MMS Data Model Upgrade Report

AEMO Electricity Data Model v5.3 Oracle

7/03/2024

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1 Description of the model AEMO Electricity Data Model v5.3 Oracle

Background

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

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

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 Current product supplied by AEMO for data transfer is Participant Data Replication (PDR), with some support for the superseded Parser.

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

Entity Diagrams

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

Note:

The National Electricity Market registration classification of Yarwun Power Station Unit 1 (dispatchable unit ID: YARWUN_1) is market non-scheduled generating unit. However, it is a condition of the registration of this unit that the Registered Participant complies with some of the obligations of a Scheduled Generator. This unit is dispatched as a scheduled generating unit with respect to its dispatch offers, targets and generation outputs. Accordingly, information about YARWUN_1 is reported as scheduled generating unit information.

2 Notes

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

2.1 Visibility

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

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

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

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

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

3 Package: BIDS

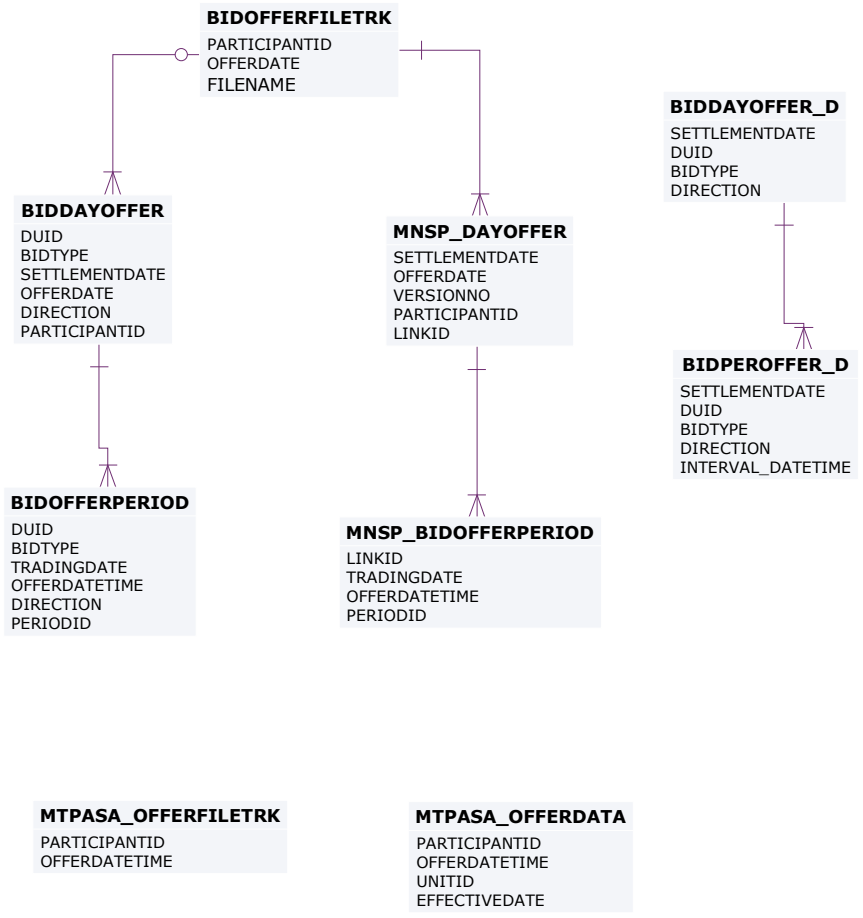
Name BIDS

Comment Energy and Market Based FCAS Offers

3.1 List of tables

Name	Comment
BIDDAYOFFER	BIDDAYOFFER shows the Energy and Ancillary Service bid data for each Market Day. BIDDAYOFFER is the parent table to BIDOFFERPERIOD. BIDDAYOFFER is a child table to BIDOFFERFILETRK
BIDDAYOFFER_D	BIDDAYOFFER_D shows the public summary of the energy and FCAS offers applicable in the Dispatch for the intervals identified. BIDDAYOFFER_D is the parent table to BIDPEROFFER_D.
BIDOFFERPERIOD	BIDOFFERPERIOD shows 5-minute period-based Energy and Ancillary Service bid data.BIDOFFERPERIOD is a child table of BIDDAYOFFER
BIDPEROFFER_D	BIDPEROFFER_D shows the public summary of the energy and FCAS offers applicable in the Dispatch for the intervals identified. BIDPEROFFER_D is the child to BIDDAYOFFER_D.

3.2 Diagram: Entities: Bids



3.3 Table: BIDDAYOFFER

Name	BIDDAYOFFER
Comment	BIDDAYOFFER shows the Energy and Ancillary Service bid data for each Market Day. BIDDAYOFFER is the parent table to BIDOFFERPERIOD. BIDDAYOFFER is a child table to BIDOFFERFILETRK

3.3.1 Description

The ancillary service arrangements require availability and prices for each Frequency Control Ancillary Service to be bid on a similar basis to energy. Three tables (BIDOFFERFILETRK, BIDDAYOFFER and BIDOFFERPERIOD) facilitate ancillary service bidding and include energy bidding.

BIDDAYOFFER data is confidential to the submitting participant until made public after 4am the next day.

Source

BIDDAYOFFER updates as ancillary service bids are processed. BIDDAYOFFER includes all accepted energy and ancillary service bids.

Volume

Approximately 1,500,000 records per year

3.3.2 Primary Key Columns

Name

BIDTYPE

DIRECTION

DUID

OFFERDATE

SETTLEMENTDATE

3.3.3 Index Columns

Name

LASTCHANGED

3.3.4 Index Columns

Name

PARTICIPANTID

3.3.5 Content

Name	Data Type	Mandatory	Comment
DUID	VARCHAR2(10)	X	Dispatchable unit identifier
BIDTYPE	VARCHAR2(10)	X	Bid Type Identifier
SETTLEMENTDATE	DATE	X	Market date for applying the bid
OFFERDATE	TIMESTAMP(3)	X	Time this bid was processed and loaded
DIRECTION	VARCHAR2(20)	X	The power flow direction to which this offer applies: GEN, LOAD or BIDIRECTIONAL
VERSIONNO	NUMBER(22,0)		Version No. for given offer date
PARTICIPANTID	VARCHAR2(10)		Unique participant identifier
DAILYENERGYCONSTRAINT	NUMBER(12,6)		Maximum energy available from Energy Constrained Plant. (Energy Bids Only)
REBIDEXPLANATION	VARCHAR2(500)		Explanation for all rebids and inflexibilities
PRICEBAND1	NUMBER(9,2)		Price for Availability Band 1
PRICEBAND2	NUMBER(9,2)		Price for Availability Band 2

PRICEBAND3	NUMBER(9,2)		Price for Availability Band 3
PRICEBAND4	NUMBER(9,2)		Price for Availability Band 4
PRICEBAND5	NUMBER(9,2)		Price for Availability Band 5
PRICEBAND6	NUMBER(9,2)		Price for Availability Band 6
PRICEBAND7	NUMBER(9,2)		Price for Availability Band 6
PRICEBAND8	NUMBER(9,2)		Price for Availability Band 8
PRICEBAND9	NUMBER(9,2)		Price for Availability Band 9
PRICEBAND10	NUMBER(9,2)		Price for Availability Band 10
MINIMUMLOAD	NUMBER(22,0)		Minimum MW load fast start plant
T1	NUMBER(22,0)		Time to synchronise in minutes (Energy Bids Only)
T2	NUMBER(22,0)		Time to minimum load in minutes (Energy Bids Only)
T3	NUMBER(22,0)		Time at minimum load in minutes (Energy Bids Only)
T4	NUMBER(22,0)		Time to shutdown in minutes (Energy Bids Only)
NORMALSTATUS	VARCHAR2(3)		not used; was ON/OFF for loads (Energy Bids Only)
LASTCHANGED	DATE		Last date and time record changed
MR_FACTOR	NUMBER(16,6)		Mandatory Restriction Offer Factor
ENTRYTYPE	VARCHAR2(20)		Daily if processed before BidCutOff of previous day, otherwise REBID
REBID_EVENT_TIME	VARCHAR2(20)		The time of the event(s) or other occurrence(s) cited/adduced as the reason for the rebid. Required for

			rebids, not required for fixed load or low ramp rates. Expected in the format: HH:MM:SS e.g. 20:11:00
REBID_AWARE_TIME	VARCHAR2(20)		Intended to support the Rebidding and Technical Parameters Guideline. The time at which the participant became aware of the event(s) / occurrence(s) that prompted the rebid.Not validated by AEMO
REBID_DECISION_TIME	VARCHAR2(20)		Intended to support the Rebidding and Technical Parameters Guideline. The time at which the participant made the decision to rebid. Not validated by AEMO
REBID_CATEGORY	VARCHAR2(1)		Intended to support the Rebidding and Technical Parameters Guideline. A provided rebid category. Not validated by AEMO
REFERENCE_ID	VARCHAR2(100)		A participants unique Reference Id

3.4 Table: BIDDAYOFFER_D

Name	BIDDAYOFFER_D
Comment	BIDDAYOFFER_D shows the public summary of the energy and FCAS offers applicable in the Dispatch for the intervals identified. BIDDAYOFFER_D is the parent table to BIDPEROFFER_D.

3.4.1 Description

BIDDAYOFFER_D data is made public after 4am the next day.

Source

BIDDAYOFFER_D updates as ancillary service bids are processed. BIDDAYOFFER_D shows latest accepted energy and ancillary service bids.

Volume

Summary - approximately 1,000 rows per day

3.4.2 Primary Key Columns

Name

BIDTYPE

DIRECTION

DUID

SETTLEMENTDATE

3.4.3 Index Columns

Name

LASTCHANGED

3.4.4 Index Columns

Name

PARTICIPANTID

3.4.5 Content

Name	Data Type	Mandatory	Comment
SETTLEMENTDATE	DATE	X	Market date for which the bid applied
DUID	VARCHAR2(10)	X	Dispatchable unit identifier
BIDTYPE	VARCHAR2(10)	X	Bid Type Identifier
DIRECTION	VARCHAR2(20)	X	The power flow direction to which this offer applies: GEN, LOAD or BIDIRECTIONAL
BIDSETTLEMENTDATE	DATE		Market date for which the bid was submitted.
OFFERDATE	DATE		Offer date and time
VERSIONNO	NUMBER(22,0)		Version No. for given offer date
PARTICIPANTID	VARCHAR2(10)		Unique participant identifier
DAILYENERGYCONSTRAINT	NUMBER(12,6)		Maximum energy available from Energy Constrained Plant. (Energy Bids Only)
REBIDEXPLANATION	VARCHAR2(500)		Explanation for all rebids and inflexibilities
PRICEBAND1	NUMBER(9,2)		Price for Availability Band 1
PRICEBAND2	NUMBER(9,2)		Price for Availability Band 2
PRICEBAND3	NUMBER(9,2)		Price for Availability Band 3
PRICEBAND4	NUMBER(9,2)		Price for Availability Band 4

PRICEBAND5	NUMBER(9,2)		Price for Availability Band 5
PRICEBAND6	NUMBER(9,2)		Price for Availability Band 6
PRICEBAND7	NUMBER(9,2)		Price for Availability Band 7
PRICEBAND8	NUMBER(9,2)		Price for Availability Band 8
PRICEBAND9	NUMBER(9,2)		Price for Availability Band 9
PRICEBAND10	NUMBER(9,2)		Price for Availability Band 10
MINIMUMLOAD	NUMBER(22,0)		Minimum MW load fast start plant
T1	NUMBER(22,0)		Time to synchronise in minutes (Energy Bids Only)
T2	NUMBER(22,0)		Time to minimum load in minutes (Energy Bids Only)
T3	NUMBER(22,0)		Time at minimum load in minutes (Energy Bids Only)
T4	NUMBER(22,0)		Time to shutdown in minutes (Energy Bids Only)
NORMALSTATUS	VARCHAR2(3)		ON/OFF for loads (Energy Bids Only)
LASTCHANGED	DATE		Last date and time record changed
MR_FACTOR	NUMBER(16,6)		Mandatory Restriction Scaling Factor
ENTRYTYPE	VARCHAR2(20)		Daily if processed before BidCutOff of previous day, otherwise REBID

