnectionPointIDs a participant may use to purchase energy. An indicative maximum is approximately 150 records per billrunno, or about 1,500 records inserted per week.

5.11.2 Primary Key Columns

Name

BILLRUNNO

CONNECTIONPOINTID

CONTRACTYEAR

MDA

PARTICIPANTID

WEEKNO

5.11.3 Index Columns

Name

LASTCHANGED

5.11.4 Index Columns

Name

PARTICIPANTID

5.11.5 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4,0)	X	AEMO Contract Year number starting in week containing 1st January
WEEKNO	NUMBER(3,0)	X	Week no within the contract year. Week no 1 is the week containing 1st January
BILLRUNNO	NUMBER(3,0)	X	Unique run no within a given contract year and week no
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier
CONNECTIONPOINTID	VARCHAR2(10)	X	Unique connection point identifier
AGGREGATEENERGY	NUMBER(16,6)		Aggregate energy purchased/sold by customer, in MWh, plus UFEA. When GS commences, this includes the UFEA amount in the settlement runs.
PURCHASES	NUMBER(16,6)		The Purchase column has the dollar value of the Energy Purchased rather than Aggregate Energy Dollar
LASTCHANGED	DATE		Last date and time record changed
MDA	VARCHAR2(10)	X	relevant MDA for this connection point.
AFE	NUMBER(18,8)		Adjusted Gross Energy for this Market Customer FRMP and TNI in the Billing run, excluding any UFEA component.
DME	NUMBER(18,8)		Sum of ME- for all NMIs at this Market Customer FRMP and TNI in the Billing run.
UFEA	NUMBER(18,8)		Share of UFE allocated to this FRMP and TNI in the Billing run.
AGE	NUMBER(18,8)		Adjusted Gross Energy for this Market Customer FRMP and TNI in the trading interval. This will include the UFEA value once financial settlement of UFE commences with GS.
SOLDENERGY	NUMBER(18,8)		Energy sold at the connection point by the

			participant in this billing run
SALES	NUMBER(18,8)		The total cost of energy sold at the connection point by the participant in this billing run
PURCHASEDENERGY	NUMBER(18,8)		The energy consumed at the connection point by the participant in this billing run

5.12 Table: BILLRESERVETRADERRECOVERY

Name BILLRESERVETRADERRECOVERY

Comment Provides details of the RERT Recovery Amount for the Market Customers.

5.12.1 Primary Key Columns

Name

BILLRUNNO

CONTRACTYEAR

PARTICIPANTID

PAYMENT_ID

PUBLICATION_ID

REGIONID

WEEKNO

5.12.2 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4,0)	X	Billing contract year
WEEKNO	NUMBER(3,0)	X	Billing week number
BILLRUNNO	NUMBER(3,0)	X	Billing posted run number
PUBLICATION_ID	VARCHAR2(40)	X	Unique Publication Identifier for RERT Payment
PAYMENT_ID	NUMBER(3,0)	X	RERT payment number
PAYMENT_AMOUNT	NUMBER(18,8)		RERT payment amount
PARTICIPANTID	VARCHAR2(20)	X	Participant identifier.
REGIONID	VARCHAR2(20)	X	Region from which the amount is recovered
PARTICIPANT_DEMAND	NUMBER(18,8)		Participant Demand Value used for RERT

			Recovery
REGION_DEMAND	NUMBER(18,8)		Region Demand Value used for RERT Recovery
ELIGIBILITY_START_INTERVAL	DATE		Starting Period of RERT Recovery for Usage Payments
ELIGIBILITY_END_INTERVAL	DATE		Ending Period of RERT Recovery for Usage Payments
RECOVERY_AMOUNT	NUMBER(18,8)		Recovery Amount applicable for each Market Customer
EXCLUDED_ENERGY	NUMBER(18,8)		The Energy Value (Scheduled Loads) that is excluded

6 Package: DEMAND_FORECASTS

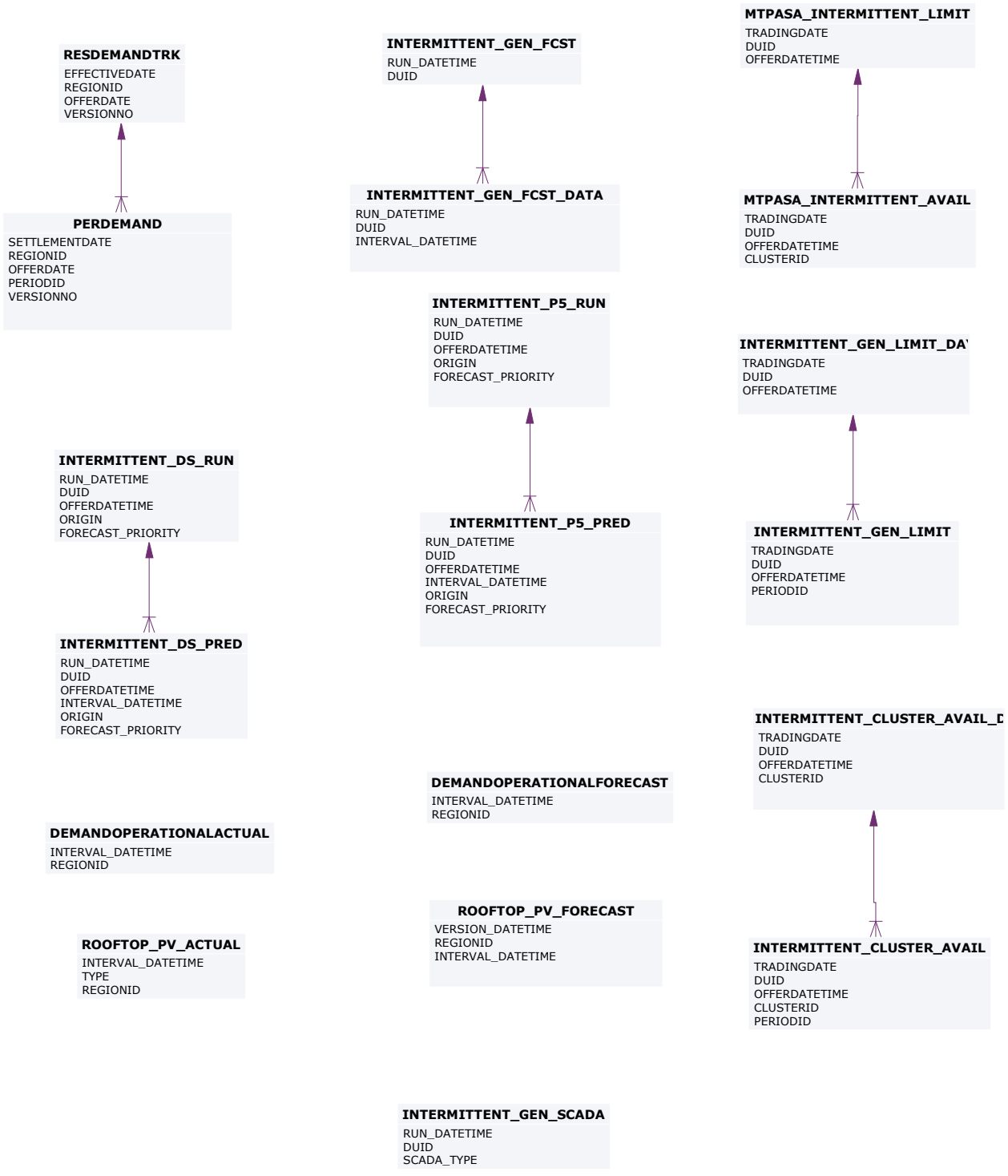
Name DEMAND_FORECASTS

Comment Regional Demand Forecasts and Intermittent Generation forecasts.

6.1 List of tables

Name	Comment
INTERMITTENT_GEN_FCST_DATA	Stores the forecast generation (MW) for each interval within a given forecast of an intermittent generator.
INTERMITTENT_GEN_SCADA	INTERMITTENT_GEN_SCADA provides the SCADA Availability for every intermittent generating unit, including Elements Available (wind turbines/solar inverters) and Local Limit

6.2 Diagram: Entities: Demand Forecasts



6.3 Table: INTERMITTENT_GEN_FCST_DATA

Name	INTERMITTENT_GEN_FCST_DATA
Comment	Stores the forecast generation (MW) for each interval within a given forecast of an intermittent generator.

6.3.1 Description

Source

INTERMITTENT_GEN_FCST_DATA updates every 30 minutes when AEMO issues a new 30-minute forecast of wind generation out to 8 days ahead.

Volume

~1,500,000 rows per generator per year

6.3.2 Primary Key Columns

Name

DUID

INTERVAL_DATETIME

RUN_DATETIME

6.3.3 Content

Name	Data Type	Mandatory	Comment
RUN_DATETIME	DATE	X	Date Time of forecast (AEST).
DUID	VARCHAR2(20)	X	Identifier of the intermittent generator
INTERVAL_DATETIME	DATE	X	Date Time (AEST) of the halfhour interval being forecast
POWERMEAN	NUMBER(9,3)		The average forecast value in MW at the interval end
POWERPOE50	NUMBER(9,3)		50% probability of exceedance forecast value in MW at the interval end
POWERPOELOW	NUMBER(9,3)		10% probability of exceedance forecast value in MW at the interval end

POWERPOEHIGH	NUMBER(9,3)		90% probability of exceedance forecast value in MW at the interval end
LASTCHANGED	DATE		Date Time record was created

6.4 Table: INTERMITTENT_GEN_SCADA

Name INTERMITTENT_GEN_SCADA

Comment INTERMITTENT_GEN_SCADA provides the SCADA Availability for every intermittent generating unit, including Elements Available (wind turbines/solar inverters) and Local Limit

6.4.1 Primary Key Columns

Name

DUID

RUN_DATETIME

SCADA_TYPE

6.4.2 Content

Name	Data Type	Mandatory	Comment
RUN_DATETIME	DATE	X	Date Time of the dispatch interval (interval ending)
DUID	VARCHAR2(20)	X	Dispatchable Unit Identifier
SCADA_TYPE	VARCHAR2(20)	X	SCADA snapshot for intermittent generating unit at start of interval for a specified SCADA signal type. ELAV = Total Elements Available (# turbines for wind farms, # inverters for solar farms); LOCL = Local Limit (MW).
SCADA_VALUE	NUMBER(15,5)		SCADA value snapshot for intermittent generating unit at start of interval for a specified SCADA signal type.
SCADA_QUALITY	VARCHAR2(20)		SCADA quality snapshot for intermittent generating unit at start of interval for a specified SCADA signal type.

7 Package: DISPATCH

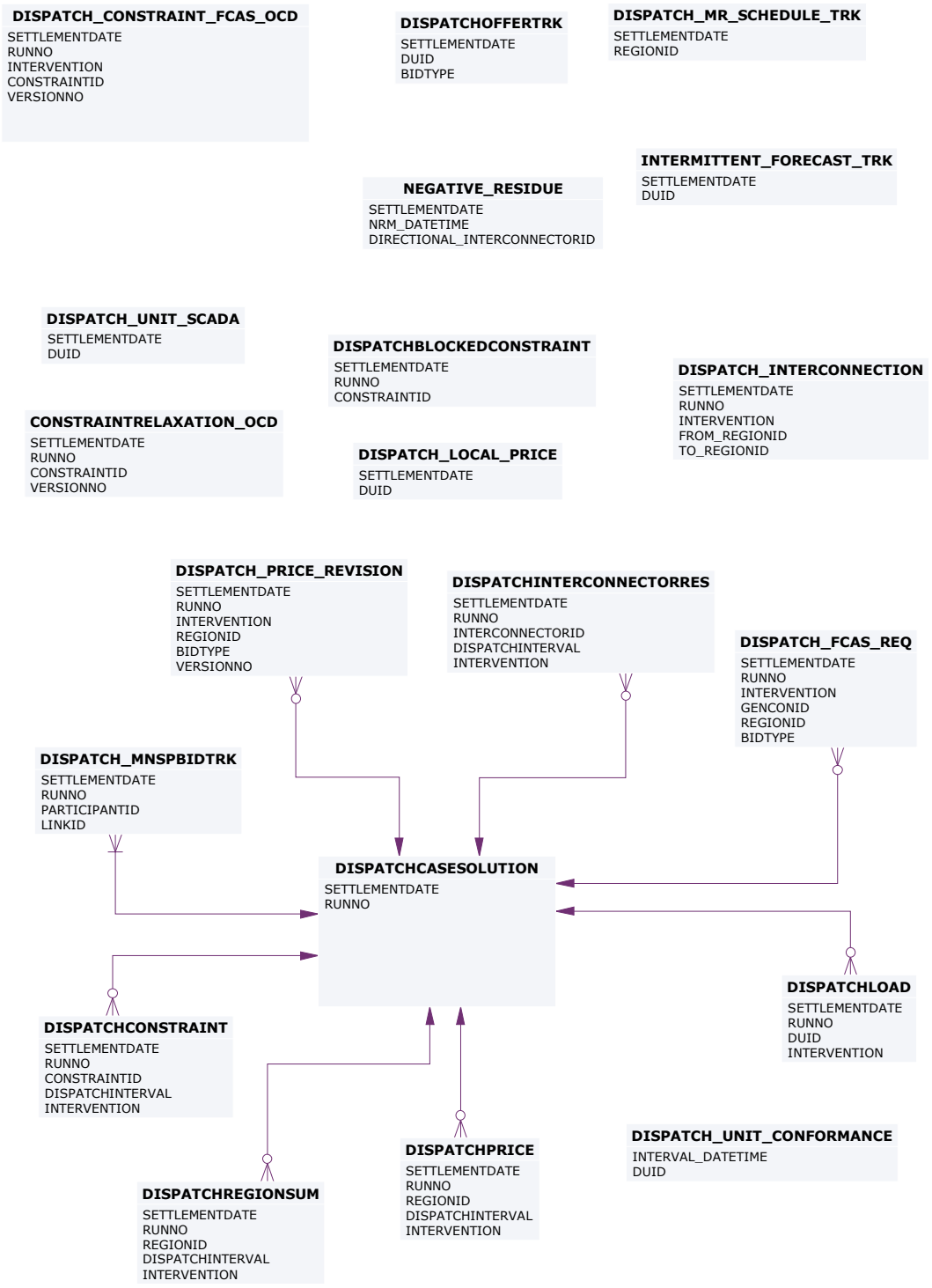
Name DISPATCH

Comment Results from a published Dispatch Run

7.1 List of tables

Name	Comment
DISPATCH_UNIT_CONFORMANCE	DISPATCH_UNIT_CONFORMANCE details the conformance of a scheduled units operation with respect to a cleared target on dispatch interval basis. Data is confidential
DISPATCHLOAD	DISPATCHLOAD set out the current SCADA MW and target MW for each dispatchable unit, including relevant Frequency Control Ancillary Services (FCAS) enabling targets for each five minutes and additional fields to handle the new Ancillary Services functionality. Fast Start Plant status is indicated by dispatch mode.
DISPATCHPRICE	DISPATCHPRICE records 5 minute dispatch prices for energy and FCAS, including whether an intervention has occurred, or price override (e.g. for Administered Price Cap). DISPATCHPRICE updates when price adjustments occur, in which case the new price is written to the RRP field, and the old price to the ROP field as an audit trail.
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.

7.2 Diagram: Entities: Dispatch



7.3 Table: DISPATCH_UNIT_CONFORMANCE

Name	DISPATCH_UNIT_CONFORMANCE
Comment	DISPATCH_UNIT_CONFORMANCE details the conformance of a scheduled units operation with respect to a cleared target on dispatch interval basis. Data is confidential

7.3.1 Description

DISPATCH_UNIT_CONFORMANCE data is confidential.