3.5 Table: BIDOFFERPERIOD

Name	BIDOFFERPERIOD
Comment	BIDOFFERPERIOD shows 5-minute period-based Energy and Ancillary Service bid data.BIDOFFERPERIOD is a child table of BIDDAYOFFER

3.5.1 Primary Key Columns

Name

BIDTYPE

DIRECTION

DUID

OFFERDATETIME

PERIODID

TRADINGDATE

3.5.2 Content

Name	Data Type	Mandatory	Comment
DUID	VARCHAR2(20)	X	Dispatchable Unit ID
BIDTYPE	VARCHAR2(10)	X	The type of bid, one-of ENERGY, RAISE6SEC, RAISE60SEC, RAISE5MIN, RAISEREG, LOWER6SEC, LOWER60SEC, LOWER5MIN, LOWERREG
TRADINGDATE	DATE	X	The trading date this bid is for
OFFERDATETIME	TIMESTAMP(3)	X	Time this bid was processed and loaded

DIRECTION	VARCHAR2(20)	X	The power flow direction to which this offer applies: GEN, LOAD or BIDIRECTIONAL
PERIODID	NUMBER(3,0)	X	Period ID 1 to 288
MAXAVAIL	NUMBER(8,3)		Maximum availability for this BidType in this period
FIXEDLOAD	NUMBER(8,3)		Fixed unit output MW (Energy bids only) A null value means no fixed load so the unit is dispatched according to bid and market
RAMPUPRATE	NUMBER(6)		MW/Min for raise (Energy bids only)
RAMPDOWNRATE	NUMBER(6)		MW/Min for lower (Energy bids only)
ENABLEMENTMIN	NUMBER(8,3)		Minimum Energy Output (MW) at which this ancillary service becomes available (AS Only)
ENABLEMENTMAX	NUMBER(8,3)		Maximum Energy Output (MW) at which this ancillary service can be supplied (AS Only)
LOWBREAKPOINT	NUMBER(8,3)		Minimum Energy Output (MW) at which the unit can provide the full availability (MAXAVAIL) for this ancillary service (AS Only)
HIGHBREAKPOINT	NUMBER(8,3)		Maximum Energy Output (MW) at which the unit can provide the full availability (MAXAVAIL) for this ancillary service (AS Only)
BANDAVAIL1	NUMBER(8,3)		Availability at price band 1
BANDAVAIL2	NUMBER(8,3)		Availability at price band 2

BANDAVAIL3	NUMBER(8,3)		Availability at price band 3
BANDAVAIL4	NUMBER(8,3)		Availability at price band 4
BANDAVAIL5	NUMBER(8,3)		Availability at price band 5
BANDAVAIL6	NUMBER(8,3)		Availability at price band 6
BANDAVAIL7	NUMBER(8,3)		Availability at price band 7
BANDAVAIL8	NUMBER(8,3)		Availability at price band 8
BANDAVAIL9	NUMBER(8,3)		Availability at price band 9
BANDAVAIL10	NUMBER(8,3)		Availability at price band 10
PASAAVAILABILITY	NUMBER(8,3)		Allows for future use for Energy bids, being the physical plant capability including any capability potentially available within 24 hours
ENERGYLIMIT	NUMBER(15,5)		The Energy limit applying at the end of this dispatch interval in MWh. For GEN this is a lower energy limit. For LOAD this is an upper energy limit
PERIODIDTO	NUMBER(3,0)		Period ID Ending

3.6 Table: BIDPEROFFER_D

Name	BIDPEROFFER_D
Comment	BIDPEROFFER_D shows the public summary of the energy and FCAS offers applicable in the Dispatch for the intervals identified. BIDPEROFFER_D is the child to BIDDAYOFFER_D.

3.6.1 Description

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

Source

BIDPEROFFER_D updates daily shortly after 4am.

See also BIDPEROFFER.

3.6.2 Primary Key Columns

Name

BIDTYPE

DIRECTION

DUID

INTERVAL_DATETIME

SETTLEMENTDATE

3.6.3 Index Columns

Name

LASTCHANGED

3.6.4 Content

Name	Data Type	Mandatory	Comment
SETTLEMENTDATE	DATE	X	Market date for which the bid

			applied
DUID	VARCHAR2(10)	X	Dispatchable Unit identifier
BIDTYPE	VARCHAR2(10)	X	Bid Type Identifier
DIRECTION	VARCHAR2(20)	X	The power flow direction to which this offer applies: GEN, LOAD or BIDIRECTIONAL
INTERVAL_DATETIME	DATE	X	Date and Time of the dispatch interval to which the offer applied
BIDSETTLEMENTDATE	DATE		Market date for which the bid was submitted
OFFERDATE	DATE		Offer date and time
PERIODID	NUMBER(22,0)		The trading interval period identifier (1-288)
VERSIONNO	NUMBER(22,0)		Version number of offer
MAXAVAIL	NUMBER(12,6)		Maximum availability for this BidType in this period
FIXEDLOAD	NUMBER(12,6)		Fixed unit output MW (Energy Bids Only). A value of zero means no fixed load so the unit is dispatched according to bid and market (rather than zero fixed load)
ROCUP	NUMBER(6,0)		MW/min for raise (Energy Bids Only)
ROCDOWN	NUMBER(6,0)		MW/Min for lower (Energy Bids Only)
ENABLEMENTMIN	NUMBER(6,0)		Minimum Energy Output (MW) at which this ancillary service

			becomes available (AS Only)
ENABLEMENTMAX	NUMBER(6,0)		Maximum Energy Output (MW) at which this ancillary service can be supplied (AS Only)
LOWBREAKPOINT	NUMBER(6,0)		Minimum Energy Output (MW) at which the unit can provide the full availability (MAXAVAIL) for this ancillary service (AS Only)
HIGHBREAKPOINT	NUMBER(6,0)		Maximum Energy Output (MW) at which the unit can provide the full availability (MAXAVAIL) for this ancillary service (AS Only)
BANDAVAIL1	NUMBER(22,0)		Availability at price band 1
BANDAVAIL2	NUMBER(22,0)		Availability at price band 2
BANDAVAIL3	NUMBER(22,0)		Availability at price band 3
BANDAVAIL4	NUMBER(22,0)		Availability at price band 4
BANDAVAIL5	NUMBER(22,0)		Availability at price band 5
BANDAVAIL6	NUMBER(22,0)		Availability at price band 6
BANDAVAIL7	NUMBER(22,0)		Availability at price band 7
BANDAVAIL8	NUMBER(22,0)		Availability at price band 8
BANDAVAIL9	NUMBER(22,0)		Availability at price band 9
BANDAVAIL10	NUMBER(22,0)		Availability at price band 10
LASTCHANGED	DATE		Last date and time record changed
PASAAVAILABILITY	NUMBER(12,0)		Allows for future use for energy bids, being the physical plant capability including any capability potentially available within 24 hours

MR_CAPACITY	NUMBER(6,0)		Mandatory Restriction Offer amount
ENERGYLIMIT	NUMBER(15,5)		The Energy limit applying at the end of this dispatch interval in MWh. For GEN this is a lower energy limit. For LOAD this is an upper energy limit

4 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.

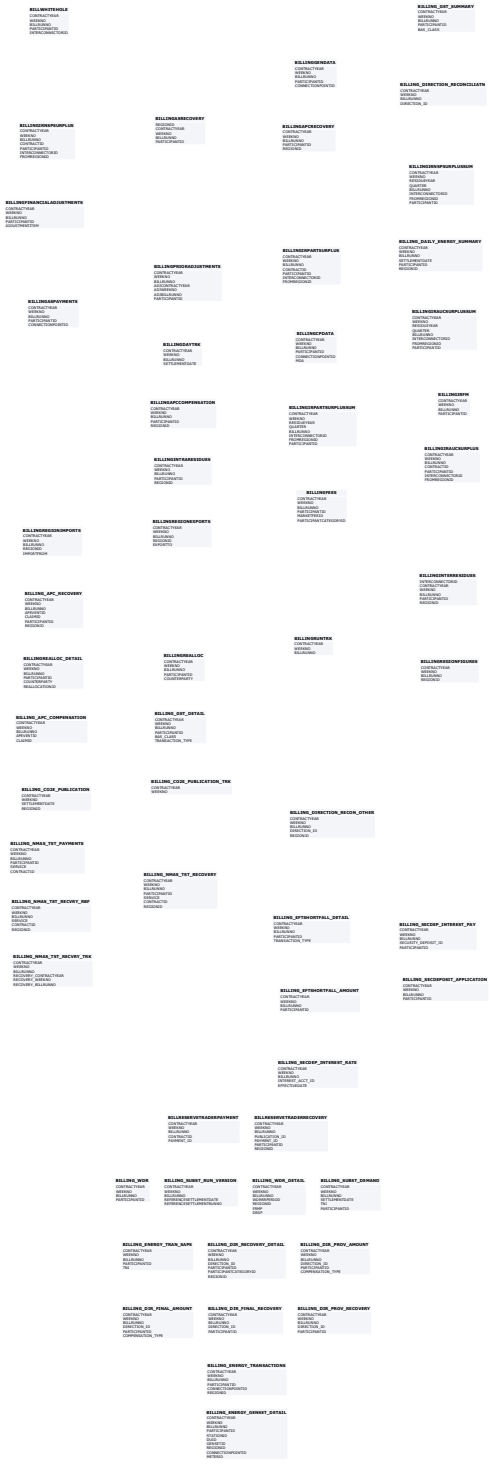
Each billing run is uniquely identified by contract year, week no and bill run no.

4.1 List of tables

Name	Comment
BILLING_APC_RECOVERY	Billing result table for recovery of APC compensation payments
BILLING_DAILY_ENERGY_SUMMARY	Billing result table containing daily summary data for customer and generator energy amounts
BILLING_DIRECTION_RECON_OTHER	Billing reconciliation result table for both provisional and final directions
BILLING_ENERGY_GENSET_DETAIL	The Billing Energy Genset report contains the Genset Energy detail summary for the Billing Week data
BILLING_ENERGY_TRANSACTIONS	The Billing Energy Transactions is the summary of the Settlement Energy Transactions that has the ACE and ASOE MWh and Dollar values that is used for the Statement
BILLING_NMAS_TST_RECOVERY	BILLING_NMAS_TEST_RECOVERY sets out the recovery of NMAS testing payments
BILLINGASRECOVERY	BILLINGASRECOVERY shows participant charges for Ancillary Services for the billing period. This view shows the billing amounts for Ancillary Service Recovery.
BILLRESERVETRADERRECOVERY	Provides details of the RERT Recovery Amount for the

	Market Customers.

4.2 Diagram: Entities: Billing Run



4.3 Table: BILLING_APC_RECOVERY

Name	BILLING_APC_RECOVERY
Comment	Billing result table for recovery of APC compensation payments

4.3.1 Description

Updated with each billing run

4.3.2 Primary Key Columns

Name

APEVENTID

BILLRUNNO

CLAIMID

CONTRACTYEAR

PARTICIPANTID

REGIONID

WEEKNO

4.3.3 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4)	X	Billing contract year
WEEKNO	NUMBER(3)	X	Billing week number
BILLRUNNO	NUMBER(3)	X	Billing run number
APEVENTID	NUMBER(6)	X	AP Event Id
CLAIMID	NUMBER(6)	X	AP Event Claim Id

PARTICIPANTID	VARCHAR2(20)	X	Participant identifier
REGIONID	VARCHAR2(20)	X	Region Identifier
RECOVERY_AMOUNT	NUMBER(18,8)		Recovery amount attributable to the participant in that region
ELIGIBILITY_START_INTERVAL	DATE		The starting half hourly interval for the eligibility period for recovery of APC Payment
ELIGIBILITY_END_INTERVAL	DATE		The ending half hourly interval for the eligibility period for recovery of APC Payment
PARTICIPANT_DEMAND	NUMBER(18,8)		The participant demand in the cost recovery region
REGION_DEMAND	NUMBER(18,8)		The sum of demand of all participants in the cost recovery region (Region Sum)
LASTCHANGED	DATE		The date and time of last changed record
PARTICIPANT_ACE_MWH	NUMBER(18,8)		The ACE MWh value of the participant from the Eligibility Interval used for the APC Recovery Calculation. If the Billing Week is prior to the IESS rule effective date, then value is Null.
REGION_ACE_MWH	NUMBER(18,8)		The ACE MWh value of the Region from the Eligibility Interval used for the APC Recovery Calculation. This is the sum of the ACE MWh of all the participants in that recovery. If the Billing Week is prior to the IESS rule effective date, then value is

			Null.