Source

DISPATCH_UNIT_CONFORMANCE shows data for every 5 minutes for all scheduled units

Volume

Rows per day: 288 per scheduled unit

7.3.2 Primary Key Columns

Name

DUID

INTERVAL_DATETIME

7.3.3 Index Columns

Name

LASTCHANGED

7.3.4 Content

Name	Data Type	Mandatory	Comment
INTERVAL_DATETIME	DATE	X	Dispatch Interval that the conformance data applies to
DUID	VARCHAR2(20)	X	Dispatchable Unit Identifier, or Aggregate Dispatch Group identifier
TOTALCLEARED	NUMBER(16,6)		Dispatch Target - MW

ACTUALMW	NUMBER(16,6)		Unit output measured at the conclusion of the dispatch interval - MW (MWB)
ROC	NUMBER(16,6)		Rate of change in direction of error MW per minute
AVAILABILITY	NUMBER(16,6)		Offered unit capacity - MW (MWO)
LOWERREG	NUMBER(16,6)		Lower Regulation FCAS enabled - MW (FCL)
RAISEREG	NUMBER(16,6)		Raise Regulation FCAS enabled - MW (FCR)
STRIGLM	NUMBER(16,6)		Calculated small trigger error limit in MW
LTRIGLM	NUMBER(16,6)		Calculated large trigger error limit in MW
MWERROR	NUMBER(16,6)		Calculated actual error
MAX_MWERROR	NUMBER(16,6)		Max of mwerror while that unit was not in a normal state
LECOUNT	NUMBER(6)		Large trigger error count. Reset when mwerror changes sign
SECOUNT	NUMBER(6)		Small trigger error count. Reset when mwerror changes sign
STATUS	VARCHAR2(20)		Unit conformance status. NORMAL OFF-TARGET NOT-RESPONDING NC-PENDING NON-CONFORMING SUSPENDED
PARTICIPANT_STATUS_ACTION	VARCHAR2(100)		Participant action required in response to current STATUS
OPERATING_MODE	VARCHAR2(20)		conformance operating mode MANUAL AUTO
LASTCHANGED	DATE		Last date and time record changed
ADG_ID	VARCHAR2(20)		Aggregate Dispatch Group to which this dispatch unit belongs

SEMIDISPATCHCAP	NUMBER(3,0)		Boolean representation flagging if the Target is capped
CONFORMANCE_MODE	NUMBER(6,0)		For an individual unit in an aggregate dispatch group (where DUID <> ADG_ID), Mode specific to that unit. 0 - no monitoring, 1 - aggregate monitoring, 2 - individual monitoring due to constraint. For the aggregate dispatch group (where DUID = ADG_ID), 0 - no aggregate monitoring, 1 - aggregate monitoring

7.4 Table: DISPATCHLOAD

Name	DISPATCHLOAD
Comment	DISPATCHLOAD set out the current SCADA MW and target MW for each dispatchable unit, including relevant Frequency Control Ancillary Services (FCAS) enabling targets for each five minutes and additional fields to handle the new Ancillary Services functionality. Fast Start Plant status is indicated by dispatch mode.

7.4.1 Description

DISPATCHLOAD data is confidential for the current day, showing own details for participant and becomes public after close of business yesterday, and is available to all participants.

Source

DISPATCHLOAD shows data for every 5 minutes for all units, even zero targets.

Volume

Expect 40-50,000 records per day. All units are repeated, even zero targets.

Note

** A flag exists for each ancillary service type such that a unit trapped or stranded in one or more service type can be immediately identified. The flag is defined using the low 3 bits as follows:

Flag Name	Bit	Description
Enabled	0	The unit is enabled to provide this ancillary service type.
Trapped	1	The unit is enabled to provide this ancillary service type, however the profile for this service type is causing the unit to be trapped in the energy market.
Stranded	2	The unit is bid available to provide this ancillary service type, however, the unit is operating in the energy market outside of the profile for this service type and is stranded from providing this service.

Interpretation of the bit-flags as a number gives the following possibilities (i.e. other combinations are not possible):

Numeric Value	Bit (2,1,0)	Meaning
0	000	Not stranded, not trapped, not enabled.
1	001	Not stranded, not trapped, is enabled.
3	011	Not stranded, is trapped, is enabled.
4	100	Is stranded, not trapped, not enabled.

For example, testing for availability can be done by checking for odd (=available) or even (=unavailable) number (e.g. `mod(flag,2)` results in 0 for unavailable and 1 for available).

*** "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.

7.4.2 Primary Key Columns

Name

DUID

INTERVENTION

RUNNO

SETTLEMENTDATE

7.4.3 Index Columns

Name

LASTCHANGED

7.4.4 Index Columns

Name

DUID

LASTCHANGED

7.4.5 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
DUID	VARCHAR2(10)	X	Dispatchable unit identifier
TRADETYPE	NUMBER(2,0)		Not used
DISPATCHINTERVAL	NUMBER(22,0)		Dispatch period identifier, from 001 to 288 in format YYYYMMDDPPP.
INTERVENTION	NUMBER(2,0)	X	Intervention flag if intervention run
CONNECTIONPOINTID	VARCHAR2(12)		Connection point identifier for DUID
DISPATCHMODE	NUMBER(2,0)		Dispatch mode for fast start plant (0 to 4).
AGCSTATUS	NUMBER(2,0)		AGC Status from EMS * 1 = on

			* 0 = off
INITIALMW	NUMBER(15,5)		Initial MW at start of period
TOTALCLEARED	NUMBER(15,5)		Target MW for end of period
RAMPDOWNRATE	NUMBER(15,5)		Ramp down rate used in dispatch (lesser of bid or telemetered rate).
RAMPUPRATE	NUMBER(15,5)		Ramp up rate (lesser of bid or telemetered rate).
LOWER5MIN	NUMBER(15,5)		Lower 5 min reserve target
LOWER60SEC	NUMBER(15,5)		Lower 60 sec reserve target
LOWER6SEC	NUMBER(15,5)		Lower 6 sec reserve target
RAISE5MIN	NUMBER(15,5)		Raise 5 min reserve target
RAISE60SEC	NUMBER(15,5)		Raise 60 sec reserve target
RAISE6SEC	NUMBER(15,5)		Raise 6 sec reserve target
DOWNEPF	NUMBER(15,5)		Not Used
UPEPF	NUMBER(15,5)		Not Used
MARGINAL5MINVALUE	NUMBER(15,5)		Marginal $ value for 5 min
MARGINAL60SECVALUE	NUMBER(15,5)		Marginal $ value for 60 seconds
MARGINAL6SECVALUE	NUMBER(15,5)		Marginal $ value for 6 seconds
MARGINALVALUE	NUMBER(15,5)		Marginal $ value for energy
VIOLATION5MINDEGREE	NUMBER(15,5)		Violation MW 5 min
VIOLATION60SECDEGREE	NUMBER(15,5)		Violation MW 60 seconds
VIOLATION6SECDEGREE	NUMBER(15,5)		Violation MW 6 seconds
VIOLATIONDEGREE	NUMBER(15,5)		Violation MW energy
LASTCHANGED	DATE		Last date and time record changed
LOWERREG	NUMBER(15,5)		Lower Regulation reserve target
RAISEREG	NUMBER(15,5)		Raise Regulation reserve target
AVAILABILITY	NUMBER(15,5)		For Scheduled units, this is the MAXAVAIL bid availability For Semi-scheduled units, this is the lower of

			MAXAVAIL bid availability and UIGF
RAISE6SECFLAGS	NUMBER(3,0)		Raise 6sec status flag - see
RAISE60SECFLAGS	NUMBER(3,0)		Raise 60sec status flag - see
RAISE5MINFLAGS	NUMBER(3,0)		
RAISEREGFLAGS	NUMBER(3,0)		Raise Reg status flag - see
LOWER6SECFLAGS	NUMBER(3,0)		Lower 6sec status flag - see
LOWER60SECFLAGS	NUMBER(3,0)		Lower 60sec status flag
LOWER5MINFLAGS	NUMBER(3,0)		Lower 5min status flag
LOWERREGFLAGS	NUMBER(3,0)		Lower Reg status flag - see
RAISEREGAVAILABILITY	NUMBER(15,5)		RaiseReg availability - minimum of bid and telemetered value
RAISEREGENABLEMENTMAX	NUMBER(15,5)		RaiseReg enablement max point - minimum of bid and telemetered value
RAISEREGENABLEMENTMIN	NUMBER(15,5)		RaiseReg Enablement Min point - maximum of bid and telemetered value
LOWERREGAVAILABILITY	NUMBER(15,5)		Lower Reg availability - minimum of bid and telemetered value
LOWERREGENABLEMENTMAX	NUMBER(15,5)		Lower Reg enablement Max point - minimum of bid and telemetered value
LOWERREGENABLEMENTMIN	NUMBER(15,5)		Lower Reg Enablement Min point - maximum of bid and telemetered value
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
SEMIDISPATCHCAP	NUMBER(3,0)		Boolean representation flagging if the Target is Capped
DISPATCHMODETIME	NUMBER(4,0)		Minutes for which the unit has been in the current DISPATCHMODE. From NEMDE TRADERSOLUTION element FSTARGETMODETIME attribute.
CONFORMANCE_MODE	NUMBER(6,0)		Mode specific to units within an aggregate. 0 - no monitoring, 1 - aggregate monitoring, 2 - individual monitoring due to constraint
UIGF	NUMBER(15,5)		For Semi-Scheduled units. Unconstrained Intermittent Generation Forecast value provided to NEMDE
RAISE1SEC	NUMBER(15,5)		Dispatched Raise1Sec - TraderSolution element R1Target attribute
RAISE1SECFLAGS	NUMBER(3,0)		TraderSolution element R1Flags attribute
LOWER1SEC	NUMBER(15,5)		Dispatched Lower1Sec - TraderSolution element L1Target attribute
LOWER1SECFLAGS	NUMBER(3,0)		TraderSolution element L1Flags attribute
RAISE1SECACTUALAVAILABILITY	NUMBER(16,6)		Trapezium adjusted Raise 1Sec Availability
LOWER1SECACTUALAVAILABILITY	NUMBER(16,6)		Trapezium adjusted Lower 1Sec Availability

7.5 Table: DISPATCHPRICE

Name	DISPATCHPRICE
Comment	DISPATCHPRICE records 5 minute dispatch prices for energy and FCAS, including whether an intervention has occurred, or price override (e.g. for Administered Price Cap). DISPATCHPRICE updates when price adjustments occur, in which case the new price is written to the RRP field, and the old price to the ROP field as an audit trail.

7.5.1 Description

Source

DISPATCHPRICE updates every 5 minutes.

Note

APCFLAG is a 5-bit Region-based field indicating that the original Dispatch Price (ROP) calculated by the Dispatch Algorithm for a region has undergone modification by one of more of the following processes:

Bit	Value	Description
5	16	Price Scaling via Inter-regional Loss Factor (IRLF)
4	8	Price manually overwritten
3	4	MPC or MPF binding (ROP was outside of MPC/MPF)
2	2	VoLL Override applied
1	1	APC or APF binding (ROP was outside of APC/APF)

Where:

- MPC = Market Price Cap
- MPF = Market Price Floor
- APC = Administered Price Cap
- APF = Administered Price Floor

xxxAPCFLAGs are each a 5-bit Region-based field indicating FCAS price post-processing (where "ROP" is the original NEMDE Solver price):

Bit	Cum Value	Description
5	16	Not applicable
4	8	Price manually overwritten
3	4	MPC ($VoLL) or MPF ($zero) binding (xxFCAS ROP was outside of MPC/MPF)
2	2	Not applicable
1	1	APC or APF binding (ROP was outside of APC/APF)

7.5.2 Primary Key Columns

Name

DISPATCHINTERVAL

INTERVENTION

REGIONID

RUNNO

SETTLEMENTDATE

7.5.3 Index Columns

Name

LASTCHANGED

7.5.4 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	VARCHAR2(22)	X	Dispatch interval identifier 001 to 288 in format YYYYMMDDPPP
INTERVENTION	NUMBER(2,0)	X	Manual intervention flag
RRP	NUMBER(15,5)		Regional Reference Price for this dispatch period. RRP is the price used to settle the market
EEP	NUMBER(15,5)		Excess energy price - no longer used
ROP	NUMBER(15,5)		Regional Override Price, being the original price prior to any price scaling, price capping or VoLL override being applied. The APC flag allows the determination of whether capping, scaling or override occurred
APCFLAG	NUMBER(3,0)		APC Active flag (see note)
MARKETSUSPENDEDFLAG	NUMBER(3,0)		Market suspended flag
LASTCHANGED	DATE		Last date and time record changed
RAISE6SECRRP	NUMBER(15,5)		

RAISE6SECROP	NUMBER(15,5)		
RAISE6SECAPCFLAG	NUMBER(3,0)		
RAISE60SECRRP	NUMBER(15,5)		
RAISE60SECROP	NUMBER(15,5)		
RAISE60SECAPCFLAG	NUMBER(3,0)		
RAISE5MINRRP	NUMBER(15,5)		
RAISE5MINROP	NUMBER(15,5)		
RAISE5MINAPCFLAG	NUMBER(3,0)		
RAISEREGRRP	NUMBER(15,5)		
RAISEREGROP	NUMBER(15,5)		
RAISEREGAPCFLAG	NUMBER(3,0)		
LOWER6SECRRP	NUMBER(15,5)		
LOWER6SECROP	NUMBER(15,5)		
LOWER6SECAPCFLAG	NUMBER(3,0)		
LOWER60SECRRP	NUMBER(15,5)		
LOWER60SECROP	NUMBER(15,5)		
LOWER60SECAPCFLAG	NUMBER(3,0)		
LOWER5MINRRP	NUMBER(15,5)		
LOWER5MINROP	NUMBER(15,5)		
LOWER5MINAPCFLAG	NUMBER(3,0)		
LOWERREGRRP	NUMBER(15,5)		
LOWERREGROP	NUMBER(15,5)		
LOWERREGAPCFLAG	NUMBER(3,0)		
PRICE_STATUS	VARCHAR2(20)		Status of regional prices for this dispatch interval "NOT FIRM" or "FIRM"
PRE_AP_ENERGY_PRICE	NUMBER(15,5)		Price before ap capping or scaling - for rolling sum price monitoring
PRE_AP_RAISE6_PRICE	NUMBER(15,5)		Price before ap capping or scaling - for

			rolling sum price monitoring
PRE_AP_RAISE60_PRICE	NUMBER(15,5)		Price before ap capping or scaling - for rolling sum price monitoring
PRE_AP_RAISE5MIN_PRICE	NUMBER(15,5)		Price before ap capping or scaling - for rolling sum price monitoring
PRE_AP_RAISEREG_PRICE	NUMBER(15,5)		Price before ap capping or scaling - for rolling sum price monitoring
PRE_AP_LOWER6_PRICE	NUMBER(15,5)		Price before ap capping or scaling - for rolling sum price monitoring
PRE_AP_LOWER60_PRICE	NUMBER(15,5)		Price before ap capping or scaling - for rolling sum price monitoring
PRE_AP_LOWER5MIN_PRICE	NUMBER(15,5)		Price before ap capping or scaling - for rolling sum price monitoring
PRE_AP_LOWERREG_PRICE	NUMBER(15,5)		Price before ap capping or scaling - for rolling sum price monitoring
CUMUL_PRE_AP_ENERGY_PRICE	NUMBER(15,5)		Cumulative price that triggers administered pricing event if above the threshold
CUMUL_PRE_AP_RAISE6_PRICE	NUMBER(15,5)		Cumulative price that triggers administered pricing event if above the threshold
CUMUL_PRE_AP_RAISE60_PRICE	NUMBER(15,5)		Cumulative price that triggers administered pricing event if above the threshold
CUMUL_PRE_AP_RAISE5MIN_PRICE	NUMBER(15,5)		Cumulative price that triggers administered pricing event if above the threshold
CUMUL_PRE_AP_RAISEREG_PRICE	NUMBER(15,5)		Cumulative price that triggers administered pricing event if above the threshold
CUMUL_PRE_AP_LOWER6_PRICE	NUMBER(15,5)		Cumulative price that triggers administered pricing event if above the threshold
CUMUL_PRE_AP_LOWER60_PRICE	NUMBER(15,5)		Cumulative price that triggers administered pricing event if above the threshold
CUMUL_PRE_AP_LOWER5MIN_PRICE	NUMBER(15,5)		Cumulative price that triggers administered pricing event if above the threshold

CUMUL_PRE_AP_LOWERREG_PRICE	NUMBER(15,5)		Cumulative price that triggers administered pricing event if above the threshold
OCD_STATUS	VARCHAR2(14)		Communicates the current OCD status for this dispatch interval. Values of: 'NOT_OCD', 'OCD_UNRESOLVED', 'OCD_RESOLVED'.
MII_STATUS	VARCHAR2(21)		Communicates the current MII status for this dispatch interval. Values of: 'NOT_MII', 'MII_SUBJECT_TO_REVIEW', 'MII_PRICE_REJECTED', 'MII_PRICE_ACCEPTED'.
RAISE1SECRRP	NUMBER(15,5)		Regional Raise 1Sec Price - R1Price attribute after capping/flooring
RAISE1SECROP	NUMBER(15,5)		Raise1Sec Regional Original Price - uncapped/unfloored and unscaled
RAISE1SECAPCFLAG	NUMBER(3,0)		BitFlag field for Price adjustments - "1" = Voll_Override; "4" = Floor_VoLL; "8" = Manual_Override; "16" = Price_Scaled
LOWER1SECRRP	NUMBER(15,5)		Regional Lower 1Sec Price - RegionSolution element L1Price attribute
LOWER1SECROP	NUMBER(15,5)		Lower1Sec Regional Original Price - uncapped/unfloored and unscaled
LOWER1SECAPCFLAG	NUMBER(3,0)		BitFlag field for Price adjustments - "1" = Voll_Override; "4" = Floor_VoLL; "8" = Manual_Override; "16" = Price_Scaled
PRE_AP_RAISE1_PRICE	NUMBER(15,5)		Price before AP capping or scaling - for Rolling Sum Price monitoring
PRE_AP_LOWER1_PRICE	NUMBER(15,5)		Price before AP capping or scaling - for Rolling Sum Price monitoring
CUMUL_PRE_AP_RAISE1_PRICE	NUMBER(15,5)		Cumulative price that triggers administered pricing event if above the threshold
CUMUL_PRE_AP_LOWER1_PRICE	NUMBER(15,5)		Cumulative price that triggers administered pricing event if above the threshold

7.6 Table: DISPATCHREGIONSUM

Name	DISPATCHREGIONSUM
Comment	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.

7.6.1 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).

7.6.2 Primary Key Columns

Name
DISPATCHINTERVAL
INTERVENTION
REGIONID
RUNNO
SETTLEMENTDATE

7.6.3 Index Columns

Name
LASTCHANGED

7.6.4 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_NONSCHEDGEN	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_CLEAREDMW	NUMBER(15,5)		Regional aggregated Semi-Schedule generator Cleared MW
SEMISCHEDULE_COMPLIANCEMW	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
WDR_INITIALMW	NUMBER(15,5)		Regional aggregated MW value at start of interval for Wholesale Demand Response (WDR) units
WDR_AVAILABLE	NUMBER(15,5)		Regional aggregated available MW for Wholesale Demand Response (WDR) units
WDR_DISPATCHED	NUMBER(15,5)		Regional aggregated dispatched MW for Wholesale Demand Response (WDR) units
SS_SOLAR_AVAILABILITY	NUMBER(15,5)		For Semi-Scheduled units. Aggregate Energy Availability from Solar units in that region
SS_WIND_AVAILABILITY	NUMBER(15,5)		For Semi-Scheduled units. Aggregate Energy Availability from Wind units in that region
RAISE1SECLOCALDISPATCH	NUMBER(15,5)		Total Raise1Sec Dispatched in Region - RegionSolution element R1Dispatch attribute
LOWER1SECLOCALDISPATCH	NUMBER(15,5)		Total Lower1Sec Dispatched in Region - RegionSolution element L1Dispatch attribute
RAISE1SECACTUALAVAILABILITY	NUMBER(16,6)		Trapezium adjusted Raise1Sec availability (summated from UnitSolution)
LOWER1SECACTUALAVAILABILITY	NUMBER(16,6)		Trapezium adjusted Lower1Sec availability (summated from UnitSolution)

8 Package: FORCE_MAJEURE

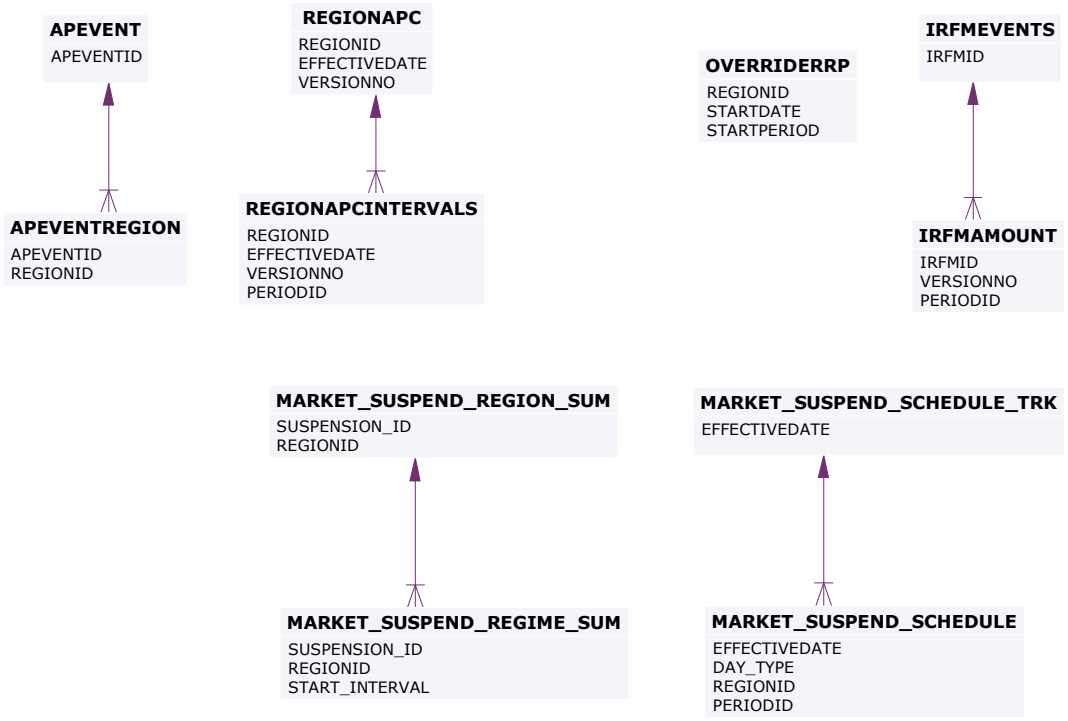
Name FORCE_MAJEURE

Comment Market Suspensions and administer pricing event data

8.1 List of tables

Name	Comment
APEVENTREGION	APEVENTREGION is the Region detail for an administered pricing event defined through APEVENT.
MARKET_SUSPEND_SCHEDULE	Trading prices that will apply in the event of a market suspension event updated weekly.

8.2 Diagram: Entities: Force Majeure



8.3 Table: APEVENTREGION

Name APEVENTREGION

Comment APEVENTREGION is the Region detail for an administered pricing event defined through APEVENT.

8.3.1 Primary Key Columns

Name

APEVENTID

REGIONID

8.3.2 Index Columns

Name

LASTCHANGED

8.3.3 Content

Name	Data Type	Mandatory	Comment
APEVENTID	NUMBER(22,0)	X	Unique identifier for this administered pricing event
REGIONID	VARCHAR2(10)	X	Date-Time of the first Dispatch Interval to which the administered event applies
LASTCHANGED	DATE		Date Time of the final Dispatch Interval to which the administered event applies
ENERGYAPFLAG	NUMBER(1,0)		flag indicating if the apevent covers an energy AP
RAISE6SECAPFLAG	NUMBER(1,0)		flag indicating if the apevent covers a raise6sec AP
RAISE60SECAPFLAG	NUMBER(1,0)		flag indicating if the apevent covers a raise60sec AP
RAISE5MINAPFLAG	NUMBER(1,0)		flag indicating if the apevent covers a raise5min AP

RAISEREGAPFLAG	NUMBER(1,0)		flag indicating if the apevent covers a raisereg AP
LOWER6SECAPFLAG	NUMBER(1,0)		flag indicating if the apevent covers a lower6sec AP
LOWER60SECAPFLAG	NUMBER(1,0)		flag indicating if the apevent covers a lower60sec AP flag indicating if the apevent covers a lower5min AP flag indicating if the apevent covers a lowerreg AP flag indicating if the apevent covers a lower60sec AP
LOWER5MINAPFLAG	NUMBER(1,0)		flag indicating if the apevent covers a lower5min AP
LOWERREGAPFLAG	NUMBER(1,0)		flag indicating if the apevent covers a lowerreg AP
RAISE1SECAPFLAG	NUMBER(3,0)		Flag indicating if the APEvent covers a Raise1Sec AP
LOWER1SECAPFLAG	NUMBER(3,0)		Flag indicating if the APEvent covers a Lower1Sec AP

8.4 Table: MARKET_SUSPEND_SCHEDULE

Name	MARKET_SUSPEND_SCHEDULE
Comment	Trading prices that will apply in the event of a market suspension event updated weekly.

8.4.1 Description

MARKET_SUSPEND_SCHEDULE is public data, so is available to all participants.

8.4.2 Primary Key Columns

Name

DAY_TYPE

EFFECTIVEDATE

PERIODID

REGIONID

8.4.3 Content

Name	Data Type	Mandatory	Comment
EFFECTIVEDATE	DATE	X	Calendar date from when this record set is effective
DAY_TYPE	VARCHAR2(20)	X	Distinguishes which record set to apply - at time of writing this was Business or Non-business day but may change in the future depending on outcome of consultation
REGIONID	VARCHAR2(20)	X	Region affected.
PERIODID	NUMBER(3,0)	X	48 intervals for a day, midnight base (equates to 00:30 - 00:00)
ENERGY_RRP	NUMBER(15,5)		Energy Price applied for this period for this Day Type
R6_RRP	NUMBER(15,5)		Raise 6Sec contingency Price applied for this period for this Day Type

R60_RRP	NUMBER(15,5)		Raise 60Sec contingency Price applied for this period for this Day Type
R5_RRP	NUMBER(15,5)		Raise 5Min contingency Price applied for this period for this Day Type
RREG_RRP	NUMBER(15,5)		Raise Regulation contingency Price applied for this period for this Day Type
L6_RRP	NUMBER(15,5)		Lower 6Sec contingency Price applied for this period for this Day Type
L60_RRP	NUMBER(15,5)		Lower 60Sec contingency Price applied for this period for this Day Type
L5_RRP	NUMBER(15,5)		Lower 5Min contingency Price applied for this period for this Day Type
LREG_RRP	NUMBER(15,5)		Lower Regulation Price applied for this period for this Day Type
LASTCHANGED	DATE		Last date and time record changed
L1_RRP	NUMBER(15,5)		Lower 1Sec contingency Price applied for this period for this Day Type
R1_RRP	NUMBER(15,5)		Raise 1Sec contingency Price applied for this period for this Day Type

9 Package: METER_DATA

Name METER_DATA

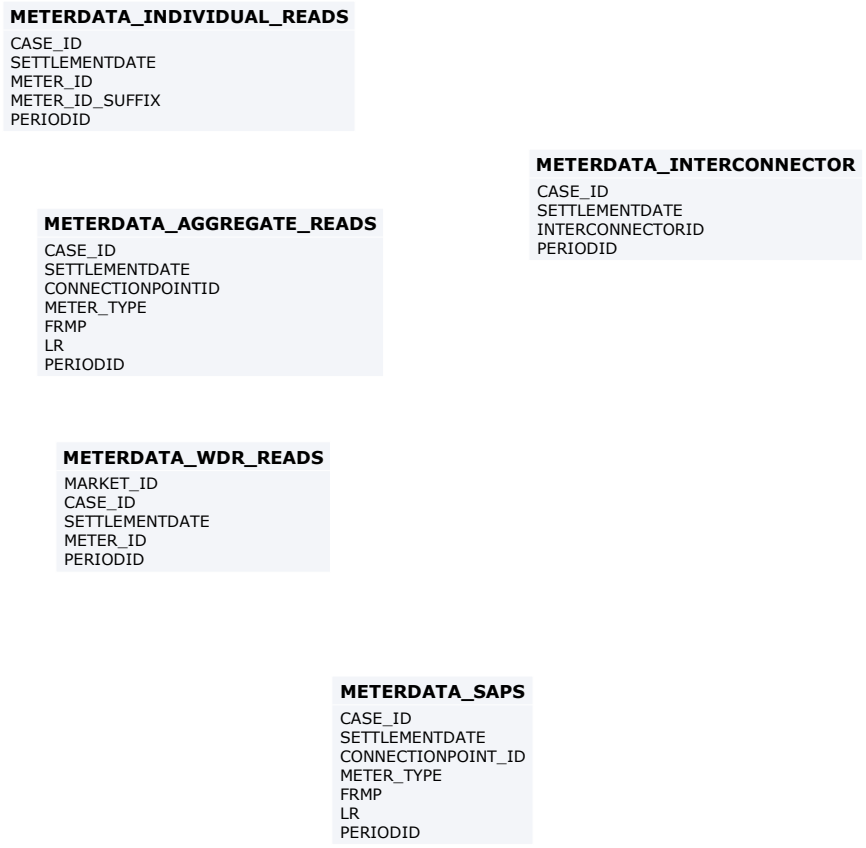
Comment Wholesale market aggregated Meter data

9.1 List of tables

Name	Comment
METERDATA_SAPS	The SAPS Meter data for MSRP and Retailer used in the Settlement Calculation

9.2 Diagram: Entities: Meter Data

Note: Include MDA = MeteringDataAgent in any join



9.3 Table: METERDATA_SAPS

Name METERDATA_SAPS

Comment The SAPS Meter data for MSRP and Retailer used in the Settlement Calculation

9.3.1 Primary Key Columns

Name

CASE_ID

CONNECTIONPOINT_ID

FRMP

LR

METER_TYPE

PERIODID

SETTLEMENTDATE

9.3.2 Content

Name	Data Type	Mandatory	Comment
CASE_ID	NUMBER(15,0)	X	The Metering Case ID used for Settlements
SETTLEMENTDATE	DATE	X	The Settlement Date for that Week
CONNECTIONPOINT_ID	VARCHAR2(20)	X	The SAPS Connection Point Id
METER_TYPE	VARCHAR2(20)	X	The Meter Type Identifier , CUSTOMER or MSRP
FRMP	VARCHAR2(20)	X	The Financial Responsible Market Participant
LR	VARCHAR2(20)	X	The Local Retailer
PERIODID	NUMBER(4,0)	X	The Period ID Identifier
IMPORTVALUE	NUMBER(18,8)		The Sent Out Energy in MWh

EXPORTVALUE	NUMBER(18,8)		The Consumed Energy in MWh
LASTCHANGED	DATE		The Date time of the record last updated or inserted.

10 Package: MTPASA

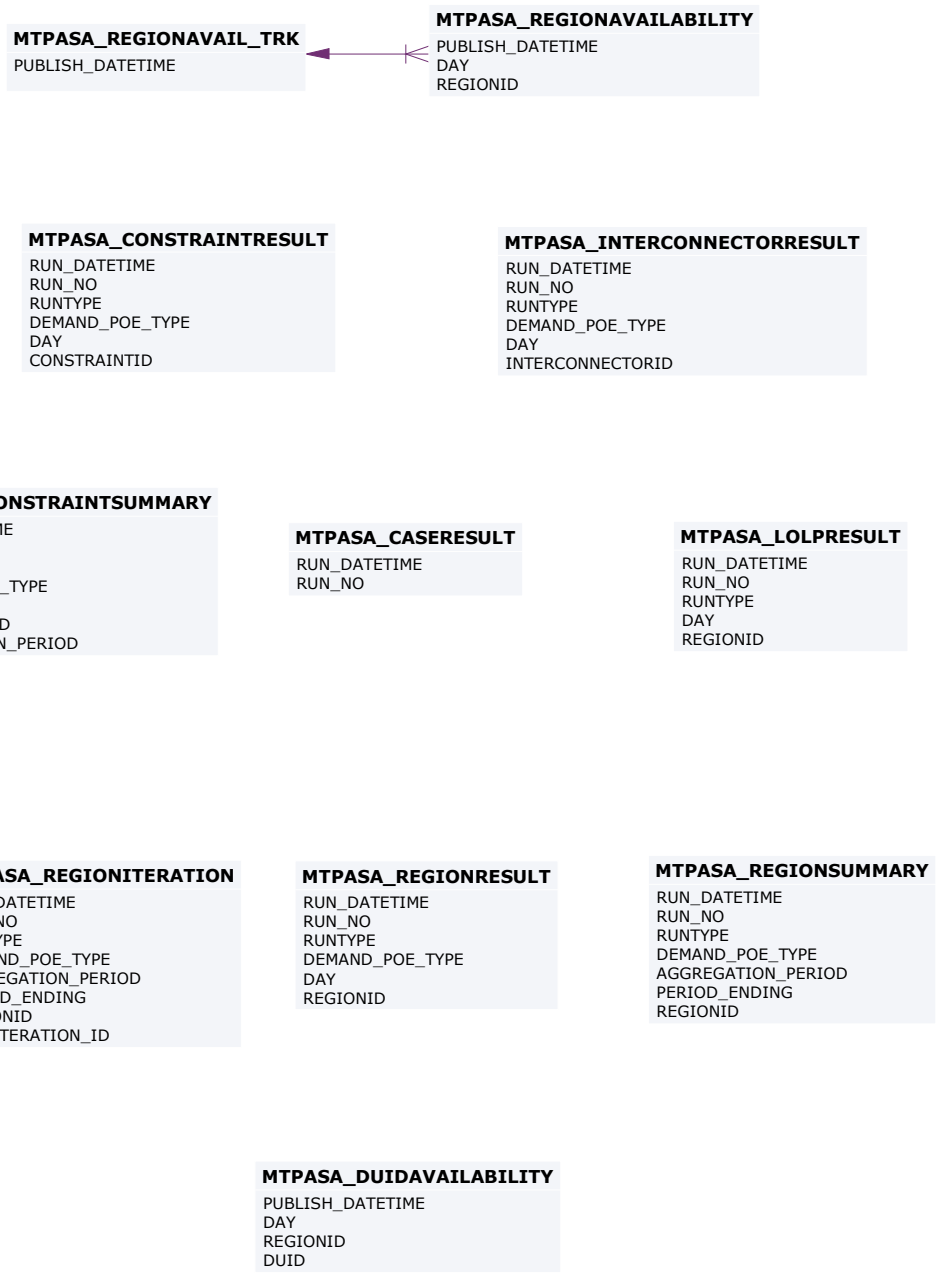
Name MTPASA

Comment Results from a published Medium Term PASA Run and region-aggregate offered PASA Availability of scheduled generators