4.4 Table: BILLING_DAILY_ENERGY_SUMMARY

Name	BILLING_DAILY_ENERGY_SUMMARY
Comment	Billing result table containing daily summary data for customer and generator energy amounts

4.4.1 Description

BILLING_DAILY_ENERGY_SUMMARY data is confidential to the relevant participant.

Source

Populated by the posting of a billing run.

Volume

Approximately 20 records per billrunno.

4.4.2 Primary Key Columns

Name

BILLRUNNO

CONTRACTYEAR

PARTICIPANTID

REGIONID

SETTLEMENTDATE

WEEKNO

4.4.3 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 Run number
SETTLEMENTDATE	DATE	X	settlement date
PARTICIPANTID	VARCHAR2(20)	X	participant identifier
REGIONID	VARCHAR2(20)	X	Unique Region Identifier
CUSTOMER_ENERGY_PURCHASED	NUMBER(18,8)		Customer energy amount purchased on this settlement day by the participant in the region. NULL for Billing Week post the IESS rule effective date.
GENERATOR_ENERGY_SOLD	NUMBER(18,8)		Generator energy amount sold on this settlement day by the participant in the region. NULL for Billing Week post the IESS rule effective date.
GENERATOR_ENERGY_PURCHASED	NUMBER(18,8)		Generator energy amount purchased on this settlement day by the participant in the region. NULL for Billing Week post the IESS rule effective date.
ACE_MWH	NUMBER(18,8)		The Sum of ACE MWh value for the Participant and region for the Settlement Date. NULL for Billing Week prior to the IESS rule effective date
ASOE_MWH	NUMBER(18,8)		The Sum of ASOE MWh value for the Participant and region for the Settlement Date. NULL for Billing Week prior to the IESS rule effective date
ACE_AMOUNT	NUMBER(18,8)		The Sum of ACE Amount for the Participant and region for the

			Settlement Date. NULL for Billing Week prior to the IESS rule effective date
ASOE_AMOUNT	NUMBER(18,8)		The Sum of ASOE Amount for the Participant and region for the Settlement Date. NULL for Billing Week prior to the IESS rule effective date
CE_MWH	NUMBER(18,8)		The Sum of CE MWh value for the Participant and region for the Settlement Date. NULL for Billing Week prior to the IESS rule effective date
UFEA_MWH	NUMBER(18,8)		The Sum of UFEA MWh value for the Participant and region for the Settlement Date. NULL for Billing Week prior to the IESS rule effective date
TOTAL_MWH	NUMBER(18,8)		The Sum of Total MWh value for the Participant and region for the Settlement Date. NULL for Billing Week prior to the IESS rule effective date
TOTAL_AMOUNT	NUMBER(18,8)		The Sum of Total Amount for the Participant and region for the Settlement Date. NULL for Billing Week prior to the IESS rule effective date

4.5 Table: BILLING_DIRECTION_RECON_OTHER

Name BILLING_DIRECTION_RECON_OTHER

Comment Billing reconciliation result table for both provisional and final directions

4.5.1 Primary Key Columns

Name

BILLRUNNO

CONTRACTYEAR

DIRECTION_ID

REGIONID

WEEKNO

4.5.2 Index Columns

Name

CONTRACTYEAR

WEEKNO

BILLRUNNO

DIRECTION_ID

REGIONID

4.5.3 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4)	X	Billing contract year

WEEKNO	NUMBER(3)	X	Billing week no
BILLRUNNO	NUMBER(3)	X	Billing run no
DIRECTION_ID	VARCHAR2(20)	X	Direction identifier
REGIONID	VARCHAR2(20)	X	Region Identifier
DIRECTION_DESC	VARCHAR2(200)		Direction description
DIRECTION_TYPE_ID	VARCHAR2(20)		The service for which the direction occurred (ENERGY, ANCILLARY, NON_ENERGY_NON_AS, etc)
DIRECTION_START_DATE	DATE		Settlement day on which the direction starts
DIRECTION_END_DATE	DATE		Settlement day on which the direction ends. The same value for all regions
DIRECTION_START_INTERVAL	DATE		Dispatch interval in which the direction starts. The same value for all regions
DIRECTION_END_INTERVAL	DATE		Dispatch interval in which the direction ends. The same value for all regions
COMPENSATION_AMOUNT	NUMBER(18,8)		The final compensation amount for the direction. The same value for all regions
INTEREST_AMOUNT	NUMBER(18,8)		The interest amount calculated on the final compensation amount for the direction. The same value for all regions
INDEPENDENT_EXPERT_FE	NUMBER(18,8)		The independent expert fee

E			amount for the direction. The same value for all regions
CRA	NUMBER(18,8)		The total recovery amount for the direction. The same value for all regions
REGIONAL_CUSTOMER_ENERGY	NUMBER(18,8)		The total customer energy for this region, over the duration of the direction. NULL for Billing Week post the IESS rule effective date.
REGIONAL_GENERATOR_ENERGY	NUMBER(18,8)		The total generator energy for this region, over the duration of the direction. NULL for Billing Week post the IESS rule effective date.
REGIONAL_BENEFIT_FACTOR	NUMBER(18,8)		The regional benefit factor allocated to this region for the direction
REGION_ACE_MWH	NUMBER(18,8)		The Sum of ACE MWh value for the Region over the duration of the direction. NULL for Billing Week prior to the IESS rule effective date
REGION_ASOE_MWH	NUMBER(18,8)		The Sum of ASOE MWh value for the Region over the duration of the direction. NULL for Billing Week prior to the IESS rule effective date
DIRECTION_SERVICE_ID	VARCHAR2(20)		The Direction Service ID associated with the Direction Type ID. Eg For FCAS Direction Type, Direction Service could be any contingency service.

4.6 Table: BILLING_ENERGY_GENSET_DETAIL

Name BILLING_ENERGY_GENSET_DETAIL

Comment The Billing Energy Genset report contains the Genset Energy detail summary for the Billing Week data

4.6.1 Primary Key Columns

Name

BILLRUNNO

CONNECTIONPOINTID

CONTRACTYEAR

DUID

GENSETID

METERID

PARTICIPANTID

REGIONID

STATIONID

WEEKNO

4.6.2 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4,0)	X	The Billing Contract Year
WEEKNO	NUMBER(3,0)	X	The Billing Week No
BILLRUNNO	NUMBER(4,0)	X	The Billing Run No

PARTICIPANTID	VARCHAR2(20)	X	The Participant Id Identifier
STATIONID	VARCHAR2(20)	X	The StationId identifier associated with the GensetId
DUID	VARCHAR2(20)	X	The DUID for the meter associated with the GensetId
GENSETID	VARCHAR2(20)	X	The GensetId for the Meter Id received
REGIONID	VARCHAR2(20)	X	The Region Id for the Connection Point associated with the DUID
CONNECTIONPOINTID	VARCHAR2(20)	X	The Connection Point associated with the DUID
METERID	VARCHAR2(20)	X	The Meter ID Identifier (NMI)
CE_MWH	NUMBER(18,8)		The Consumed Energy for the Meter Id . Energy received in the meter reads (DLF Adjusted) in that Billing Week
UFEA_MWH	NUMBER(18,8)		The UFEA Energy MWh Consumed for that Connection Point for the Participant Id in that Billing Week
ACE_MWH	NUMBER(18,8)		The Adjusted Consumed Energy MWh Consumed for that Connection Point for the Participant Id in that Billing Week
ASOE_MWH	NUMBER(18,8)		The Adjusted Sent Out Energy MWh Consumed for that Connection Point for the Participant Id in that Billing Week
TOTAL_MWH	NUMBER(18,8)		The Total MWh(ACE_MWh + ASOE_MWh) for that Connection

			Point for the Participant Id in that Billing Week
DME_MWH	NUMBER(18,8)		The DME MWh for that Connection Point for the Participant Id in that Billing Week. This is the MWh value that is used for the UFEA Allocation
ACE_AMOUNT	NUMBER(18,8)		The Adjusted Consumed Energy Dollar Amount for that Connection Point for the Participant Id in that Billing Week
ASOE_AMOUNT	NUMBER(18,8)		The Adjusted Sent Out Energy Dollar Amount for that Connection Point for the Participant Id in that Billing Week
TOTAL_AMOUNT	NUMBER(18,8)		The Total Amount(ACE_Amount + ASOE_Amount) for that Connection Point for the Participant Id in that Billing Week
LASTCHANGED	DATE		The Last changed date time for the record

4.7 Table: BILLING_ENERGY_TRANSACTIONS

Name BILLING_ENERGY_TRANSACTIONS

Comment The Billing Energy Transactions is the summary of the Settlement Energy Transactions that has the ACE and ASOE MWh and Dollar values that is used for the Statement

4.7.1 Primary Key Columns

Name

BILLRUNNO

CONNECTIONPOINTID

CONTRACTYEAR

PARTICIPANTID

REGIONID

WEEKNO

4.7.2 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(4,0)	X	The Billing RunNo
PARTICIPANTID	VARCHAR2(20)	X	The Participant Id Identifier
CONNECTIONPOINTID	VARCHAR2(20)	X	The ConnectionPoint Id for the Billing Aggregation for the Participant Id.

REGIONID	VARCHAR2(20)	X	The Region Id Identifier
CE_MWH	NUMBER(18,8)		The Consumed Energy MWh Consumed for that Connection Point for the Participant Id in that Billing Week
UFEA_MWH	NUMBER(18,8)		The UFEA Energy MWh Consumed for that Connection Point for the Participant Id in that Billing Week
ACE_MWH	NUMBER(18,8)		The Adjusted Consumed Energy MWh Consumed for that Connection Point for the Participant Id in that Billing Week
ASOE_MWH	NUMBER(18,8)		The Adjusted Sent Out Energy MWh Consumed for that Connection Point for the Participant Id in that Billing Week
ACE_AMOUNT	NUMBER(18,8)		The Adjusted Consumed Energy Dollar Amount for that Connection Point for the Participant Id in that Billing Week
ASOE_AMOUNT	NUMBER(18,8)		The Adjusted Sent Out Energy Dollar Amount for that Connection Point for the Participant Id in that Billing Week
TOTAL_MWH	NUMBER(18,8)		The Total MWh(ACE_MWh + ASOE_MWh) for that Connection Point for the Participant Id in that Billing Week
TOTAL_AMOUNT	NUMBER(18,8)		The Total Amount(ACE_Amount + ASOE_Amount) for that Connection Point for the Participant Id in that Billing Week

DME_MWH	NUMBER(18,8)		The DME MWh for that Connection Point for the Participant Id in that Billing Week. This is the MWh value that is used for the UFEA Allocation.
LASTCHANGED	DATE		The Last Changed date time for the record

4.8 Table: BILLING_NMAS_TST_RECOVERY

Name	BILLING_NMAS_TST_RECOVERY
Comment	BILLING_NMAS_TEST_RECOVERY sets out the recovery of NMAS testing payments

4.8.1 Primary Key Columns

Name

BILLRUNNO

CONTRACTID

CONTRACTYEAR

PARTICIPANTID

REGIONID

SERVICE

WEEKNO

4.8.2 Index Columns

Name

LASTCHANGED

4.8.3 Content

Name	Data Type	Mandatory	Comment
CONTRACTYEAR	NUMBER(4,0)	X	AEMO Contract Year number starting in week containing 1 January

WEEKNO	NUMBER(3,0)	X	Week no within the contract year. Week no 1 is the week containing 1 January
BILLRUNNO	NUMBER(3,0)	X	The current Billing RunNo for the week
PARTICIPANTID	VARCHAR(20)	X	The Participant from whom the amount is recovered
SERVICE	VARCHAR(10)	X	The type of NSCAS service. Current value values are: - REACTIVE - LOADSHED - RESTART
CONTRACTID	VARCHAR(10)	X	The NMAS Contract Id
REGIONID	VARCHAR(10)	X	The region from where the amount is recovered
RBF	NUMBER(18,8)		The Benefitting Factor for the RegionId
TEST_PAYMENT	NUMBER(18,8)		The total Testing Payment Amount to recover from all benefitting regions
RECOVERY_START_DATE	DATE		The Recovery Start Date for the Testing Payment Calculation
RECOVERY_END_DATE	DATE		The Recovery End Date for the Testing Payment Calculation
PARTICIPANT_ENERGY	NUMBER(18,8)		The Participant energy in MWh for the recovery period
REGION_ENERGY	NUMBER(18,8)		The RegionId energy in MWh for the recovery period
NEM_ENERGY	NUMBER(18,8)		The NEM energy in MWh for the

			recovery period
CUSTOMER_PROPORTION	NUMBER(18,8)		The Customer Proportion for recovery amount in Percent
GENERATOR_PROPORTION	NUMBER(18,8)		The Generator Proportion for recovery amount in Percent (100-Customer Portion)
PARTICIPANT_GENERATION	NUMBER(18,8)		The Participant Generation for the recovery period
NEM_GENERATION	NUMBER(18,8)		The NEM Generation for the recovery period
RECOVERY_AMOUNT	NUMBER(18,8)		The Total recovery amount for the billing week, being the sum of the customer and generator proportions for the PARTICIPANTID in REGIONID and sum of RecoveryAmount_ACE and RecoveryAmount_ASOE.
LASTCHANGED	DATE		The Last Updated date and time
PARTICIPANT_ACE_MWH	NUMBER(18,8)		The Participant ACE MWh Value used in the Recovery of the Testing Payment Amount if the service is recovered from ACE. NULL for Billing Week prior to the IESS rule effective date
REGION_ACE_MWH	NUMBER(18,8)		The Region ACE MWh Value used in the Recovery of the Testing Payment Amount if the service is recovered from ACE. NULL for Billing Week prior to the IESS rule effective date
ACE_PORTION	NUMBER(18,8)		The Portion of ACE MWh Value used in the Recovery Calculation. . NULL for Billing Week prior to the

			IESS rule effective date
ASOE_PORTION	NUMBER(18,8)		The Portion of ASOE MWh Value used in the Recovery Calculation (100 - ACE_Portion). . NULL for Billing Week prior to the IESS rule effective date
PARTICIPANT_ASOE_MWH	NUMBER(18,8)		The Participant ASOE MWh Value used in the Recovery of the Testing Payment Amount if the service is recovered from ASOE. NULL for Billing Week prior to the IESS rule effective date
REGION_ASOE_MWH	NUMBER(18,8)		The Region ASOE MWh Value used in the Recovery of the Testing Payment Amount if the service is recovered from ASOE. NULL for Billing Week prior to the IESS rule effective date
RECOVERYAMOUNT_ACE	NUMBER(18,8)		The Participant Recovery Amount based on ACE MWh Value if the service is recovered from ACE . NULL for Billing Week prior to the IESS rule effective date
RECOVERYAMOUNT_ASOE	NUMBER(18,8)		The Participant Recovery Amount based on ASOE MWh Value if the service is recovered from ASOE . NULL for Billing Week prior to the IESS rule effective date

4.9 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.

4.9.1 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.

4.9.2 Primary Key Columns

Name

BILLRUNNO

CONTRACTYEAR

PARTICIPANTID

REGIONID

WEEKNO

4.9.3 Index Columns

Name

LASTCHANGED

4.9.4 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. NULL for Billing Week post the IESS rule effective date
LOWER6SEC	NUMBER(15,5)		Lower 6 Sec Recovery. NULL for Billing Week post the IESS rule effective date
RAISE60SEC	NUMBER(15,5)		Raise 60 Sec Recovery. NULL for Billing Week post the IESS rule effective date
LOWER60SEC	NUMBER(15,5)		Lower 60 Sec Recovery. NULL for Billing Week post the IESS rule effective date
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. Post-IESS the value in this column only represent the Testing Payment Recovery from Customers. 0 if no testing payment exists.
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. Post-IESS the value in this column only represent the Testing Payment Recovery from Customers. 0 if no testing payment exists.
SYSTEMRESTART	NUMBER(15,5)		System Restart Recovery. Post-IESS the value in this column only represent the Testing Payment Recovery from Customers. 0 if no testing payment exists
LASTCHANGED	DATE		The latest date and time a file was updated/inserted
RAISE6SEC_GEN	NUMBER(15,5)		Raise 6 Sec Recovery for Generator. NULL for Billing Week post the IESS rule effective date
LOWER6SEC_GEN	NUMBER(15,5)		Lower 6 Sec Recovery for Generator. NULL for Billing Week post the IESS rule effective date
RAISE60SEC_GEN	NUMBER(15,5)		Raise 60 Sec Recovery for Generator. NULL for Billing Week post the IESS rule effective date
LOWER60SEC_GEN	NUMBER(15,5)		Lower 60 Sec Recovery for Generator. NULL for Billing Week post the IESS rule effective date
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. Post-IESS the value in this column only represent the Testing Payment Recovery from Generators. 0 if no testing payment exists.
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. Post-IESS the value in this column only represent the Testing Payment Recovery from Generators. 0 if no testing payment exists.
SYSTEMRESTART_GEN	NUMBER(15,5)		System Restart Recovery for Generator. Post-IESS the value in this column only represent the Testing Payment Recovery from Generators. 0 if no testing payment exists.
LOWER5MIN	NUMBER(15,5)		Recovery amount for the Lower 5 Minute service attributable to customer connection points. NULL for Billing Week post the IESS rule effective date
RAISE5MIN	NUMBER(15,5)		Recovery amount for the Raise 5 Minute service attributable to customer connection points. NULL for Billing Week post the IESS rule effective date

LOWERREG	NUMBER(18,8)		Pre-IESS - Recovery amount for the Lower Regulation service attributable to customer connection points(MPF + Residue). Post-IESS the amount in this column represent only the Lower Regulation FCAS MPF Recovery Amount from Customer and Generator Connection Point MPFs, no Residue Amounts are added to this column value.
RAISEREG	NUMBER(18,8)		Pre-IESS - Recovery amount for the Raise Regulation service attributable to customer connection points(MPF + Residue). Post-IESS the amount in this column represent only the Raise Regulation FCAS MPF Recovery Amount from Customer and Generator Connection Point MPFs, no Residue Amounts are added to this column value.
LOWER5MIN_GEN	NUMBER(16,6)		Recovery amount for the Lower 5 Minute service attributable to generator connection points. NULL for Billing Week post the IESS rule effective date
RAISE5MIN_GEN	NUMBER(16,6)		Recovery amount for the Raise 5 Minute service attributable to generator connection points. NULL for Billing Week post the IESS rule effective date
LOWERREG_GEN	NUMBER(16,6)		Recovery amount for the Lower Regulation service attributable to generator connection points. NULL for Billing Week post the IESS rule

			effective date
RAISEREG_GEN	NUMBER(16,6)		Recovery amount for the Raise Regulation service attributable to generator connection points. NULL for Billing Week post the IESS rule effective date. NULL for Billing Week post the IESS rule effective date.
AVAILABILITY_REACTIVE	NUMBER(18,8)		The total availability payment recovery amount (customer).. NULL for Billing Week post the IESS rule effective date
AVAILABILITY_REACTIVE_RBT	NUMBER(18,8)		The total availability payment rebate recovery amount (customer).. NULL for Billing Week post the IESS rule effective date
AVAILABILITY_REACTIVE_GEN	NUMBER(18,8)		The total availability payment recovery amount (Generator).. NULL for Billing Week post the IESS rule effective date
AVAILABILITY_REACTIVE_RBT_GEN	NUMBER(18,8)		The total availability payment rebate recovery amount (Generator).. NULL for Billing Week post the IESS rule effective date
RAISE1SEC	NUMBER(18,8)		Customer recovery amount for the very fast raise service. NULL for Billing Week post the IESS rule effective date
LOWER1SEC	NUMBER(18,8)		Customer recovery amount for the very fast lower service. NULL for Billing Week post the IESS rule effective date
RAISE1SEC_GEN	NUMBER(18,8)		Generator recovery amount for the very fast raise service. NULL for

			Billing Week post the IESS rule effective date
LOWER1SEC_GEN	NUMBER(18,8)		Generator recovery amount for the very fast lower service. NULL for Billing Week post the IESS rule effective date
LOWERREG_ACE	NUMBER(18,8)		The Lower Regulation FCAS Residue Recovery Amount using ACE MWh values. NULL for Billing Week prior to the IESS rule effective date
RAISEREG_ACE	NUMBER(18,8)		The Raise Regulation FCAS Residue Recovery Amount using ACE MWh values. NULL for Billing Week prior to the IESS rule effective date
RAISE1SEC_ACE	NUMBER(18,8)		The Raise1Sec FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
RAISE1SEC_ASOE	NUMBER(18,8)		The Raise1Sec FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
LOWER1SEC_ACE	NUMBER(18,8)		The Lower1Sec FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
LOWER1SEC_ASOE	NUMBER(18,8)		The Lower1Sec FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL for Billing Week prior to the

			IESS rule effective date
RAISE6SEC_ACE	NUMBER(18,8)		The Raise6Sec FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
RAISE6SEC_ASOE	NUMBER(18,8)		The Raise6Sec FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
LOWER6SEC_ACE	NUMBER(18,8)		The Lower6Sec FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
LOWER6SEC_ASOE	NUMBER(18,8)		The Lower6Sec FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL for Billing Week prior to the IESS rule effective date value.
RAISE60SEC_ACE	NUMBER(18,8)		The Raise60Sec FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
RAISE60SEC_ASOE	NUMBER(18,8)		The Raise60Sec FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
LOWER60SEC_ACE	NUMBER(18,8)		The Lower60Sec FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the

			IESS rule effective date
LOWER60SEC_ASOE	NUMBER(18,8)		The Lower60Sec FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
RAISE5MIN_ACE	NUMBER(18,8)		The Raise5Min FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
RAISE5MIN_ASOE	NUMBER(18,8)		The Raise5Min FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
LOWER5MIN_ACE	NUMBER(18,8)		The Lower5Min FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
LOWER5MIN_ASOE	NUMBER(18,8)		The Lower5Min FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
REACTIVEPOWER_ACE	NUMBER(18,8)		The Reactive Power Ancillary Service Recovery Amount for for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
REACTIVEPOWER_ASOE	NUMBER(18,8)		The Reactive Power Ancillary Service Recovery Amount for for the Participant and Region from

			ASOE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
LOADSHED_ACE	NUMBER(18,8)		The Load Shed Ancillary Service Recovery Amount for for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
LOADSHED_ASOE	NUMBER(18,8)		The Load Shed Ancillary Service Recovery Amount for for the Participant and Region from ASOE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
SYSTEMRESTART_ACE	NUMBER(18,8)		The System Restart Ancillary Service Recovery Amount for for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
SYSTEMRESTART_ASOE	NUMBER(18,8)		The System Restart Ancillary Service Recovery Amount for for the Participant and Region from ASOE MWh Portion. NULL for Billing Week prior to the IESS rule effective date,
AVAILABILITY_REACTIVE_ACE	NUMBER(18,8)		The Reactive Power Ancillary Service Availability Payment Recovery Amount for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
AVAILABILITY_REACTIVE_A	NUMBER(18,8)		The Reactive Power Ancillary