10.1 List of tables

Name	Comment
MTPASA_DUIDAVAILABILITY	Offered PASA Availability of the scheduled generator DUID for each day over the Medium Term PASA period. The data in this table is input data to the MT PASA process it is not part of the MTPASA solution. The availability does not reflect any energy limitations in the MT PASA offers

10.2 Diagram: Entities: MT PASA



10.3 Table: MTPASA_DUIDAVAILABILITY

Name MTPASA_DUIDAVAILABILITY

Comment Offered PASA Availability of the scheduled generator DUID for each day over the Medium Term PASA period. The data in this table is input data to the MT PASA process it is not part of the MTPASA solution. The availability does not reflect any energy limitations in the MT PASA offers

10.3.1 Primary Key Columns

Name

DAY

DUID

PUBLISH_DATETIME

REGIONID

10.3.2 Content

Name	Data Type	Mandatory	Comment
PUBLISH_DATETIME	DATE	X	Date Time the report was published.
DAY	DATE	X	Date on which the PASA availability of DUID applies.
REGIONID	VARCHAR2(20)	X	NEM Region.
DUID	VARCHAR2(20)	X	NEM DUID.
PASAAVAILABILITY	NUMBER(12,0)		Offered PASA Availability of Scheduled generator DUID for the day.
LATEST_OFFER_DATETIME	DATE		Date Time of the latest offer used for DUID for this date.
LASTCHANGED	DATE		Last date and time record changed
CARRYOVERSTATUS	NUMBER(1,0)		Status of a reported capacity value (e.g. 1 for Yes, 0 for No)
PASAUNITSTATE	VARCHAR2(20)		The unit state value

PASARECALLTIME	NUMBER(4)		The recall time value

11 Package: P5MIN

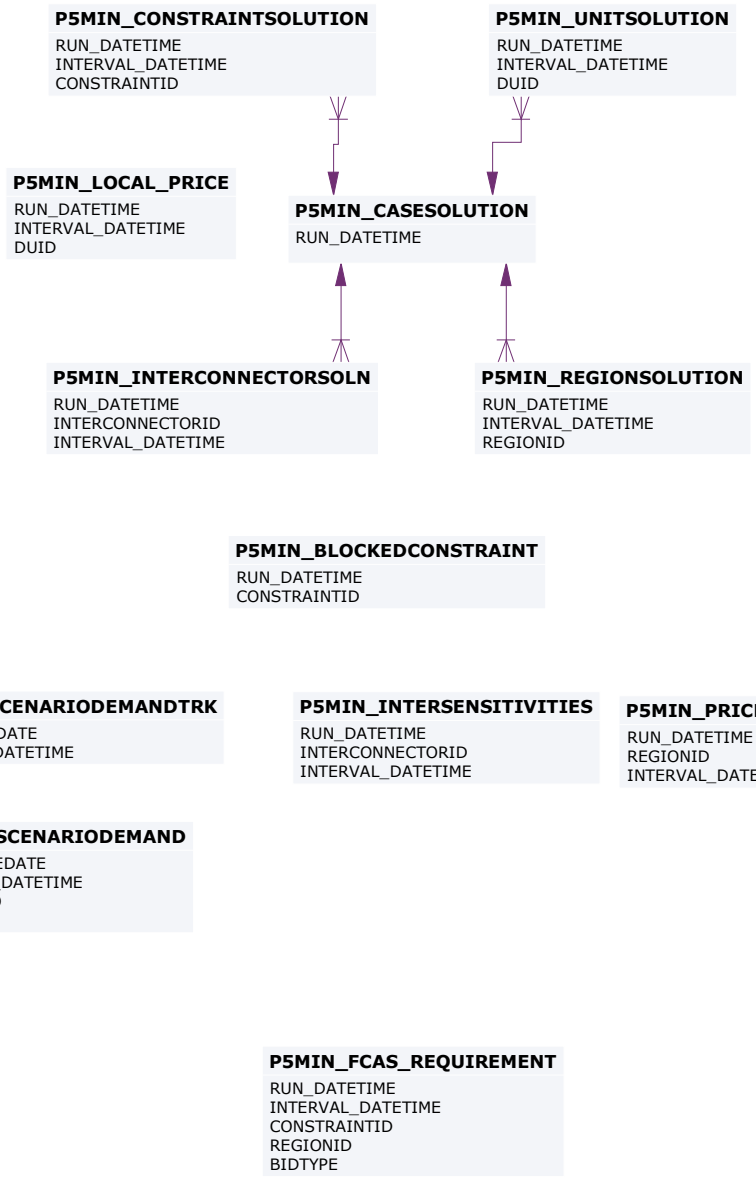
Name P5MIN

Comment Results from a published Five-Minute Predispatch Run

11.1 List of tables

Name	Comment
P5MIN_FCAS_REQUIREMENT	5-minute Predispatch constraint tracking for Regional FCAS recovery
P5MIN_REGIONSOLUTION	The five-minute predispatch (P5Min) is a MMS system providing projected dispatch for 12 Dispatch cycles (one hour). The 5-minute Predispatch 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. P5MIN_REGIONSOLUTION shows the results of the regional capacity, maximum surplus reserve and maximum spare capacity evaluations for each period of the study.
P5MIN_UNITSOLUTION	The five-minute predispatch (P5Min) is a MMS system providing projected dispatch for 12 Dispatch cycles (one hour). The 5-minute Predispatch 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. P5MIN_UNITSOLUTION shows the Unit results from the capacity evaluations for each period of the study.

11.2 Diagram: Entities: P5MIN



11.3 Table: P5MIN_FCAS_REQUIREMENT

Name P5MIN_FCAS_REQUIREMENT

Comment 5-minute Predispatch constraint tracking for Regional FCAS recovery

11.3.1 Primary Key Columns

Name

BIDTYPE

CONSTRAINTID

INTERVAL_DATETIME

REGIONID

RUN_DATETIME

11.3.2 Content

Name	Data Type	Mandatory	Comment
RUN_DATETIME	DATE	X	First interval of the 5-minute Predispatch case
INTERVAL_DATETIME	DATE	X	Datetime of the 5-minute Predispatch interval
CONSTRAINTID	VARCHAR2(20)	X	ConstraintID Join to table GenConData
REGIONID	VARCHAR2(20)	X	Region Identifier
BIDTYPE	VARCHAR2(10)	X	DUID offered type
INTERVENTION	NUMBER(2,0)		Intervention flag
CONSTRAINT_EFFECTIVEDATE	DATE		Constraint EffectiveDate Join to table GenConData
CONSTRAINT_VERSIONNO	NUMBER(3,0)		Constraint Version number Join to table GenConData
MARGINALVALUE	NUMBER(18,8)		Marginal $ value for energy
BASE_COST	NUMBER(18,8)		The base cost of the constraint for this

			service, before the regulation/contingency split
ADJUSTED_COST	NUMBER(18,8)		The adjusted cost of the constraint for this service, after the regulation/contingency split
ESTIMATED_CMPF	NUMBER(18,8)		An estimated value for the constraint CMPF, based on 5- minute Predispatch data
ESTIMATED_CRMPF	NUMBER(18,8)		An estimated value for the constraint CRMPF, based on 5-minute Predispatch data
RECOVERY_FACTOR_CMPF	NUMBER(18,8)		Estimated recovery factor for CMPF based recovery
RECOVERY_FACTOR_CRMPF	NUMBER(18,8)		Estimated recovery for CRMPF based recovery
LASTCHANGED	DATE		Last changed date for the record

11.4 Table: P5MIN_REGIONSOLUTION

Name	P5MIN_REGIONSOLUTION
Comment	The five-minute predispatch (P5Min) is a MMS system providing projected dispatch for 12 Dispatch cycles (one hour). The 5-minute Predispatch 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. P5MIN_REGIONSOLUTION shows the results of the regional capacity, maximum surplus reserve and maximum spare capacity evaluations for each period of the study.

11.4.1 Description

P5MIN_REGIONSOLUTION is public data, so is available to all participants.

Source

P5MIN_REGIONSOLUTION updates every 5 minutes.

Volume

Rows per day: 1440

11.4.2 Primary Key Columns

Name

INTERVAL_DATETIME

REGIONID

RUN_DATETIME

11.4.3 Index Columns

Name

LASTCHANGED

11.4.4 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_NONSCHEDGEN	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_CLEAREDMW	NUMBER(15,5)		Regional aggregated Semi-Schedule generator Cleared MW
SEMISCHEDULE_COMPLIANCEMW	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
WDR_INITIALMW	NUMBER(15,5)		Regional aggregated MW value at start of interval for Wholesale Demand Response (WDR) units
WDR_AVAILABLE	NUMBER(15,5)		Regional aggregated available MW for Wholesale Demand Response (WDR) units
WDR_DISPATCHED	NUMBER(15,5)		Regional aggregated dispatched MW for Wholesale Demand Response (WDR) units
SS_SOLAR_AVAILABILITY	NUMBER(15,5)		For Semi-Scheduled units. Aggregate Energy Availability from Solar units in that region
SS_WIND_AVAILABILITY	NUMBER(15,5)		For Semi-Scheduled units. Aggregate Energy Availability from Wind units in that region
RAISE1SECRRP	NUMBER(15,5)		Regional Raise 1Sec Price - R1Price attribute after capping/flooring
RAISE1SECROP	NUMBER(15,5)		Raise1Sec Regional Original Price - uncapped/unfloored and unscaled

LOWER1SECRRP	NUMBER(15,5)		Regional Lower 1Sec Price - RegionSolution element L1Price attribute
LOWER1SECROP	NUMBER(15,5)		Lower1Sec Regional Original Price - uncapped/unfloored and unscaled
RAISE1SECLOCALDISPATCH	NUMBER(15,5)		Total Raise1Sec Dispatched in Region - RegionSolution element R1Dispatch attribute
LOWER1SECLOCALDISPATCH	NUMBER(15,5)		Total Lower1Sec Dispatched in Region - RegionSolution element L1Dispatch attribute

11.5 Table: P5MIN_UNITSOLUTION

Name	P5MIN_UNITSOLUTION
Comment	The five-minute predispatch (P5Min) is a MMS system providing projected dispatch for 12 Dispatch cycles (one hour). The 5-minute Predispatch 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. P5MIN_UNITSOLUTION shows the Unit results from the capacity evaluations for each period of the study.

11.5.1 Description

P5MIN_UNITSOLUTION data is confidential, so shows own details for participant.

Source

P5MIN_UNITSOLUTION updates every 5 minutes for all units, even zero targets.

Volume

Rows per day: 57600

Based on 200 units per Interval

Note

A bitwise flag exists for each ancillary service type such that a unit trapped or stranded in one or more service type can be immediately identified. The SPD Formulation document details the logic determining whether a unit is "trapped" or "stranded". The flag is defined as follows:

Flagged Condition	Bit	Description	Field value
FCAS profile active	0	The bid profile for this service has been activated such that the unit is available to be cleared to provide this ancillary service type.	1 or 3
Trapped	1	The unit is enabled to provide this ancillary service type, however the profile for this service type is causing the unit to be trapped in the energy market.	3
Stranded	2	The unit is bid available to provide this ancillary service type, however, the unit is operating in the energy market outside of the profile for this service type and is stranded from providing this service.	4

11.5.2 Primary Key Columns

Name

DUID

INTERVAL_DATETIME

RUN_DATETIME

11.5.3 Index Columns

Name

LASTCHANGED

11.5.4 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
DUID	VARCHAR2(10)	X	Dispatchable unit identifier
CONNECTIONPOINTID	VARCHAR2(12)		Connection point identifier for DUID
TRADETYPE	NUMBER(2,0)		Generator or Load
AGCSTATUS	NUMBER(2,0)		AGC Status from EMS: 1 = on, 0 = off
INITIALMW	NUMBER(15,5)		Initial MW at start of period. For periods subsequent to the first period of a P5MIN run, this value represents the cleared target for the previous period of that P5MIN run.
TOTALCLEARED	NUMBER(15,5)		Target MW for end of period
RAMPDOWNRATE	NUMBER(15,5)		Ramp down rate (lessor of bid or telemetered rate).
RAMPUPRATE	NUMBER(15,5)		Ramp up rate (lessor of bid or telemetered rate).
LOWER5MIN	NUMBER(15,5)		Lower 5 min reserve target
LOWER60SEC	NUMBER(15,5)		Lower 60 sec reserve target
LOWER6SEC	NUMBER(15,5)		Lower 6 sec reserve target
RAISE5MIN	NUMBER(15,5)		Raise 5 min reserve target
RAISE60SEC	NUMBER(15,5)		Raise 60 sec reserve target
RAISE6SEC	NUMBER(15,5)		Raise 6 sec reserve target
LOWERREG	NUMBER(15,5)		Lower Regulation reserve target

RAISEREG	NUMBER(15,5)		Raise Regulation reserve target
AVAILABILITY	NUMBER(15,5)		For Scheduled units, this is the MAXAVAIL bid availability For Semi-scheduled units, this is the lower of MAXAVAIL bid availability and UIGF
RAISE6SECFLAGS	NUMBER(3,0)		Raise 6sec status flag
RAISE60SECFLAGS	NUMBER(3,0)		Raise 60sec status flag
RAISE5MINFLAGS	NUMBER(3,0)		Raise 5min status flag
RAISEREGFLAGS	NUMBER(3,0)		Raise Reg status flag
LOWER6SECFLAGS	NUMBER(3,0)		Lower 6sec status flag
LOWER60SECFLAGS	NUMBER(3,0)		Lower 60sec status flag
LOWER5MINFLAGS	NUMBER(3,0)		Lower 5min status flag
LOWERREGFLAGS	NUMBER(3,0)		Lower Reg status flag
LASTCHANGED	DATE		Last date and time record changed
SEMIDISPATCHCAP	NUMBER(3,0)		Boolean representation flagging if the Target is Capped
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
DISPATCHMODETIME	NUMBER(4,0)		Minutes for which the unit has been in the current DISPATCHMODE. From NEMDE TRADERSOLUTION element FSTARGETMODETIME attribute.
CONFORMANCE_MODE	NUMBER(6,0)		Mode specific to units within an aggregate. 0 - no monitoring, 1 - aggregate monitoring, 2 - individual monitoring due to constraint
UIGF	NUMBER(15,5)		For Semi-Scheduled units. Unconstrained Intermittent Generation Forecast value provided to NEMDE
RAISE1SEC	NUMBER(15,5)		Dispatched Raise1Sec - TraderSolution element R1Target attribute

RAISE1SECFLAGS	NUMBER(3,0)		TraderSolution element R1Flags attribute
LOWER1SEC	NUMBER(15,5)		Dispatched Lower1Sec - TraderSolution element L1Target attribute
LOWER1SECFLAGS	NUMBER(3,0)		TraderSolution element L1Flags attribute