SOE			Service Availability Payment Recovery Amount for the Participant and Region from ASOE MWh Portion. For Pre-IESS Settlement dates this column will have NULL value. For Pre-IESS Settlement dates this column will have NULL value.
AVAILABILITY_REACTIVE_RBT_ACE	NUMBER(18,8)		The Reactive Power Ancillary Service Availability Rebate Payment Recovery Amount for the Participant and Region from ACE MWh Portion. NULL for Billing Week prior to the IESS rule effective date
AVAILABILITY_REACTIVE_RBT_ASOE	NUMBER(18,8)		The Reactive Power Ancillary Service Availability Rebate Payment Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL for Billing Week prior to the IESS rule effective date

4.10 Table: BILLRESERVETRADERRECOVERY

Name BILLRESERVETRADERRECOVERY

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

4.10.1 Primary Key Columns

Name

BILLRUNNO

CONTRACTYEAR

PARTICIPANTID

PAYMENT_ID

PUBLICATION_ID

REGIONID

WEEKNO

4.10.2 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. NULL for Billing Week post the IESS rule effective date.
REGION_DEMAND	NUMBER(18,8)		Region Demand Value used for RERT Recovery. NULL for Billing Week post the IESS rule effective date.
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
PARTICIPANT_ACE_MWH	NUMBER(18,8)		The Participant ACE MWh Value used in the Recovery of the RERT Amount. NULL for Billing Week prior to the IESS rule effective date
REGION_ACE_MWH	NUMBER(18,8)		The Region ACE MWh Value used in the Recovery of the RERT Amount. NULL for Billing Week prior to the IESS rule effective date

5 Package: DISPATCH

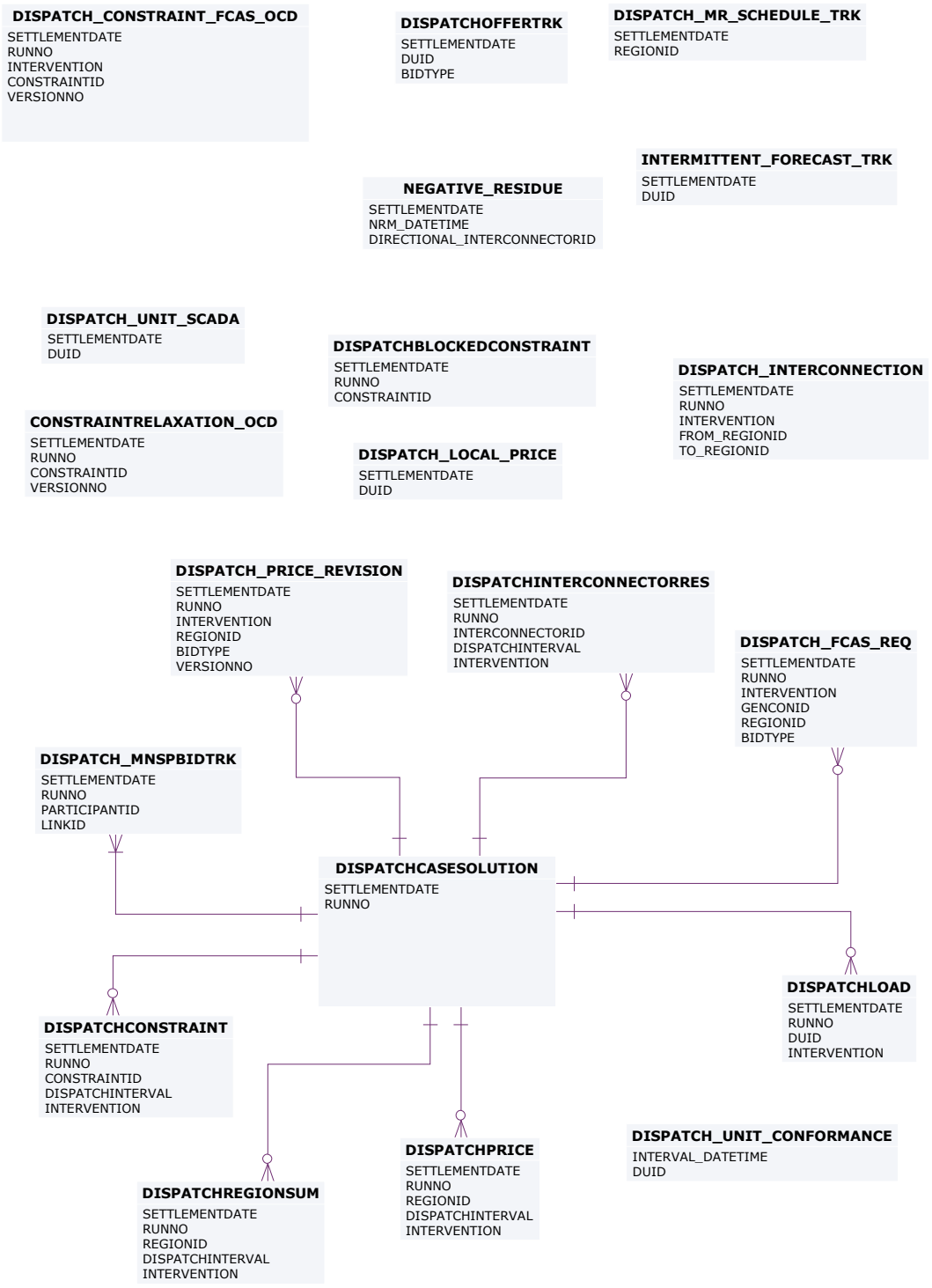
Name DISPATCH

Comment Results from a published Dispatch Run

5.1 List of tables

Name	Comment
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.
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.

5.2 Diagram: Entities: Dispatch



5.3 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.

5.3.1 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.

5.3.2 Primary Key Columns

Name

DUID

INTERVENTION

RUNNO

SETTLEMENTDATE

5.3.3 Index Columns

Name

LASTCHANGED

5.3.4 Index Columns

Name

DUID

LASTCHANGED

5.3.5 Content

Name	Data Type	Mandatory	Comment
SETTLEMENTDATE	DATE	X	Market date and time starting at 04:05
RUNNO	NUMBER(3,0)	X	Dispatch run no; always 1
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. Negative values when Bi-directional Unit start from importing power, otherwise positive.
TOTALCLEARED	NUMBER(15,5)		Target MW for end of period. Negative values when Bi-directional Unit is importing power, otherwise positive.
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
INITIAL_ENERGY_STORAGE	NUMBER(15,5)		BDU only. The energy storage at the start of this dispatch interval (MWh)
ENERGY_STORAGE	NUMBER(15,5)		BDU only. The projected energy storage based on cleared energy and regulation FCAS dispatch (MWh)
MIN_AVAILABILITY	NUMBER(15,5)		BDU only. Load side availability (BidOfferPeriod.MAXAVAIL where DIRECTION = LOAD)

5.4 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.

5.4.1 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).

5.4.2 Primary Key Columns

Name

DISPATCHINTERVAL

INTERVENTION

REGIONID

RUNNO

SETTLEMENTDATE

5.4.3 Index Columns

Name

LASTCHANGED

5.4.4 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
LOWER6SECLOCALVIOLATI	NUMBER(15,5)		Not used since Dec 2003. Violation (MW) of Lower 6 sec local

ON			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_COMPLIA	NUMBER(15,5)		Regional aggregated Semi-Schedule generator Cleared MW

NCEMW			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)
BDU_ENERGY_STORAGE	NUMBER(15,5)		Regional aggregated energy storage where the DUID type is BDU (MWh)
BDU_MIN_AVAIL	NUMBER(15,5)		Total available load side BDU summated for region (MW)
BDU_MAX_AVAIL	NUMBER(15,5)		Total available generation side BDU summated for region (MW)

BDU_CLEAREDMW_GEN	NUMBER(15,5)		Regional aggregated cleared MW where the DUID type is BDU. Net of export (Generation)
BDU_CLEAREDMW_LOAD	NUMBER(15,5)		Regional aggregated cleared MW where the DUID type is BDU. Net of import (Load)

6 Package: MARKET_CONFIG

Name MARKET_CONFIG

Comment Standing data for the market

6.1 List of tables

Name	Comment
FCAS_REGU_USAGE_FACTORS	Stores the proportion of enabled regulation FCAS dispatch that is typically consumed for frequency regulation. Used to calculate the projected state of charge for energy storage systems.
FCAS_REGU_USAGE_FACTORS_TRK	Stores the proportion of enabled regulation FCAS dispatch that is typically consumed for frequency regulation. Used to calculate the projected state of charge for energy storage systems.
TRANSMISSIONLOSSFACTOR	TRANSMISSIONLOSSFACTOR shows the Transmission Loss factors applied at each connection point.

6.2 Table: FCAS_REGU_USAGE_FACTORS

Name FCAS_REGU_USAGE_FACTORS

Comment Stores the proportion of enabled regulation FCAS dispatch that is typically consumed for frequency regulation. Used to calculate the projected state of charge for energy storage systems.

6.2.1 Primary Key Columns

Name

BIDTYPE

EFFECTIVEDATE

PERIODID

REGIONID

VERSIONNO

6.2.2 Content

Name	Data Type	Mandatory	Comment
EFFECTIVEDATE	DATE	X	The effective date for this regulation FCAS usage factor
VERSIONNO	NUMBER(3,0)	X	Version with respect to effective date
REGIONID	VARCHAR2(20)	X	Unique RegionID
BIDTYPE	VARCHAR2(20)	X	The type of regulation FCAS service [RAISEREG,LOWERREG]
PERIODID	NUMBER(3,0)	X	The Period ID (1 - 48) within the calendar day to which this usage

			factor applies
USAGE_FACTOR	NUMBER(8,3)		The proportion of cleared regulation FCAS that is assumed to be used within a dispatch interval. Expressed as a fractional amount between 0 and 1
LASTCHANGED	DATE		The last time the data has been changed/updated

6.3 Table: FCAS_REGU_USAGE_FACTORS_TRK

Name FCAS_REGU_USAGE_FACTORS_TRK

Comment Stores the proportion of enabled regulation FCAS dispatch that is typically consumed for frequency regulation. Used to calculate the projected state of charge for energy storage systems.

6.3.1 Primary Key Columns

Name

EFFECTIVEDATE

VERSIONNO

6.3.2 Content

Name	Data Type	Mandatory	Comment
EFFECTIVEDATE	DATE	X	The effective date for this regulation FCAS usage factor
VERSIONNO	NUMBER(3,0)	X	Version of the date with respect to effective date
AUTHORISEDDATE	DATE		The date time that this set of usage factors was authorised
LASTCHANGED	DATE		The last time the data has been changed/updated

6.4 Table: TRANSMISSIONLOSSFACTOR

Name	TRANSMISSIONLOSSFACTOR
Comment	TRANSMISSIONLOSSFACTOR shows the Transmission Loss factors applied at each connection point.

6.4.1 Description

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

Source

TRANSMISSIONLOSSFACTOR updates when new connection points are created or loss factors change.

6.4.2 Primary Key Columns

Name

CONNECTIONPOINTID

EFFECTIVEDATE

VERSIONNO

6.4.3 Index Columns

Name

LASTCHANGED

6.4.4 Content

Name	Data Type	Mandatory	Comment
TRANSMISSIONLOSSFACTOR	NUMBER(15,5)	X	Used in Bidding, Dispatch and Settlements. For Bidding and Dispatch, where the DUID is a BDU with DISPATCHTYPE of BIDIRECTIONAL, the TLF for the

			load component of the BDU. For Settlements, where dual TLFs apply, the primary TLF is applied to all energy (load and generation) when the Net Energy Flow of the ConnectionPointID in the interval is negative (net load).
EFFECTIVEDATE	DATE	X	Effective date of record
VERSIONNO	NUMBER(22,0)	X	Version no of record for given effective date
CONNECTIONPOINTID	VARCHAR2(10)	X	Connection Point ID
REGIONID	VARCHAR2(10)		Region Identifier
LASTCHANGED	DATE		Record creation timestamp
SECONDARY_TLF	NUMBER(18,8)		Used in Bidding, Dispatch and Settlements, only populated where Dual TLFs apply. For Bidding and Dispatch, the TLF for the generation component of a BDU, when null the TRANSMISSIONLOSSFACTOR is used for both the load and generation components. For Settlements, the secondary TLF is applied to all energy (load and generation) when the Net Energy Flow of the ConnectionPointID in the interval is positive (net generation).

7 Package: P5MIN

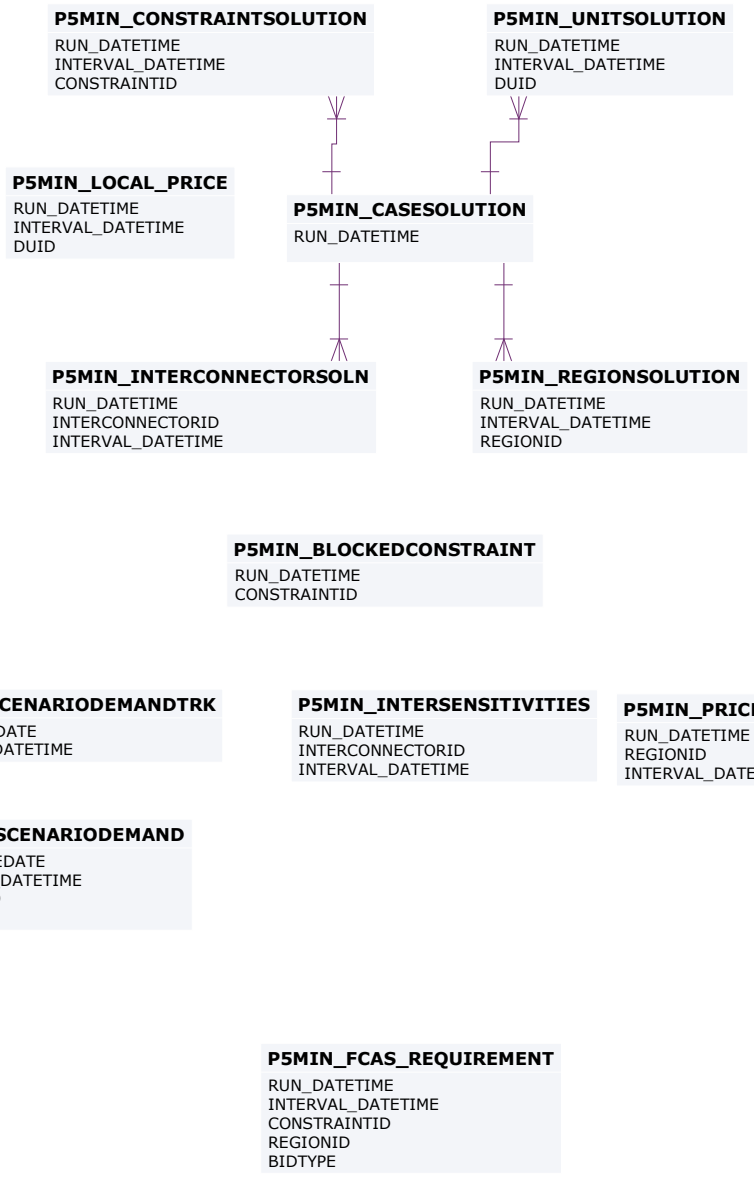
Name P5MIN

Comment Results from a published Five-Minute Predispatch Run

7.1 List of tables

Name	Comment
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.

7.2 Diagram: Entities: P5MIN



7.3 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.

7.3.1 Description

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

Source

P5MIN_REGIONSOLUTION updates every 5 minutes.

Volume

Rows per day: 1440

7.3.2 Primary Key Columns

Name

INTERVAL_DATETIME

REGIONID

RUN_DATETIME

7.3.3 Index Columns

Name

LASTCHANGED

7.3.4 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
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
RAISE6SECLOCALVIOLATIO	NUMBER(15,5)		Not used since Dec 2003. Violation

N			(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
BDU_ENERGY_STORAGE	NUMBER(15,5)		Regional aggregated energy storage where the DUID type is BDU (MWh)
BDU_MIN_AVAIL	NUMBER(15,5)		Total available load side BDU summated for region (MW)
BDU_MAX_AVAIL	NUMBER(15,5)		Total available generation side BDU summated for region (MW)

BDU_CLEAREDMW_GEN	NUMBER(15,5)		Regional aggregated cleared MW where the DUID type is BDU. Net of export (Generation)
BDU_CLEAREDMW_LOAD	NUMBER(15,5)		Regional aggregated cleared MW where the DUID type is BDU. Net of import (Load)

7.4 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.

7.4.1 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

7.4.2 Primary Key Columns

Name

DUID

INTERVAL_DATETIME

RUN_DATETIME

7.4.3 Index Columns

Name

LASTCHANGED

7.4.4 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
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. Negative values when Bi-directional Unit start from importing power, otherwise positive.
TOTALCLEARED	NUMBER(15,5)		Target MW for end of period. Negative values when Bi-directional Unit is importing power,

			otherwise positive.
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
INITIAL_ENERGY_STORAGE	NUMBER(15,5)		BDU only. The energy storage at the start of this dispatch interval (MWh)
ENERGY_STORAGE	NUMBER(15,5)		BDU only. The projected energy storage based on cleared energy and regulation FCAS dispatch (MWh)
ENERGY_STORAGE_MIN	NUMBER(15,5)		BDU only - Minimum Energy Storage constraint limit (MWh)
ENERGY_STORAGE_MAX	NUMBER(15,5)		BDU only - Maximum Energy Storage constraint limit (MWh)
MIN_AVAILABILITY	NUMBER(15,5)		BDU only. Load side availability (BidOfferPeriod.MAXAVAIL where DIRECTION = LOAD).

8 Package: PARTICIPANT_REGISTRATION

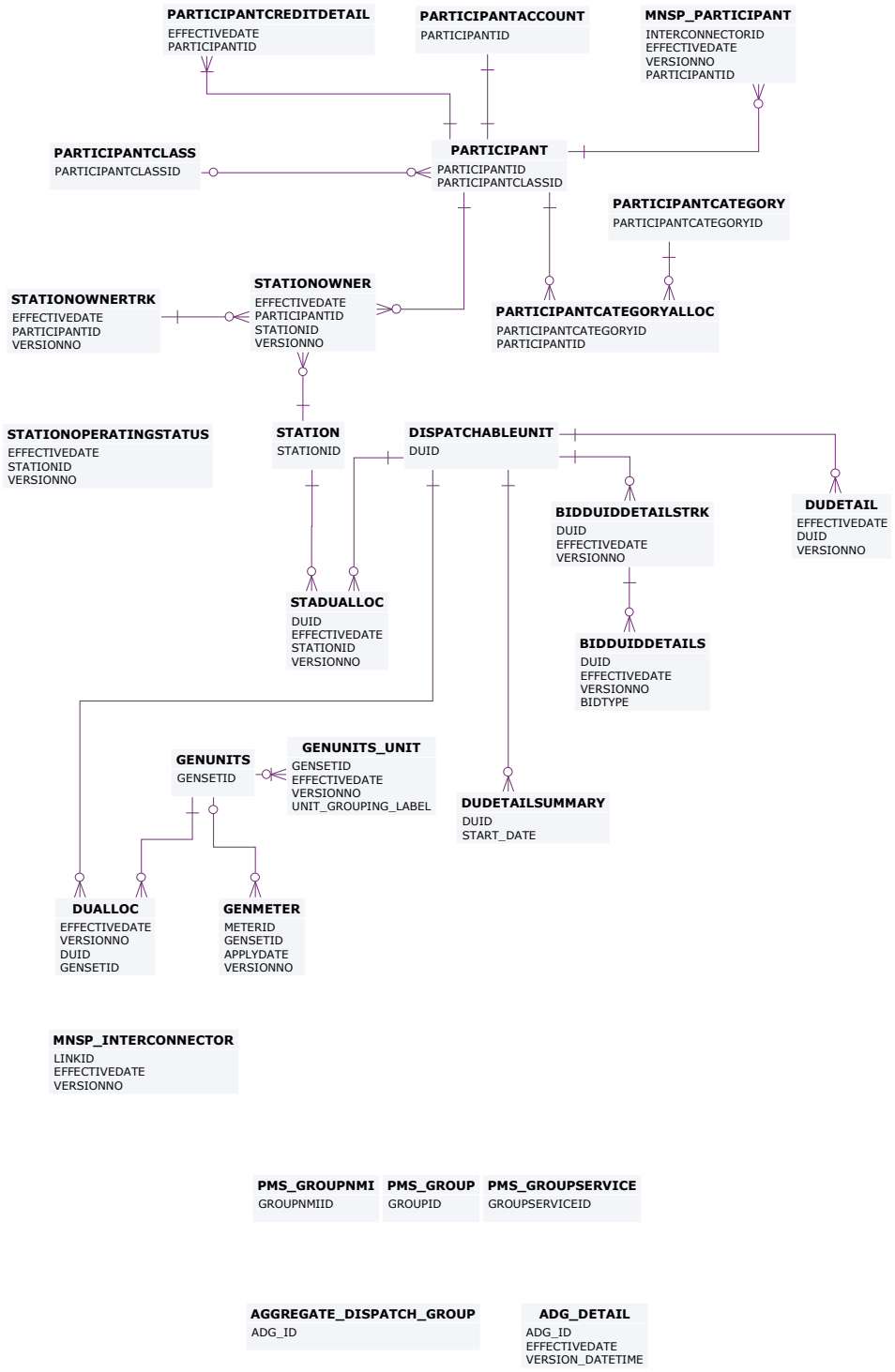
Name PARTICIPANT_REGISTRATION

Comment Participant registration data

8.1 List of tables

Name	Comment
DISPATCHABLEUNIT	DISPATCHABLEUNIT sets out the unit name and type of each dispatchable unit in the market.
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.
GENUNITS	GENUNITS shows Genset details for each physical unit with the relevant station.
GENUNITS_UNIT	Physical units within a Gen Unit Set

8.2 Diagram: Entities: Participant Registration



8.3 Table: DISPATCHABLEUNIT

Name	DISPATCHABLEUNIT
Comment	DISPATCHABLEUNIT sets out the unit name and type of each dispatchable unit in the market.

8.3.1 Description

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

Source

DISPATCHABLEUNIT pdates as new units added or names changed.

8.3.2 Primary Key Columns

Name

DUID

8.3.3 Index Columns

Name

LASTCHANGED

8.3.4 Content

Name	Data Type	Mandatory	Comment
DUID	VARCHAR2(10)	X	Dispatchable Unit Identifier
DUNAME	VARCHAR2(20)		Dispatchable Unit full description
UNITTYPE	VARCHAR2(20)		Identifies LOAD, GENERATOR or BIDIRECTIONAL

LASTCHANGED	DATE		Last date and time record changed

8.4 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.

8.4.1 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.

8.4.2 Primary Key Columns

Name

DUID

EFFECTIVEDATE

VERSIONNO

8.4.3 Index Columns

Name

LASTCHANGED

8.4.4 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, GENERATOR or BIDIRECTIONAL.
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
MINCAPACITY	NUMBER(6,0)		Minimum capacity only for load side of BDU, otherwise 0 (MW)
REGISTEREDMINCAPACITY	NUMBER(6,0)		Registered minimum capacity only for load side of BDU, otherwise 0 (MW)
MAXRATEOFCHANGEUP_LOAD	NUMBER(6,0)		Raise Ramp rate applied to BDU Load component (MW/min)
MAXRATEOFCHANGEDOWN_LOAD	NUMBER(6,0)		Lower Ramp rate applied to BDU Load component (MW/min)
MAXSTORAGECAPACITY	NUMBER(15,5)		The rated storage capacity (MWh), information only
STORAGEIMPORTEFFICIENCYFACTOR	NUMBER(15,5)		The storage energy import conversion efficiency. Number from 0 to 1 where 1 is lossless. Calculated as (increase in stored energy / increase in imported energy)
STORAGEEXPORTEFFICIENCYFACTOR	NUMBER(15,5)		The storage energy export conversion efficiency. Number from 0 to 1 where 1 is lossless. Calculated as (decrease in exported energy / decrease in stored energy)
MIN_RAMP_RATE_UP	NUMBER(6,0)		Calculated Minimum Ramp Rate Up value accepted for Energy Offers or Bids with explanation for energy imports (all DUID types and BDU Generation side) (MW/min)
MIN_RAMP_RATE_DOWN	NUMBER(6,0)		Calculated Minimum Ramp Rate Down value accepted for Energy Offers or Bids with explanation for

			energy imports (all DUID types and BDU Generation side) (MW/min)
LOAD_MIN_RAMP_RATE_UP	NUMBER(6,0)		Calculated Minimum Ramp Rate Up value accepted for Energy Offers or Bids on BDU Load component with explanation for energy imports (MW/min)
LOAD_MIN_RAMP_RATE_DOWN	NUMBER(6,0)		Calculated Minimum Ramp Rate Down value accepted for Energy Offers or Bids on BDU Load component with explanation for energy imports (MW/min)

8.5 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.