12 Package: PARTICIPANT_REGISTRATION

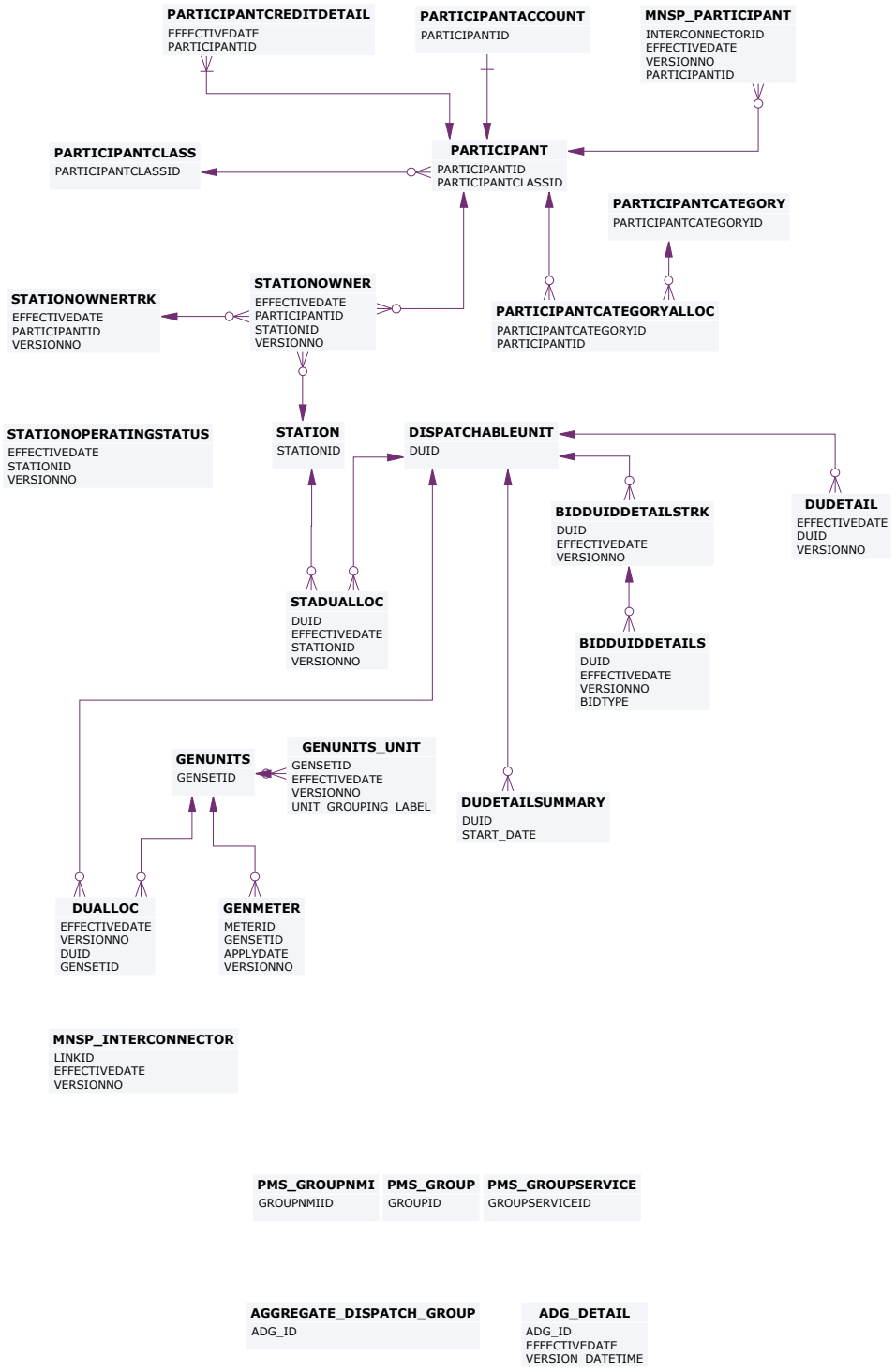
Name PARTICIPANT_REGISTRATION

Comment Participant registration data

12.1 List of tables

Name	Comment
ADG_DETAIL	Table for tracking evolving Aggregate Dispatch Group attributes
AGGREGATE_DISPATCH_GROUP	Entity allowing for compliance monitoring over grouped DUIDs
DUDETAIL	DUDETAIL sets out a records specific details for each unit including start type and whether normally on or off load. Much of this data is information only and is not used in dispatch or settlements.
DUDETAILSUMMARY	DUDETAILSUMMARY sets out a single summary unit table so reducing the need for participants to use the various dispatchable unit detail and owner tables to establish generating unit specific details.

12.2 Diagram: Entities: Participant Registration



12.3 Table: ADG_DETAIL

Name ADG_DETAIL

Comment Table for tracking evolving Aggregate Dispatch Group attributes

12.3.1 Primary Key Columns

Name

ADG_ID

EFFECTIVEDATE

VERSION_DATETIME

12.3.2 Content

Name	Data Type	Mandatory	Comment
ADG_ID	VARCHAR2(20)	X	Identifies the Aggregate Dispatch Group
EFFECTIVEDATE	DATE	X	Effective calendar date of record
VERSION_DATETIME	DATE	X	Date and time of the version of Dispatchable Unit details
ADG_TYPE	VARCHAR2(20)		Conformance Type for the Aggregate Dispatch Group. One of the following: CAP, MIXED, TARGET
AUTHORISEDDATE	DATE		Date record authorised
AUTHORISEDBY	VARCHAR2(15)		User authorising record
LASTCHANGED	DATE		Last date and time record changed

12.4 Table: AGGREGATE_DISPATCH_GROUP

Name AGGREGATE_DISPATCH_GROUP

Comment Entity allowing for compliance monitoring over grouped DUIDs

12.4.1 Primary Key Columns

Name

ADG_ID

12.4.2 Content

Name	Data Type	Mandatory	Comment
ADG_ID	VARCHAR2(20)	X	Aggregate Dispatch Group ID
COMMENTS	VARCHAR2(100)		A participant provided comment
LASTCHANGED	DATE		Last date and time record changed

12.5 Table: DUDETAIL

Name	DUDETAIL
Comment	DUDETAIL sets out a records specific details for each unit including start type and whether normally on or off load. Much of this data is information only and is not used in dispatch or settlements.

12.5.1 Description

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

Source

DUDETAIL updates only when registration details change.

Note

To find the current set of details for selected dispatchable units, query the participant's local database as follows.

```
Select du.* from dudetail du
where (du.EFFECTIVEDATE, du.VERSIONNO) =
(
select effectivedate, max(versionno)
from dudetail
where EFFECTIVEDATE = (select max(effectivedate)
from  dudetail
where EFFECTIVEDATE <= sysdate
and duid = du.duid
and authoriseddate is not null)
and duid = du.duid
and authoriseddate is not null
group by effectivedate
)
and du.duid in ('UNIT1', 'UNIT2')
;
```

The following notes apply to this SQL code:

- This table is specific to dispatch units only.
- If you wish to query details for a different date, substitute a date expression for "sysdate" in the "where EFFECTIVEDATE <= sysdate" clause.
- If you wish to list all the units, remove the line "and du.duid in ('UNIT1', 'UNIT2')"
- The DUDETAIL table does not indicate if a unit is active; this is done through ownership (STADUALLOC) by an active station owned by an active participant (STATIONOWNER)
- If you wish to query Station details refer to STATION, STATIONOWNER and STADUALLOC.
- If you wish to look at connection point loss factors, refer to TRANSMISSIONLOSSFACTOR.

12.5.2 Primary Key Columns

Name

DUID

EFFECTIVEDATE

VERSIONNO

12.5.3 Index Columns

Name

LASTCHANGED

12.5.4 Content

Name	Data Type	Mandatory	Comment
EFFECTIVEDATE	DATE	X	Effective calendar date of record
DUID	VARCHAR2(10)	X	Dispatchable Unit Identifier
VERSIONNO	NUMBER(3,0)	X	version of Dispatchable Unit details for this effective date
CONNECTIONPOINTID	VARCHAR2(10)		Country wide - Unique id of a connection point
VOLTLEVEL	VARCHAR2(10)		Voltage Level
REGISTEREDCAPACITY	NUMBER(6,0)		Registered capacity for normal operations
AGCCAPABILITY	VARCHAR2(1)		AGC Capability flag
DISPATCHTYPE	VARCHAR2(20)		Identifies LOAD or GENERATOR. This will likely expand to more generic models as new technology types are integrated into the NEM
MAXCAPACITY	NUMBER(6,0)		Maximum Capacity as used for bid validation
STARTTYPE	VARCHAR2(20)		Identify unit as Fast or Slow
NORMALLYONFLAG	VARCHAR2(1)		For a dispatchable load indicates that the load is normally on or off.

PHYSICALDETAILSFLAG	VARCHAR2(1)		Indicates that the physical details for this unit are to be recorded
SPINNINGRESERVEFLAG	VARCHAR2(1)		Indicates spinning reserve capability
AUTHORISEDBY	VARCHAR2(15)		User authorising record
AUTHORISEDDATE	DATE		Date record authorised
LASTCHANGED	DATE		Last date and time record changed
INTERMITTENTFLAG	VARCHAR(1)		Indicate whether a unit is intermittent (e.g. a wind farm)
SemiSchedule_Flag	VARCHAR2(1)		Indicates if the DUID is a Semi-Scheduled Unit
MAXRATEOFCHANGEUP	Number(6,0)		Maximum ramp up rate for Unit (Mw/min)
MAXRATEOFCHANGEDOWN	Number(6,0)		Maximum ramp down rate for Unit (Mw/min)
DISPATCHSUBTYPE	VARCHAR2(20)		Additional information for DISPATCHTYPE. For DISPATCHTYPE = LOAD, subtype value is WDR for wholesale demand response units. For DISPATCHTYPE = LOAD, subtype value is NULL for Scheduled Loads. For DISPATCHTYPE = GENERATOR type, the subtype value is NULL.
ADG_ID	VARCHAR2(20)		Aggregate Dispatch Group to which this dispatch unit belongs

12.6 Table: DUDETAILSUMMARY

Name	DUDETAILSUMMARY
Comment	DUDETAILSUMMARY sets out a single summary unit table so reducing the need for participants to use the various dispatchable unit detail and owner tables to establish generating unit specific details.

12.6.1 Description

DUDETAILSUMMARY is a public table, and is available to all participants.

Source

DUDETAILSUMMARY updates only when registration details change.

12.6.2 Primary Key Columns

Name

DUID

START_DATE

12.6.3 Index Columns

Name

LASTCHANGED

12.6.4 Content

Name	Data Type	Mandatory	Comment
DUID	VARCHAR2(10)	X	Dispatchable Unit Identifier
START_DATE	DATE	X	Start date for effective record
END_DATE	DATE	X	End date for effective record
DISPATCHTYPE	VARCHAR2(20)		Identifies LOAD or GENERATOR. This will likely expand to more generic models as new technology types are integrated into the NEM

CONNECTIONPOINTID	VARCHAR2(10)		Country wide - Unique id of a connection point
REGIONID	VARCHAR2(10)		Region identifier that unit is in
STATIONID	VARCHAR2(10)		Station that unit is in
PARTICIPANTID	VARCHAR2(10)		Participant that owns unit during effective record period
LASTCHANGED	DATE		Last date and time record changed
TRANSMISSIONLOSSFACTOR	NUMBER(15,5)		The transmission level loss factor for currently assigned connection point
STARTTYPE	VARCHAR2(20)		Unit start type. At this time restricted to Fast, Slow or Non Dispatched
DISTRIBUTIONLOSSFACTOR	NUMBER(15,5)		The distribution loss factor to the currently assigned connection point
MINIMUM_ENERGY_PRICE	NUMBER(9,2)		Floored Offer/Bid Energy Price adjusted for TLF, DLF and MPF
MAXIMUM_ENERGY_PRICE	NUMBER(9,2)		Capped Offer/Bid Energy Price adjusted for TLF, DLF and VoLL
SCHEDULE_TYPE	VARCHAR2(20)		Scheduled status of the unit: 'SCHEDULED' 'NON-SCHEDULED' 'SEMI-SCHEDULED'
MIN_RAMP_RATE_UP	number(6,0)		MW/Min. Calculated Minimum Ramp Rate Up value accepted for Energy Offers or Bids with explanation
MIN_RAMP_RATE_DOWN	number(6,0)		MW/Min. Calculated Minimum Ramp Rate Down value accepted for Energy Offers or Bids with explanation
MAX_RAMP_RATE_UP	number(6,0)		Maximum ramp up rate for Unit (Mw/min) - from DUDetail table
MAX_RAMP_RATE_DOWN	number(6,0)		Maximum ramp down rate for Unit (Mw/min) - from DUDetail table
IS_AGGREGATED	NUMBER(1,0)		Whether the DUID is classified as an "Aggregated Unit" under the rules. This impacts the Minimum Ramp Rate calculation
DISPATCHSUBTYPE	VARCHAR2(20)		Additional information for

			DISPATCHTYPE. For DISPATCHTYPE = LOAD, subtype value is WDR for wholesale demand response units For DISPATCHTYPE = LOAD, subtype value is NULL for Scheduled Loads. For DISPATCHTYPE = GENERATOR type, subtype value is NULL.
ADG_ID	VARCHAR2(20)		Aggregate Dispatch Group to which this dispatch unit belongs.

13 Package: PRE_DISPATCH

Name PRE_DISPATCH

Comment 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.

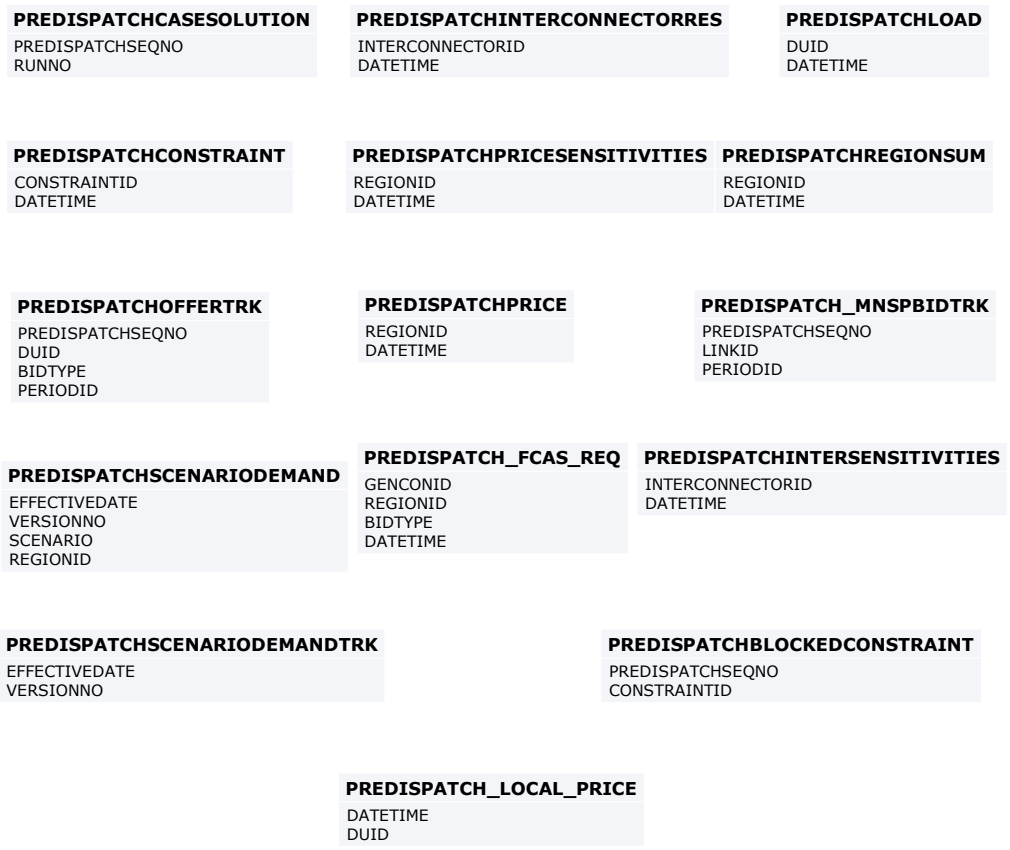
The TRANSACTION_TYPE default in the PDR_REPORT_RECORDS management tables for PREDISPATCH* tables is UPDATE-INSERT. You can modify this to INSERT for Option 2b, as the attempt to first perform an update becomes redundant. This can improve load performance.

13.1 List of tables

Name	Comment
PREDISPATCHLOAD	PREDISPATCHLOAD shows pre-dispatch targets for each dispatchable unit, including additional fields to handle the Ancillary Services functionality. No record is written where a unit is not

	dispatched. PREDISPATCHLOAD shows all the results for each period.
PREDISPATCHPRICE	PREDISPATCHPRICE records predispatch prices for each region by period for each predispatch run, including fields to handle the Ancillary Services functionality.
PREDISPATCHREGIONSUM	PREDISPATCHREGIONSUM sets out the overall regional Pre-Dispatch results for base case details (excluding price).

13.2 Diagram: Entities: Predispatch



13.3 Table: PREDISPATCHLOAD

Name	PREDISPATCHLOAD
Comment	PREDISPATCHLOAD shows pre-dispatch targets for each dispatchable unit, including additional fields to handle the Ancillary Services functionality. No record is written where a unit is not dispatched. PREDISPATCHLOAD shows all the results for each period.

13.3.1 Description

Source

Own (confidential) data updates every thirty minutes, with whole market data for the day before available as part of next day market data.

Note

** A flag exists for each ancillary service type such that a unit trapped or stranded in one or more service type can be immediately identified. The flag is defined using the low 3 bits as follows:

Flag Name	Bit	Description
Enabled	0	The unit is enabled to provide this ancillary service type.
Trapped	1	The unit is enabled to provide this ancillary service type, however the profile for this service type is causing the unit to be trapped in the energy market.
Stranded	2	The unit is bid available to provide this ancillary service type, however, the unit is operating in the energy market outside of the profile for this service type and is stranded from providing this service.