8.5.1 Description

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

Source

DUDETAILSUMMARY updates only when registration details change.

8.5.2 Primary Key Columns

Name

DUID

START_DATE

8.5.3 Index Columns

Name

LASTCHANGED

8.5.4 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, GENERATOR or BIDIRECTIONAL. 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)		Used in Bidding, Dispatch and Settlements. For Bidding and Dispatch, where the DUID is a BDU with DISPATCHTYPE of BIDIRECTIONAL, the TLF for the load component of the BDU. For Settlements, where dual TLFs apply, the primary TLF is applied to all energy (load and generation) when the Net Energy Flow of the ConnectionPointID in the interval is negative (net load).
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. Group into which the DUID is aggregated for Conformance. Null if DUID not aggregated for Conformance
LOAD_MINIMUM_ENERGY_PRICE	NUMBER(9,2)		BDU only. Floored Offer/Bid Energy Price adjusted for TLF, DLF and MPF for energy imports
LOAD_MAXIMUM_ENERGY_PRICE	NUMBER(9,2)		BDU only. Capped Offer/Bid Energy Price adjusted for TLF, DLF and VoLL for energy imports
LOAD_MIN_RAMP_RATE_UP	NUMBER(6,0)		BDU only. MW/Min. Calculated Minimum Ramp Rate Up value accepted for Energy Offers or Bids with explanation for energy imports
LOAD_MIN_RAMP_RATE_DOWN	NUMBER(6,0)		BDU only. MW/Min. Calculated Minimum Ramp Rate Down value accepted for Energy Offers or Bids with explanation for energy imports
LOAD_MAX_RAMP_RATE_UP	NUMBER(6,0)		BDU only. MW/Min. Registered Maximum Ramp Rate Up value accepted for Energy Offers or Bids for energy imports
LOAD_MAX_RAMP_RATE_DOWN	NUMBER(6,0)		BDU only. MW/Min. Registered Maximum Ramp Rate Down value accepted for Energy Offers or Bids for energy imports
SECONDARY_TLF	NUMBER(18,8)		Used in Bidding, Dispatch and Settlements, only populated where Dual TLFs apply. For Bidding and Dispatch, the TLF for the generation component of a BDU,

			when null the TRANSMISSIONLOSSFACTOR is used for both the load and generation components. For Settlements, the secondary TLF is applied to all energy (load and generation) when the Net Energy Flow of the ConnectionPointID in the interval is positive (net generation).

8.6 Table: GENUNITS

Name GENUNITS

Comment GENUNITS shows Genset details for each physical unit with the relevant station.

8.6.1 Description

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

Source

GENUNITS updates whenever plant details change.

8.6.2 Primary Key Columns

Name

GENSETID

8.6.3 Index Columns

Name

LASTCHANGED

8.6.4 Content

Name	Data Type	Mandatory	Comment
GENSETID	VARCHAR2(20)	X	Physical Unit identifier
STATIONID	VARCHAR2(10)		Station Identifier
SETLOSSFACTOR	NUMBER(16,6)		Not used
CDINDICATOR	VARCHAR2(10)		Centrally dispatched Indicator

AGCFLAG	VARCHAR2(2)		AGC Available flag
SPINNINGFLAG	VARCHAR2(2)		Not used
VOLTLEVEL	NUMBER(6,0)		Voltage level
REGISTEREDCAPACITY	NUMBER(6,0)		Registered capacity
DISPATCHTYPE	VARCHAR2(20)		Identifies LOAD, GENERATOR or BIDIRECTIONAL. This will likely expand to more generic models as new technology types are integrated into the NEM.
STARTTYPE	VARCHAR2(20)		Fast / Slow / Not Dispatched
MKTGENERATORIND	VARCHAR2(10)		Market Generator Indicator Flag
NORMALSTATUS	VARCHAR2(10)		On / Off for load
MAXCAPACITY	NUMBER(6,0)		Maximum capacity
GENSETTYPE	VARCHAR2(15)		Genset type
GENSETNAME	VARCHAR2(40)		Genset name
LASTCHANGED	DATE		Last date and time record changed
CO2E_EMISSIONS_FACTOR	NUMBER(18,8)		The emissions factor for the generating unit, as calculated by Settlements staff members
CO2E_ENERGY_SOURCE	VARCHAR2(100)		The energy source for the generating unit, as used in the calculation of the CO2-e emissions factor. Distinct from the Energy Source for a generating unit

			published as part of the Registration Master List
CO2E_DATA_SOURCE	VARCHAR2(20)		An indicator as to the source of the emission factor used in the calculation of the index. The applicable values for this field would be NTNDP which indicates the emission factor is quoted from the National Transmission Network Development Plan or Estimated to indicate the emission factor has been calculated using an internal AEMO procedure based upon the Department of Climate Change and Energy Efficiency NGA factors
MINCAPACITY	NUMBER(6,0)		Minimum capacity only for load side of BDU, otherwise 0 (MW)
REGISTEREDMINCAPACITY	NUMBER(6,0)		Registered minimum capacity only for load side of BDU, otherwise 0 (MW)
MAXSTORAGECAPACITY	NUMBER(15,5)		The rated storage capacity (MWh), information only

8.7 Table: GENUNITS_UNIT

Name GENUNITS_UNIT

Comment Physical units within a Gen Unit Set

8.7.1 Primary Key Columns

Name

EFFECTIVEDATE

GENSETID

UNIT_GROUPING_LABEL

VERSIONNO

8.7.2 Index Columns

Name

GENSETID

EFFECTIVEDATE

VERSIONNO

UNIT_GROUPING_LABEL

8.7.3 Content

Name	Data Type	Mandatory	Comment
GENSETID	VARCHAR2(20)	X	System wide unique Generating Set ID
EFFECTIVEDATE	DATE	X	Effective Date of this detail record

VERSIONNO	NUMBER(6,0)	X	Version with respect to the effective date
UNIT_GROUPING_LABEL	VARCHAR2(20)	X	Label of Physical Units within the station
UNIT_COUNT	NUMBER(10,0)		Number of units in this Gen Unit grouping
UNIT_SIZE	NUMBER(8,3)		Nameplate Capacity for each unit in this grouping
UNIT_MAX_SIZE	NUMBER(8,3)		Maximum Capacity for each unit in this grouping
AGGREGATION_FLAG	NUMBER(1,0)		Indicator that Unit is part of an Aggregated Unit (at the DUID level)
LASTCHANGED	DATE		Date/Time when record was changed
UNITMINSIZE	NUMBER(8,3)		Only applicable for the LOAD side of BDU (MW)
MAXSTORAGECAPACITY	NUMBER(15,5)		The rated storage capacity (MWh), information only
REGISTEREDCAPACITY	NUMBER(8,3)		Registered capacity for normal operations
REGISTEREDMINCAPACITY	NUMBER(8,3)		Only applicable for the LOAD side of BDU (MW)

9 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.

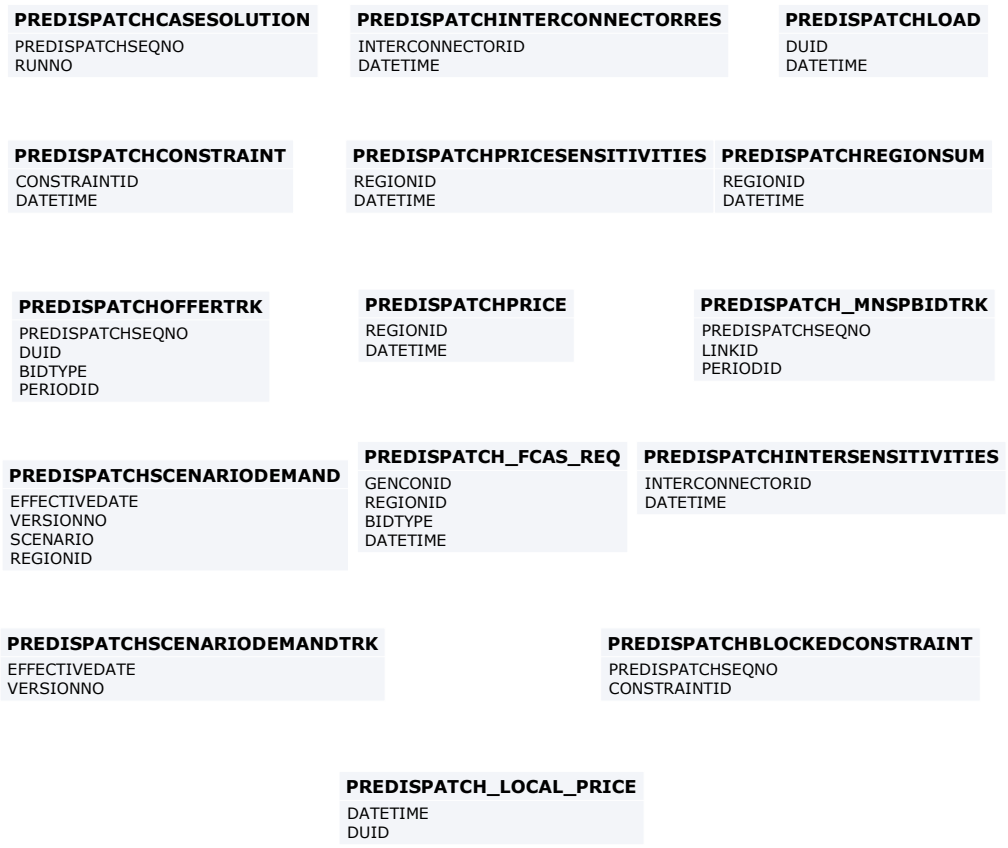
The TRANSACTION_TYPE default in the PDR_REPORT_RECORDS management tables for PREDISPATCH* tables is UPDATE-INSERT. You can modify this to INSERT for Option 2b, as the attempt to first perform an update becomes redundant. This can improve load performance.

9.1 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.
PREDISPATCHREGIONSUM	PREDISPATCHREGIONSUM sets out the overall regional Pre-Dispatch results for base case details (excluding price).

9.2 Diagram: Entities: Predispatch



9.3 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.

9.3.1 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.

9.3.2 Primary Key Columns

Name

DATETIME

DUID

9.3.3 Index Columns

Name

LASTCHANGED

9.3.4 Index Columns

Name

DUID

LASTCHANGED

9.3.5 Index Columns

Name

PREDISPATCHSEQNO

9.3.6 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. Negative values when Bi-directional Unit start from importing power, otherwise positive.
TOTALCLEARED	NUMBER(15,5)		Target MW for end of period. Negative values when Bi-directional Unit is importing power, otherwise positive.
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

LOWERREGACTUALAVAILABILITY	NUMBER(16,6)		trapezium adjusted lower reg availability
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
INITIAL_ENERGY_STORAGE	NUMBER(15,5)		BDU only. The energy storage at the start of this dispatch interval (MWh)
ENERGY_STORAGE	NUMBER(15,5)		BDU only. The projected energy

			storage based on cleared energy and regulation FCAS dispatch (MWh). Participants may use negative values as an indicator of the relative “error” in profiling Max Availability to reflect energy limits
ENERGY_STORAGE_MIN	NUMBER(15,5)		BDU only - Minimum Energy Storage constraint limit (MWh)
ENERGY_STORAGE_MAX	NUMBER(15,5)		BDU only - Maximum Energy Storage constraint limit (MWh)
MIN_AVAILABILITY	NUMBER(15,5)		BDU only. Load side availability (BidOfferPeriod.MAXAVAIL where DIRECTION = LOAD)

9.4 Table: PREDISPATCHREGIONSUM

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

9.4.1 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).