Interpretation of the bit-flags as a number gives the following possibilities (i.e. other combinations are not possible):

Numeric Value	Bit (2,1,0)	Meaning
0	000	Not stranded, not trapped, not enabled.
1	001	Not stranded, not trapped, is enabled.
3	011	Not stranded, is trapped, is enabled.
4	100	Is stranded, not trapped, not enabled.

For example, testing for availability can be done by checking for odd (=available) or even (=unavailable) number (e.g. `mod(flag,2)` results in 0 for unavailable and 1 for available).

*** "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.

13.3.2 Primary Key Columns

Name

DATETIME

DUID

13.3.3 Index Columns

Name

LASTCHANGED

13.3.4 Index Columns

Name

DUID

LASTCHANGED

13.3.5 Index Columns

Name

PREDISPATCHSEQNO

13.3.6 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)		SPD Predispatch run no, typically 1. It increments if the case is re-run.
DUID	VARCHAR2(10)	X	Dispatchable unit identifier for fast start
TRADETYPE	NUMBER(2,0)		Not used
PERIODID	VARCHAR2(20)		PERIODID is just a period count, starting from 1 for each predispatch 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
CONNECTIONPOINTID	VARCHAR2(12)		Connection point identifier
AGCSTATUS	NUMBER(2,0)		AGC Status from EMS
DISPATCHMODE	NUMBER(2,0)		Dispatch mode of unit for fast start (1-4)
INITIALMW	NUMBER(15,5)		Initial MW at start of first period. For periods subsequent to the first period of a Pre-Dispatch run, this value represents the cleared target for the previous period of that Pre-Dispatch run.
TOTALCLEARED	NUMBER(15,5)		Target MW at end of period
LOWER5MIN	NUMBER(15,5)		Lower 5 min MW target in period
LOWER60SEC	NUMBER(15,5)		Lower 60 sec MW target in period
LOWER6SEC	NUMBER(15,5)		Lower 6 sec MW target in period
RAISE5MIN	NUMBER(15,5)		Raise 5 min MW target in period
RAISE60SEC	NUMBER(15,5)		Raise 60 sec MW target in period
RAISE6SEC	NUMBER(15,5)		Raise 6 sec MW target in period
RAMPDOWNRATE	NUMBER(15,5)		Ramp down rate in period in MW/minute
RAMPUPRATE	NUMBER(15,5)		Ramp up rate in period in MW/minute
DOWNEPF	NUMBER(15,5)		Not used in Pre-Dispatch
UPEPF	NUMBER(15,5)		Not used in Pre-Dispatch
MARGINAL5MINVALUE	NUMBER(15,5)		Marginal $ value for 5 min from LP Solver
MARGINAL60SECVALUE	NUMBER(15,5)		Marginal $ value for 60 seconds from LP Solver
MARGINAL6SECVALUE	NUMBER(15,5)		Marginal $ value for 6 seconds from LP Solver
MARGINALVALUE	NUMBER(15,5)		Marginal $ value for energy from LP Solver
VIOLATION5MINDEGREE	NUMBER(15,5)		Violation MW 5 min
VIOLATION60SECDEGREE	NUMBER(15,5)		Violation MW 60 seconds
VIOLATION6SECDEGREE	NUMBER(15,5)		Violation MW 6 seconds

VIOLATIONDEGREE	NUMBER(15,5)		Violation MW energy
LASTCHANGED	DATE		Last date and time record changed
DATETIME	DATE	X	Period date and time
LOWERREG	NUMBER(15,5)		Lower Regulation reserve target
RAISEREG	NUMBER(15,5)		Raise Regulation reserve target
AVAILABILITY	NUMBER(15,5)		For Scheduled units, this is the MAXAVAIL bid availability For Semi-scheduled units, this is the lower of MAXAVAIL bid availability and UIGF
RAISE6SECFLAGS	NUMBER(3,0)		Raise 6sec status flag
RAISE60SECFLAGS	NUMBER(3,0)		Raise 60sec status flag
RAISE5MINFLAGS	NUMBER(3,0)		Raise 5min status flag
RAISEREGFLAGS	NUMBER(3,0)		Raise reg status flag
LOWER6SECFLAGS	NUMBER(3,0)		Lower 6sec status flag
LOWER60SECFLAGS	NUMBER(3,0)		Lower 60sec status flag
LOWER5MINFLAGS	NUMBER(3,0)		Lower 5min status flag
LOWERREGFLAGS	NUMBER(3,0)		Lower Reg status flag
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
LOWERREGACTUALAVAILABI	NUMBER(16,6)		trapezium adjusted lower reg availability

LITY			
SEMIDISPATCHCAP	NUMBER(3,0)		Boolean representation flagging if the Target is Capped
CONFORMANCE_MODE	NUMBER(6,0)		Mode specific to units within an aggregate. 0 - no monitoring, 1 - aggregate monitoring, 2 - individual monitoring due to constraint
UIGF	NUMBER(15,5)		For Semi-Scheduled units. Unconstrained Intermittent Generation Forecast value provided to NEMDE
RAISE1SEC	NUMBER(15,5)		Dispatched Raise1Sec - TraderSolution element R1Target attribute
RAISE1SECFLAGS	NUMBER(3,0)		TraderSolution element R1Flags attribute
LOWER1SEC	NUMBER(15,5)		Dispatched Lower1Sec - TraderSolution element L1Target attribute
LOWER1SECFLAGS	NUMBER(3,0)		TraderSolution element L1Flags attribute
RAISE1SECACTUALAVAILABILITY	NUMBER(16,6)		Trapezium adjusted Raise 1Sec Availability
LOWER1SECACTUALAVAILABILITY	NUMBER(16,6)		Trapezium adjusted Lower 1Sec Availability

13.4 Table: PREDISPATCHPRICE

Name	PREDISPATCHPRICE
Comment	PREDISPATCHPRICE records predispatch prices for each region by period for each predispatch run, including fields to handle the Ancillary Services functionality.

13.4.1 Description

PREDISPATCHPRICE data is public, so is available to all participants.

Source

PREDISPATCHPRICE updates with every thirty-minute predispatch run.

13.4.2 Primary Key Columns

Name

DATETIME

REGIONID

13.4.3 Index Columns

Name

LASTCHANGED

13.4.4 Index Columns

Name

PREDISPATCHSEQNO

13.4.5 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 Predispatch 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 predispatch 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
RRP	NUMBER(15,5)		Regional Reference Price
EEP	NUMBER(15,5)		Excess energy price
RRP1	NUMBER(15,5)		Not used
EEP1	NUMBER(15,5)		Not used
RRP2	NUMBER(15,5)		Not used
EEP2	NUMBER(15,5)		Not used
RRP3	NUMBER(15,5)		Not used
EEP3	NUMBER(15,5)		Not used
RRP4	NUMBER(15,5)		Not used
EEP4	NUMBER(15,5)		Not used
RRP5	NUMBER(15,5)		Not used
EEP5	NUMBER(15,5)		Not used
RRP6	NUMBER(15,5)		Not used
EEP6	NUMBER(15,5)		Not used
RRP7	NUMBER(15,5)		Not used
EEP7	NUMBER(15,5)		Not used
RRP8	NUMBER(15,5)		Not used
EEP8	NUMBER(15,5)		Not used

LASTCHANGED	DATE		Last date and time record changed
DATETIME	DATE	X	Period date and time
RAISE6SECRRP	NUMBER(15,5)		Regional reference price for this dispatch period
RAISE60SECRRP	NUMBER(15,5)		Regional reference price for this dispatch period
RAISE5MINRRP	NUMBER(15,5)		Regional reference price for this dispatch period
RAISEREGRRP	NUMBER(15,5)		Regional reference price for this dispatch period
LOWER6SECRRP	NUMBER(15,5)		Regional reference price for this dispatch period
LOWER60SECRRP	NUMBER(15,5)		Regional reference price for this dispatch period
LOWER5MINRRP	NUMBER(15,5)		Regional reference price for this dispatch period
LOWERREGRRP	NUMBER(15,5)		Regional reference price for this dispatch period
RAISE1SECRRP	NUMBER(15,5)		Regional Raise 1Sec Price - R1Price attribute after capping /flooring
LOWER1SECRRP	NUMBER(15,5)		Regional Lower 1Sec Price - RegionSolution element L1Price attribute

13.5 Table: PREDISPATCHREGIONSUM

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

13.5.1 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).

13.5.2 Primary Key Columns

Name

DATETIME

REGIONID

13.5.3 Index Columns

Name

LASTCHANGED

13.5.4 Index Columns

Name

PREDISPATCHSEQNO

13.5.5 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 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_NONSCHEDGEN	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_CLEAREDMW	NUMBER(15,5)		Regional aggregated Semi-Schedule generator Cleared MW
SEMISCHEDULE_COMPLIANCEMW	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
WDR_INITIALMW	NUMBER(15,5)		Regional aggregated MW value at start of interval for Wholesale Demand Response (WDR) units
WDR_AVAILABLE	NUMBER(15,5)		Regional aggregated available MW for Wholesale Demand Response (WDR) units
WDR_DISPATCHED	NUMBER(15,5)		Regional aggregated dispatched MW for Wholesale Demand Response (WDR) units
SS_SOLAR_AVAILABILITY	NUMBER(15,5)		For Semi-Scheduled units. Aggregate Energy Availability from Solar units in that region
SS_WIND_AVAILABILITY	NUMBER(15,5)		For Semi-Scheduled units. Aggregate Energy Availability from Wind units in that

			region
RAISE1SECLOCALDISPATCH	NUMBER(15,5)		Total Raise1Sec Dispatched in Region - RegionSolution element R1Dispatch attribute
LOWER1SECLOCALDISPATCH	NUMBER(15,5)		Total Lower1Sec Dispatched in Region - RegionSolution element L1Dispatch attribute
RAISE1SECACTUALAVAILABILITY	NUMBER(16,6)		Trapezium adjusted Raise1Sec availability (summated from UnitSolution)
LOWER1SECACTUALAVAILABILITY	NUMBER(16,6)		Trapezium adjusted Lower1Sec availability (summated from UnitSolution)

14 Package: SETTLEMENT_CONFIG

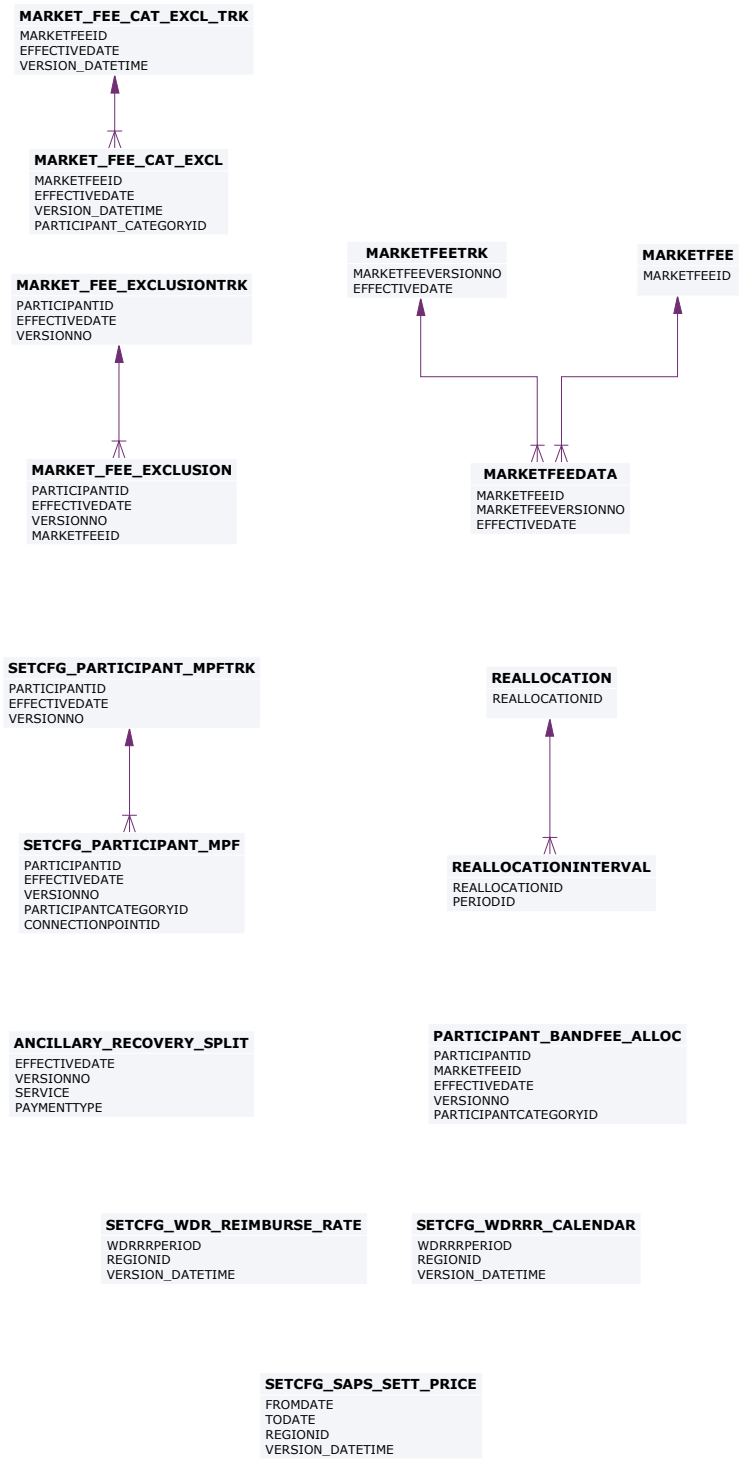
Name SETTLEMENT_CONFIG

Comment Configuration and input data for the Settlements Process

14.1 List of tables

Name	Comment
SETCFG_SAPS_SETT_PRICE	The Settlement Price for SAPS Energy in each Region

14.2 Diagram: Entities: Settlement Config



14.3 Table: SETCFG_SAPS_SETT_PRICE

Name SETCFG_SAPS_SETT_PRICE

Comment The Settlement Price for SAPS Energy in each Region

14.3.1 Primary Key Columns

Name

FROMDATE

REGIONID

TODATE

VERSION_DATETIME

14.3.2 Content

Name	Data Type	Mandatory	Comment
FROMDATE	DATE	X	The From Date of the SAPS Pricing Application Period
TODATE	DATE	X	The To Date of the SAPS Pricing Application Period
REGIONID	VARCHAR2(20)	X	The Region ID for which the calculated SAPS Price is applicable
VERSION_DATETIME	DATE	X	The Date time of the record generation
SAPS_RRP	NUMBER(18,8)		The Region Reference Price for SAPS in the Region
ISFIRM	NUMBER(3,0)		Whether the SAPS Price is Firm or Non-Firm
LASTCHANGED	DATE		The Last Changed Date time of the record

15 Package: SETTLEMENT_DATA

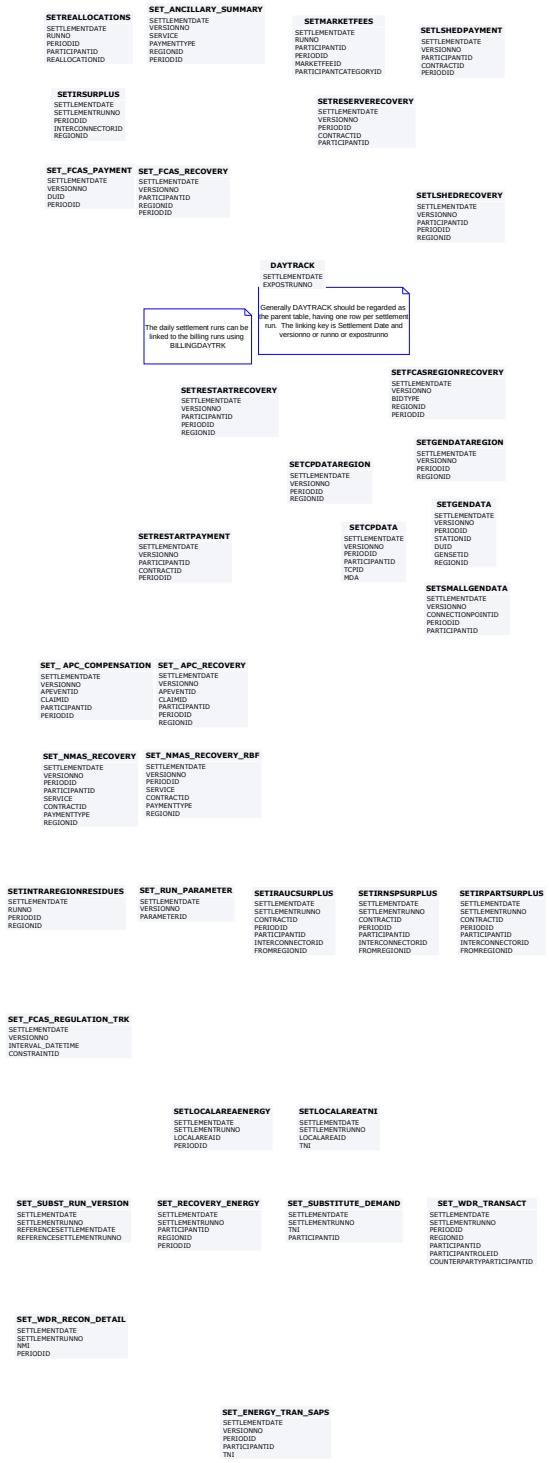
Name SETTLEMENT_DATA

Comment Results from a published Settlements 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.

15.1 List of tables

Name	Comment
SET_ENERGY_TRAN_SAPS	The table shows the Transaction Details for the SAPS Connection Points. The table contains both the MSRPs and Retailers data
SET_FCAS_PAYMENT	SET_FCAS_PAYMENT sets out the enabling payment details for frequency controlled Ancillary Services.
SET_FCAS_RECOVERY	SET_FCAS_RECOVERY shows reimbursements for the Frequency Control Ancillary Services (FCAS) to be recovered from participants. Beware of potential confusion with the table SETFCASRECOVERY, which reports reimbursements for Frequency Control Ancillary Services Compensation (now unused).
SETCPDATA	SETCPDATA shows meter settlement data for each connection point. This is the key view for retailers to verify energy charges. A regional summary view is also provided. As the view has values for each connection point by period, for each meter data file, it is a very large view.

15.2 Diagram: Entities: Settlement Data



15.3 Table: SET_ENERGY_TRAN_SAPS

Name SET_ENERGY_TRAN_SAPS

Comment The table shows the Transaction Details for the SAPS Connection Points. The table contains both the MSRPs and Retailers data

15.3.1 Primary Key Columns

Name

PARTICIPANTID

PERIODID

SETTLEMENTDATE

TNI

VERSIONNO

15.3.2 Content

Name	Data Type	Mandatory	Comment
SETTLEMENTDATE	DATE	X	The Settlement Date of the Billing Week
VERSIONNO	NUMBER(3,0)	X	The Settlement Run No
PERIODID	NUMBER(3,0)	X	The Period Id identifier
PARTICIPANTID	VARCHAR2(20)	X	The Participant ID for the SAPS TNI
TNI	VARCHAR2(20)	X	The SAPS Connection Point Identifier
REGIONID	VARCHAR2(20)		The SAPS Region ID
SAPS_RRP	NUMBER(18,8)		The SAPS Settlement Price for the Region
CONSUMED_ENERGY_MWH	NUMBER(18,8)		The Energy MWh Consumed for that TNI for the Participant ID
SENTOUT_ENERGY_MWH	NUMBER(18,8)		The Energy MWh Sent Out for the TNI for the Participant Id
CONSUMED_ENERGY_COST	NUMBER(18,8)		The Cost of the Consumed Energy

SENTOUT_ENERGY_COST	NUMBER(18,8)		The Cost of the Sent Out Energy
LASTCHANGED	DATE		The Last changed Date time of the record

15.4 Table: SET_FCAS_PAYMENT

Name	SET_FCAS_PAYMENT
Comment	SET_FCAS_PAYMENT sets out the enabling payment details for frequency controlled Ancillary Services.

15.4.1 Description

SET_FCAS_PAYMENT data is confidential to the relevant participant.

Volume

Approximately 150,000 per week.

15.4.2 Primary Key Columns

Name

DUID

PERIODID

SETTLEMENTDATE

VERSIONNO

15.4.3 Index Columns

Name

LASTCHANGED

15.4.4 Content

Name	Data Type	Mandatory	Comment
SETTLEMENTDATE	DATE	X	Settlement Date
VERSIONNO	NUMBER(3,0)	X	Settlement Run No
PARTICIPANTID	VARCHAR2(10)		Participant identifier
DUID	VARCHAR2(10)	X	Dispatchable unit identifier

REGIONID	VARCHAR2(10)		Region Identifier
PERIODID	NUMBER(3,0)	X	Settlements Trading Interval.
LOWER6SEC_PAYMENT	NUMBER(18,8)		Lower 6 Second Payment
RAISE6SEC_PAYMENT	NUMBER(18,8)		Raise 6 Second Payment
LOWER60SEC_PAYMENT	NUMBER(18,8)		Lower 60 Second Payment
RAISE60SEC_PAYMENT	NUMBER(18,8)		Raise 60 Second Payment
LOWER5MIN_PAYMENT	NUMBER(18,8)		Lower 5 Minute Payment
RAISE5MIN_PAYMENT	NUMBER(18,8)		Raise 5 Minute Payment
LOWERREG_PAYMENT	NUMBER(18,8)		Lower 5 Minute Regulation Payment
RAISEREG_PAYMENT	NUMBER(18,8)		Raise 5 Minute Regulation Payment
LASTCHANGED	DATE		Last date and time record changed
RAISE1SEC_PAYMENT	NUMBER(18,8)		Payment amount for the very fast raise service
LOWER1SEC_PAYMENT	NUMBER(18,8)		Payment amount for the very fast lower service

15.5 Table: SET_FCAS_RECOVERY

Name	SET_FCAS_RECOVERY
Comment	SET_FCAS_RECOVERY shows reimbursements for the Frequency Control Ancillary Services (FCAS) to be recovered from participants. Beware of potential confusion with the table SETFCASRECOVERY, which reports reimbursements for Frequency Control Ancillary Services Compensation (now unused).

15.5.1 Description

SET_FCAS_RECOVERY data is confidential to the relevant participant.

Volume

Approximately 1, 500, 000 per week.

15.5.2 Primary Key Columns

Name

PARTICIPANTID

PERIODID

REGIONID

SETTLEMENTDATE

VERSIONNO

15.5.3 Index Columns

Name

LASTCHANGED

15.5.4 Content

Name	Data Type	Mandatory	Comment
SETTLEMENTDATE	DATE	X	Settlement Date
VERSIONNO	VARCHAR2(3)	X	Settlement Run No

PARTICIPANTID	VARCHAR2(10)	X	Participant identifier
REGIONID	VARCHAR2(10)	X	Region Identifier
PERIODID	NUMBER(3,0)	X	Settlements Trading Interval.
LOWER6SEC_RECOVERY	NUMBER(18,8)		Recovery amount for the Lower 6 Second service attributable to customer connection points
RAISE6SEC_RECOVERY	NUMBER(18,8)		Recovery amount for the Raise 6 Second service attributable to customer connection points
LOWER60SEC_RECOVERY	NUMBER(18,8)		Recovery amount for the Lower 60 Second service attributable to customer connection points
RAISE60SEC_RECOVERY	NUMBER(18,8)		Recovery amount for the Raise 60 Second service attributable to customer connection points
LOWER5MIN_RECOVERY	NUMBER(18,8)		Recovery amount for the Lower 5 Minute service attributable to customer connection points
RAISE5MIN_RECOVERY	NUMBER(18,8)		Recovery amount for the Raise 5 Minute service attributable to customer connection points
LOWERREG_RECOVERY	NUMBER(18,8)		Recovery amount for the Lower Regulation service attributable to customer connection points
RAISEREG_RECOVERY	NUMBER(18,8)		Recovery amount for the Raise Regulation Second service attributable to customer connection points
LASTCHANGED	DATE		Last date and time record changed
LOWER6SEC_RECOVERY_GEN	NUMBER(18,8)		Recovery amount for the Lower 6 Second service attributable to generator connection points
RAISE6SEC_RECOVERY_GEN	NUMBER(18,8)		Recovery amount for the Raise 6 Second service attributable to generator connection points
LOWER60SEC_RECOVERY_GEN	NUMBER(18,8)		Recovery amount for the Lower 60 Second service attributable to generator connection points
RAISE60SEC_RECOVERY_GE	NUMBER(18,8)		Recovery amount for the Raise 60 Second service attributable to generator

N			connection points
LOWER5MIN_RECOVERY_GEN	NUMBER(18,8)		Recovery amount for the Lower 5 Minute service attributable to generator connection points
RAISE5MIN_RECOVERY_GEN	NUMBER(18,8)		Recovery amount for the Raise 5 Minute service attributable to generator connection points
LOWERREG_RECOVERY_GEN	NUMBER(18,8)		Recovery amount for the Lower Regulation service attributable to generator connection points
RAISEREG_RECOVERY_GEN	NUMBER(18,8)		Recovery amount for the Raise Regulation Second service attributable to generator connection points
RAISE1SEC_RECOVERY	NUMBER(18,8)		Customer recovery amount for the very fast raise service
LOWER1SEC_RECOVERY	NUMBER(18,8)		Customer recovery amount for the very fast lower service
RAISE1SEC_RECOVERY_GEN	NUMBER(18,8)		Generator recovery amount for the very fast raise service
LOWER1SEC_RECOVERY_GEN	NUMBER(18,8)		Generator recovery amount for the very fast lower service

15.6 Table: SETCPDATA

Name	SETCPDATA
Comment	SETCPDATA shows meter settlement data for each connection point. This is the key view for retailers to verify energy charges. A regional summary view is also provided. As the view has values for each connection point by period, for each meter data file, it is a very large view.

15.6.1 Description

The Connection point details (in SETCPDATA) are confidential to the participant and host retailer that the connection points relate to. By comparison, the regional data (SETCPDATAREGION) is publically available.

Source

SETCPDATA updates with each Settlement run.

15.6.2 Primary Key Columns

Name

MDA

PARTICIPANTID

PERIODID

SETTLEMENTDATE

TCPID

VERSIONNO

15.6.3 Index Columns

Name

LASTCHANGED

15.6.4 Index Columns

Name

PARTICIPANTID

15.6.5 Content

Name	Data Type	Mandatory	Comment
SETTLEMENTDATE	DATE	X	Calendar Settlement Date
VERSIONNO	NUMBER(10,0)	X	Settlement run no
PERIODID	NUMBER(10,0)	X	Settlements Trading Interval.
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier
TCPID	VARCHAR2(10)	X	Connection point identifier
REGIONID	VARCHAR2(10)		Region Identifier
IGENERGY	NUMBER(16,6)		Import Gross energy into the pool - MWh
XGENERGY	NUMBER(16,6)		Export Gross energy from the pool - MWh
INENERGY	NUMBER(16,6)		Import Nett energy into the pool - MWh, plus UFEA if the UFEA amount is positive. When GS commences, this includes the UFEA amount in the settlement runs.
XNENERGY	NUMBER(16,6)		Export Nett energy from the pool - MWh, plus (UFEA * -1) if the UFEA amount is negative. When GS commences, this includes the UFEA amount in the settlement runs.
IPOWER	NUMBER(16,6)		Import reactive power
XPOWER	NUMBER(16,6)		Export reactive power
RRP	NUMBER(20,5)		Regional Reference Price
EEP	NUMBER(16,6)		Excess Energy Price
TLF	NUMBER(7,5)		Transmission Loss Factor
CPRRP	NUMBER(16,6)		Connection Point Price = RRP * TLF
CPEEP	NUMBER(16,6)		Connection Point Excess Energy Price = EEP * TLF
TA	NUMBER(16,6)		Export - Import of Net energy (MWh)
EP	NUMBER(16,6)		settlement amount in $ for trading period

APC	NUMBER(16,6)		Not used
RESC	NUMBER(16,6)		Not used
RESP	NUMBER(16,6)		Not used
METERRUNNO	NUMBER(10,0)		Meter Run Number = version number of the meter file
LASTCHANGED	DATE		Last date and time record changed
HOSTDISTRIBUTOR	VARCHAR2(10)		Not used
MDA	VARCHAR2(10)	X	Metering Data Agent
AFE	NUMBER(18,8)		Accounted For Energy for this Market Customer FRMP and TNI in the Settlements Trading Interval, excluding any UFEA component
DME	NUMBER(18,8)		Sum of ME- for all NMIs at this Market Customer FRMP and TNI in the Settlements Trading Interval.
UFEA	NUMBER (18,8)		Share of UFE allocated to this FRMP and TNI in the Settlements Trading Interval.
AGE	NUMBER (18,8)		Adjusted Gross Energy for this Market Customer FRMP and TNI in the Settlements Trading Interval. When GS commences, this includes the UFEA amount in the settlement runs.
IMPORTENERGYCOST	NUMBER(18,8)		The total cost of energy sold at the connection point by the participant in this settlement interval
EXPORTENERGYCOST	NUMBER(18,8)		The total cost of energy purchased at the connection point by the participant in this settlement interval

16 Package: STPASA_SOLUTION

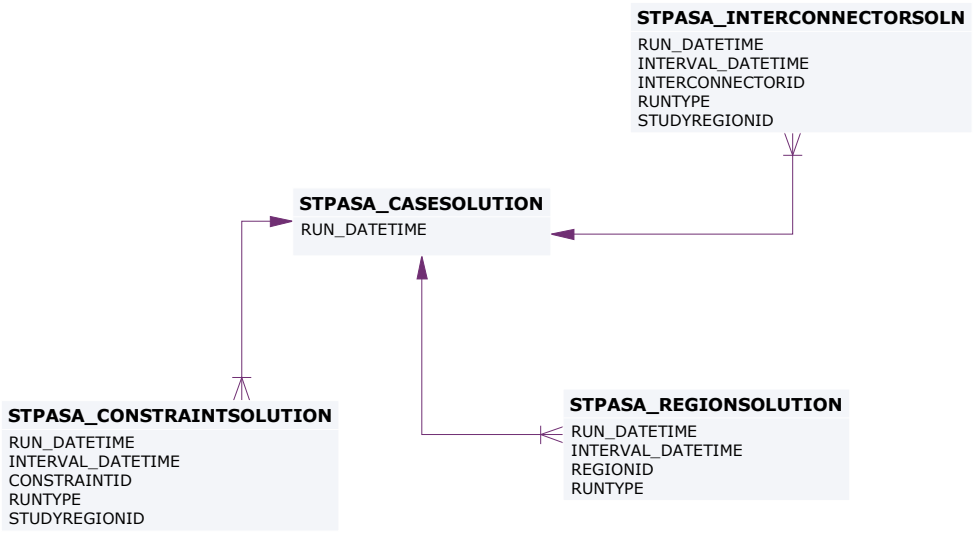
Name STPASA_SOLUTION

Comment Results from a published Short Term PASA Run

16.1 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.

16.2 Diagram: Entities: ST PASA Solution



16.3 Table: STPASA_REGIONSOLUTION

Name	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.

16.3.1 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

16.3.2 Primary Key Columns

Name

INTERVAL_DATETIME

REGIONID

RUN_DATETIME

RUNTYPE

16.3.3 Index Columns

Name

LASTCHANGED

16.3.4 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)		In a Region, capacity from generation/Load with no Daily Energy Constraint, subject to network security constraints
CONSTRAINEDCAPACITY	NUMBER(12,0)		In a Region, capacity from generation/Load with non-zero Daily Energy Constraint, subject to network security constraints
NETINTERCHANGEUNDERSCARCITY	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 units and Availability of all semi-scheduled units limited by MAXAVAIL 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, OUTAGE_LRC and LOR.
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
MSRNETINTERCHANGEUNDERSCARCITY	NUMBER(12,2)		Net interconnector flow from the region for this interval from the MSR assessment
LORNETINTERCHANGEUNDERSCARCITY	NUMBER(12,2)		Net interconnector flow from the region for this interval from the LOR assessment
TOTALINTERMITTENTGENERATION	NUMBER(15,5)		Allowance made for non-scheduled generation in the demand forecast (MW).
DEMAND_AND_NONSCHEDGEN	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)		Constrained generation forecast for semi-scheduled units for the region. For RELIABILITY_LRC run semi-scheduled generation is constrained only by System Normal constraints. For OUTAGE_LRC run and LOR run semi-scheduled generation is constrained by both System Normal and Outage constraints. All three run types (RELIABILITY_LRC, OUTAGE_LRC, LOR) incorporate MAXAVAIL limits.
LOR_SEMISCHEDULEDCAPACITY	NUMBER(12,2)		Constrained generation forecast for semi-scheduled units for the region for the LOR run type. Semi-scheduled generation is constrained by both System Normal and Outage constraints, and incorporate MAXAVAIL limits.
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)		Unconstrained Intermittent Generation Forecast for solar for the region. For RELIABILITY_LRC and OUTAGE_LRC run this is the POE90 forecast (determined by LRCUIGFOption in CaseSolution). For LOR run this is the POE50 forecast
SS_WIND_UIGF	Number (12,2)		Unconstrained Intermittent Generation Forecast for wind for the region. For RELIABILITY_LRC and OUTAGE_LRC run this is the POE90 forecast (determined by LRCUIGFOption in CaseSolution). For LOR run this is the POE50 forecast
SS_SOLAR_CAPACITY	Number (12,2)		Constrained generation forecast for solar for the region. For RELIABILITY_LRC run solar generation is constrained only by System Normal constraints. For OUTAGE_LRC run and LOR run solar generation is constrained by both System Normal and Outage constraints. All three run types (RELIABILITY_LRC,

			OUTAGE_LRC, LOR) incorporate MAXAVAIL limits.
SS_WIND_CAPACITY	Number (12,2)		Constrained generation forecast for wind for the region. For RELIABILITY_LRC run wind generation is constrained only by System Normal constraints. For OUTAGE_LRC run and LOR run wind generation is constrained by both System Normal and Outage constraints. All three run types (RELIABILITY_LRC, OUTAGE_LRC, LOR) incorporate MAXAVAIL limits.
SS_SOLAR_CLEARED	Number (12,2)		Constrained generation forecast for solar for the region. For RELIABILITY_LRC run solar generation is constrained only by System Normal constraints. For OUTAGE_LRC run and LOR run solar generation is constrained by both System Normal and Outage constraints. All three run types (RELIABILITY_LRC, OUTAGE_LRC, LOR) incorporate MAXAVAIL limits.
SS_WIND_CLEARED	Number (12,2)		Constrained generation forecast for wind for the region. For RELIABILITY_LRC run wind generation is constrained only by System Normal constraints. For OUTAGE_LRC run and LOR run wind generation is constrained by both System Normal and Outage constraints. All three run types (RELIABILITY_LRC, OUTAGE_LRC, LOR) incorporate MAXAVAIL limits.
WDR_AVAILABLE	NUMBER(12,2)		Regional aggregated Wholesale Demand Response (WDR) availability in MW.
WDR_PASAAVAILABLE	NUMBER(12,2)		Regional aggregated Wholesale Demand Response (WDR) PASA availability in MW.
WDR_CAPACITY	NUMBER(12,2)		Regional aggregated Wholesale Demand Response (WDR) capacity in MW.

17 Package: TRADING_DATA

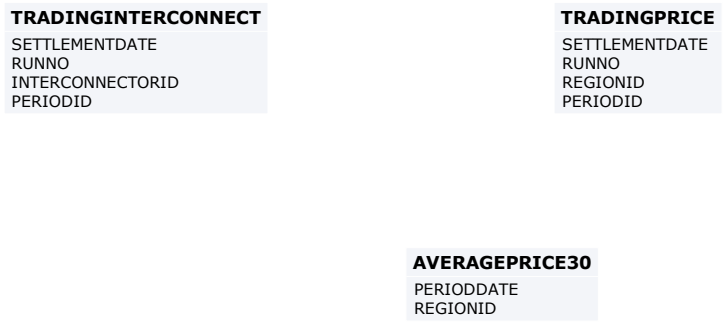
Name TRADING_DATA

Comment 30 minute Trading interval results

17.1 List of tables

Name	Comment
TRADINGPRICE	TRADINGPRICE sets out 5 minutes spot market price, including fields to handle the Ancillary Services functionality. If prices are adjusted, the final price is recorded in the regional reference price (RRP) field with price before adjustment recorded in the regional original price (ROP) field. Prior to 5 Minute Settlements, this was half-hourly spot market values, which was calculated as the average of the six 5 minute dispatch intervals within the 30 minute period.

17.2 Diagram: Entities: Trading Data



17.3 Table: TRADINGPRICE

Name	TRADINGPRICE
Comment	TRADINGPRICE sets out 5 minutes spot market price, including fields to handle the Ancillary Services functionality. If prices are adjusted, the final price is recorded in the regional reference price (RRP) field with price before adjustment recorded in the regional original price (ROP) field. Prior to 5 Minute Settlements, this was half-hourly spot market values, which was calculated as the average of the six 5 minute dispatch intervals within the 30 minute period.

17.3.1 Description

TRADINGPRICE data is public, so is available to all participants.

Source

TRADINGPRICE updates every 30 minutes.

Notes

INVALIDFLAG

The INVALIDFLAG field is used to indicate whether the Trading interval price has been adjusted after the trading interval was completed. On a very restricted set of events, the market rules allow a dispatch price (5 min) to be adjusted on the next business day, and, when this occurs, the corresponding trading interval price for that region is also adjusted and marked as adjusted with INVALIDFLAG of 'A'.

The INVALIDFLAG = 'Y' only applies to historical periods when not all six of the 5-minute dispatch intervals were run in the trading interval. System changes implemented on 30 September 2001 mean this situation no longer occurs since missing dispatch intervals are automatically populated from a previous interval.

If the INVALIDFLAG field = '0', the price was not adjusted and all six dispatch intervals are present.

Prices

There is no field in the TRADINGPRICE table (or the MMS data model anywhere) telling you that the price is provisional or final. The only reliable method is to ensure that the trading date is at least 2 business days old.

17.3.2 Primary Key Columns

Name

PERIODID

REGIONID

RUNNO

SETTLEMENTDATE

17.3.3 Index Columns

Name

LASTCHANGED

17.3.4 Content

Name	Data Type	Mandatory	Comment
SETTLEMENTDATE	DATE	X	Date that this data applies to
RUNNO	NUMBER(3,0)	X	Run No
REGIONID	VARCHAR2(10)	X	Region Identifier
PERIODID	NUMBER(3,0)	X	Period number where 1 represents the trading interval ending at 00:05 AEST
RRP	NUMBER(15,5)		Regional reference price for this dispatch period
EEP	NUMBER(15,5)		Excess energy price where negative average
INVALIDFLAG	VARCHAR2(1)		Indicates when the Trading interval price has been adjusted after the trading interval was completed
LASTCHANGED	DATE		Last date and time record changed
ROP	NUMBER(15,5)		Regional Original Price. The price before any adjustments were made
RAISE6SECRRP	NUMBER(15,5)		Regional reference price for this dispatch period
RAISE6SECROP	NUMBER(15,5)		Original regional price - prior to APC or VoLL overrides applied
RAISE60SECRRP	NUMBER(15,5)		Regional reference price for this dispatch period
RAISE60SECROP	NUMBER(15,5)		Original regional price - prior to APC or VoLL overrides applied
RAISE5MINRRP	NUMBER(15,5)		Regional reference price for this dispatch period

RAISE5MINROP	NUMBER(15,5)		Original regional price - prior to APC or VoLL overrides applied
RAISEREGRRP	NUMBER(15,5)		Regional reference price for this dispatch period
RAISEREGROP	NUMBER(15,5)		Original regional price - prior to APC or VoLL overrides applied
LOWER6SECRRP	NUMBER(15,5)		Regional reference price for this dispatch period
LOWER6SECROP	NUMBER(15,5)		Original regional price - prior to APC or VoLL overrides applied
LOWER60SECRRP	NUMBER(15,5)		Regional reference price for this dispatch period
LOWER60SECROP	NUMBER(15,5)		Original regional price - prior to APC or VoLL overrides applied
LOWER5MINRRP	NUMBER(15,5)		Regional reference price for this dispatch period
LOWER5MINROP	NUMBER(15,5)		Original regional price - prior to APC or VoLL overrides applied
LOWERREGRRP	NUMBER(15,5)		Regional reference price for this dispatch period
LOWERREGROP	NUMBER(15,5)		Original regional price - prior to APC or VoLL overrides applied
PRICE_STATUS	VARCHAR2(20)		Status of regional prices for this dispatch interval "NOT FIRM" or "FIRM"
RAISE1SECRRP	NUMBER(15,5)		Regional Raise 1Sec Price - R1Price attribute after capping/flooring
RAISE1SECROP	NUMBER(15,5)		Raise1Sec Regional Original Price - uncapped/unfloored and unscaled
LOWER1SECRRP	NUMBER(15,5)		Regional Lower 1Sec Price - RegionSolution element L1Price attribute
LOWER1SECROP	NUMBER(15,5)		Lower1Sec Regional Original Price - uncapped/unfloored and unscaled

18 Package: PDPASA

Name PDPASA

Comment The PDPASA package provides a 30-minute solving process to the Market systems

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.

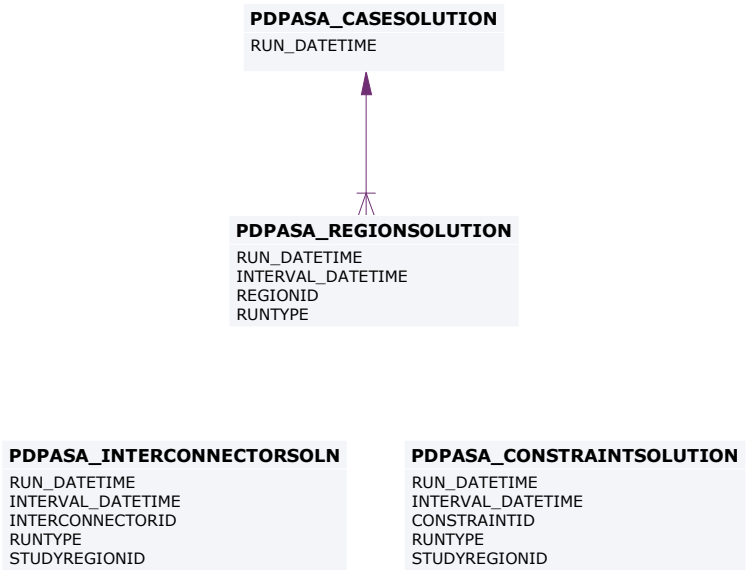
The calculation is a reserve assessment based on the PASA solver similar to existing ST and MT PASA business processes

The process reflects all intra-regional and inter-regional network constraints as an input to the process

18.1 List of tables

Name	Comment
PDPASA_REGIONSOLUTION	The PDPASA region solution data

18.2 Diagram: Entities: PD PASA



18.3 Table: PDPASA_REGIONSOLUTION

Name	PDPASA_REGIONSOLUTION
Comment	The PDPASA region solution data

18.3.1 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.

18.3.2 Primary Key Columns

Name
INTERVAL_DATETIME
REGIONID
RUN_DATETIME
RUNTYPE

18.3.3 Index Columns

Name

LASTCHANGED

18.3.4 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
NETINTERCHANGEUNDERSCARCITY	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 units and Availability of all semi-scheduled units limited by MAXAVAIL 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
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, OUTAGE_LRC and LOR.
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
MSRNETINTERCHANGEUNDERSCARCITY	NUMBER(12,2)		Net interconnector flow from the region for this interval from the MSR assessment
LORNETINTERCHANGEUNDERSCARCITY	NUMBER(12,2)		Net interconnector flow from the region for this interval from the LOR assessment
TOTALINTERMITTENTGENERATION	NUMBER(15,5)		Allowance made for non-scheduled generation in the demand forecast (MW).
DEMAND_AND_NONSCHEDGEN	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)		Constrained generation forecast for semi-scheduled units for the region. For RELIABILITY_LRC run semi-scheduled generation is constrained only by System Normal constraints. For OUTAGE_LRC run and LOR run semi-scheduled generation is constrained by both System Normal and Outage constraints. All three run types (RELIABILITY_LRC, OUTAGE_LRC, LOR) incorporate MAXAVAIL limits.
LOR_SemiScheduledCapacity	NUMBER(12,2)		Constrained generation forecast for semi-scheduled units for the region for the LOR run type. Semi-scheduled generation is constrained by both System Normal and Outage constraints, and incorporate MAXAVAIL limits.
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)		Unconstrained Intermittent Generation Forecast for solar for the region. For RELIABILITY_LRC and OUTAGE_LRC run this is the POE90 forecast (determined by LRCUIGFOption in CaseSolution). For LOR run this is the POE50 forecast
SS_WIND_UIGF	Number (12,2)		Unconstrained Intermittent Generation Forecast for wind for the region. For RELIABILITY_LRC and OUTAGE_LRC run this is the POE90 forecast (determined by LRCUIGFOption in CaseSolution). For LOR run this is the POE50 forecast
SS_SOLAR_CAPACITY	Number (12,2)		Constrained generation forecast for solar for the region. For RELIABILITY_LRC run solar generation is constrained only by System Normal constraints. For OUTAGE_LRC run and LOR run solar generation is constrained by both System Normal and Outage constraints. All three run types (RELIABILITY_LRC, OUTAGE_LRC, LOR) incorporate MAXAVAIL limits.
SS_WIND_CAPACITY	Number (12,2)		Constrained generation forecast for wind for the region. For RELIABILITY_LRC run wind generation is constrained only by System Normal constraints. For OUTAGE_LRC run and LOR run wind generation is constrained by both System Normal and Outage constraints. All three run types (RELIABILITY_LRC, OUTAGE_LRC, LOR) incorporate MAXAVAIL limits.
SS_SOLAR_CLEARED	Number (12,2)		Constrained generation forecast for solar for the region. For RELIABILITY_LRC run solar generation is constrained only by System Normal constraints. For OUTAGE_LRC run and LOR run solar generation is constrained by both System Normal and Outage constraints. All three run types (RELIABILITY_LRC, OUTAGE_LRC, LOR) incorporate MAXAVAIL limits.
SS_WIND_CLEARED	Number (12,2)		Constrained generation forecast for wind for the region. For RELIABILITY_LRC run wind generation is constrained only by

			System Normal constraints. For OUTAGE_LRC run and LOR run wind generation is constrained by both System Normal and Outage constraints. All three run types (RELIABILITY_LRC, OUTAGE_LRC, LOR) incorporate MAXAVAIL limits.
WDR_AVAILABLE	NUMBER(12,2)		Regional aggregated Wholesale Demand Response (WDR) availability in MW.
WDR_PASAAVAILABLE	NUMBER(12,2)		Regional aggregated Wholesale Demand Response (WDR) PASA availability in MW.
WDR_CAPACITY	NUMBER(12,2)		Regional aggregated Wholesale Demand Response (WDR) capacity in MW.

19 Package: VOLTAGE_INSTRUCTIONS

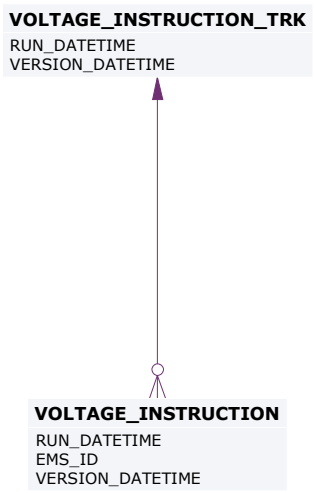
Name VOLTAGE_INSTRUCTIONS

Comment Instructions for MVAr Dispatch

19.1 List of tables

Name	Comment
VOLTAGE_INSTRUCTION	Child record for Voltage Instructions (MVAr Dispatch)

19.2 Diagram: Entities: Voltage Instructions



19.3 Table: VOLTAGE_INSTRUCTION

Name VOLTAGE_INSTRUCTION

Comment Child record for Voltage Instructions (MVAr Dispatch)

19.3.1 Primary Key Columns

Name

EMS_ID

RUN_DATETIME

VERSION_DATETIME

19.3.2 Index Columns

Name

RUN_DATETIME

VERSION_DATETIME

EMS_ID

19.3.3 Content

Name	Data Type	Mandatory	Comment
RUN_DATETIME	date	X	MVAr Interval – a timestamp of when instructions issued
EMS_ID	varchar2(60)	X	The unique identifier for reference within AEMO –matches equipment names between NOS and EMS
PARTICIPANTID	varchar2(20)		The NEM id of the participant who owns the equipment
STATION_ID	varchar2(60)		The id of the station where the control equipment resides
DEVICE_ID	varchar2(60)		The company/participant preferred name of an equipment

DEVICE_TYPE	varchar2(20)		One of REACTOR, CAPACITOR, GEN, SVC, TRANS or GRPGEN but may be extended to other types
CONTROL_TYPE	varchar2(20)		One of VOLTAGE, TAP, MVAR, SWITCH or COMMIT but may be extended to other types
TARGET	number(20,5)		Instruction for the device, for this interval null denotes no instruction
CONFORMING	number(1,0)		[0,1] Denotes if the Device is currently conforming
INSTRUCTION_SUMMARY	varchar2(400)		Verbose summary of instruction
VERSION_DATETIME	DATE	X	Datetime the file was published by VDS - Versions differ from Run_DateTime only for Supplemental runs
INSTRUCTION_SEQUENCE	number(4,0)		Order for execution of Instruction
ADDITIONAL_NOTES	varchar2(60)		Additional information pertaining to a particular instruction, e.g. Previously issued instruction revoked