9.4.2 Primary Key Columns

Name

DATETIME

REGIONID

9.4.3 Index Columns

Name

LASTCHANGED

9.4.4 Index Columns

Name

PREDISPATCHSEQNO

9.4.5 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 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
RAISE1SECACTUALAVAILA	NUMBER(16,6)		Trapezium adjusted Raise1Sec availability (summated from

BILITY			UnitSolution)
LOWER1SECACTUALAVAILABILITY	NUMBER(16,6)		Trapezium adjusted Lower1Sec availability (summated from UnitSolution)
BDU_ENERGY_STORAGE	NUMBER(15,5)		Regional aggregated energy storage where the DUID type is BDU (MWh)
BDU_MIN_AVAIL	NUMBER(15,5)		Total available load side BDU summated for region (MW)
BDU_MAX_AVAIL	NUMBER(15,5)		Total available generation side BDU summated for region (MW)
BDU_CLEAREDMW_GEN	NUMBER(15,5)		Regional aggregated cleared MW where the DUID type is BDU. Net of export (Generation)
BDU_CLEAREDMW_LOAD	NUMBER(15,5)		Regional aggregated cleared MW where the DUID type is BDU. Net of import (Load)

10 Package: SETTLEMENT_CONFIG

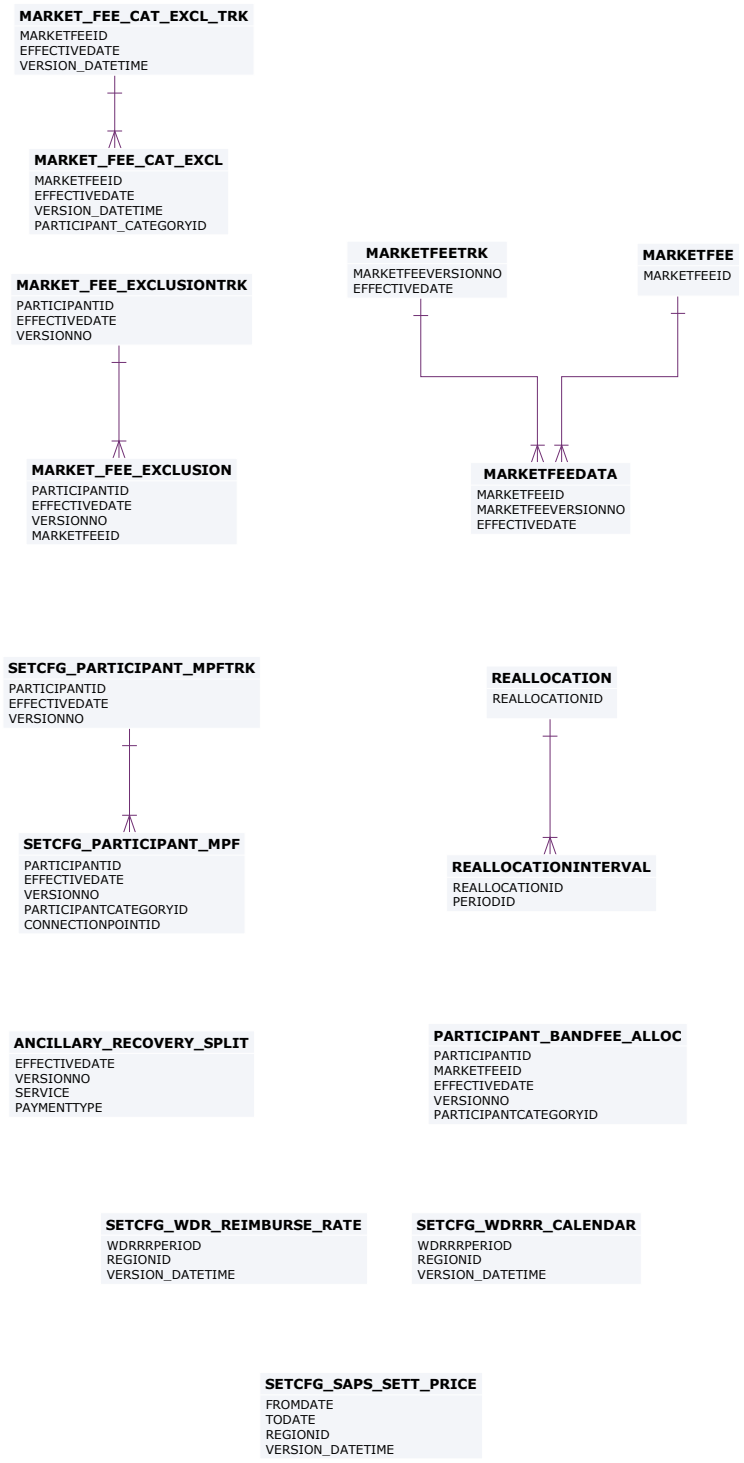
Name SETTLEMENT_CONFIG

Comment Configuration and input data for the Settlements Process

10.1 List of tables

Name	Comment
ANCILLARY_RECOVERY_SPLIT	ANCILLARY_RECOVERY_SPLIT holds the actual customer portion for each service and payment type. A single EFFECTIVEDATE/VERSIONNO combination applies to all services (i.e. the latest EFFECTIVEDATE/VERSIONNO is not retrieved for a single service, but applies to a data set).
MARKETFEE	MARKETFEE sets out fee type and period for each market fee.

10.2 Diagram: Entities: Settlement Config



10.3 Table: ANCILLARY_RECOVERY_SPLIT

Name	ANCILLARY_RECOVERY_SPLIT
Comment	ANCILLARY_RECOVERY_SPLIT holds the actual customer portion for each service and payment type. A single EFFECTIVEDATE/VERSIONNO combination applies to all services (i.e. the latest EFFECTIVEDATE/VERSIONNO is not retrieved for a single service, but applies to a data set).

10.3.1 Description

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

Source

This table is updated infrequently.

10.3.2 Primary Key Columns

Name

EFFECTIVEDATE

PAYMENTTYPE

SERVICE

VERSIONNO

10.3.3 Index Columns

Name

LASTCHANGED

10.3.4 Content

Name	Data Type	Mandatory	Comment
EFFECTIVEDATE	DATE	X	Calendar settlement date record

			becomes effective.
VERSIONNO	NUMBER(3,0)	X	Version number of the record for the given date.
SERVICE	VARCHAR2(10)	X	Ancillary service name (e.g. AGC, FCASCOMP)
PAYMENTTYPE	VARCHAR2(20)	X	A payment type associated with the service (can be ENABLING, AVAILABILITY, USAGE, or COMPENSATION).
CUSTOMER_PORTION	NUMBER(8,5)		The percentage value of the recovery funded by market customers.
LASTCHANGED	DATE		Last date and time record changed
ACE_PORTION	NUMBER(18,8)		The percentage value of the recovery funded using the ACE MWh Values. This field is only used for Settlement post IESS rule effective date.

10.4 Table: MARKETFEE

Name MARKETFEE

Comment MARKETFEE sets out fee type and period for each market fee.

10.4.1 Description

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

Source

MARKETFEE updates when fees change.

10.4.2 Primary Key Columns

Name

MARKETFEEID

10.4.3 Index Columns

Name

LASTCHANGED

10.4.4 Content

Name	Data Type	Mandatory	Comment
MARKETFEEID	VARCHAR2(10)	X	Identifier for Market Fee
MARKETFEEPERIOD	VARCHAR2(20)		Period type - PERIOD, DAILY, WEEKLY
MARKETFEETYPE	VARCHAR2(12)		Type - MW or $
DESCRIPTION	VARCHAR2(64		Description of market fee

	)		
LASTCHANGED	DATE		Last date and time record changed
GL_TCODE	VARCHAR2(15)		
GL_FINANCIALCODE	VARCHAR2(10)		
FEE_CLASS	VARCHAR2(40)		
METER_TYPE	VARCHAR2(20)		The Energy Type for the Market Fees Calculation. E.g of Meter Types are CUSTOMER, GENERATOR, NREG, BDU etc. If Meter Type is mentioned as ALL then all the Meter Types for that Participant Category will be used in the Fee calculation
METER_SUBTYPE	VARCHAR2(20)		The Meter Sub Type values are ACE, ASOE or ALL. ACE represent ACE_MWH value , ASOE represent ASOE_MWH value and ALL represent sum of ACE_MWh and ASOE_MWh

11 Package: SETTLEMENT_DATA

Name SETTLEMENT_DATA

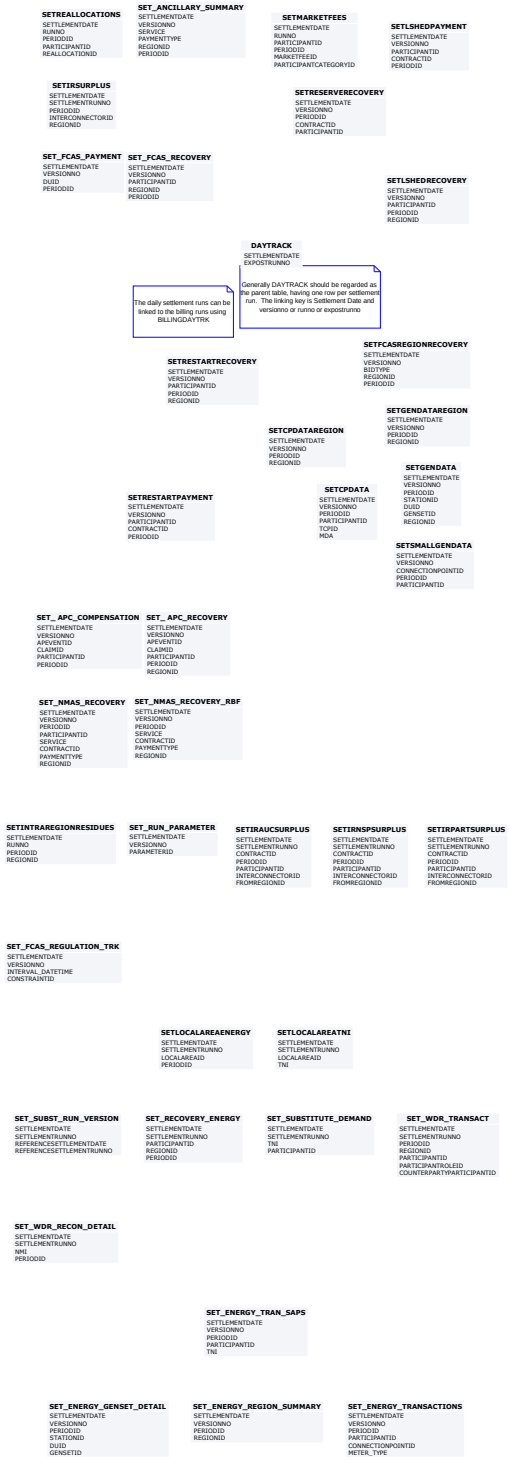
Comment Results from a published Settlements Run. The settlement data and billing run data are updated daily between 6am and 8am for AEMO's prudential processes. In a normal week, AEMO publishes one PRELIM, one FINAL and two REVISION runs in addition to the daily runs.

11.1 List of tables

Name	Comment
SET_ENERGY_GENSET_DETAIL	The Settlement Energy Genset report contains the Energy Transactions data for each generation meter point.. This report is produced only for Settlement Date post the IESS rule effective date.
SET_ENERGY_REGION_SUMMARY	The Settlement Energy Region Summary report contains the Energy Transactions Summary for all the NEM regions. This report is produced only for Settlement Date post the IESS rule effective date.
SET_ENERGY_TRANSACTIONS	The Settlement Energy Transactions report contains the Energy Transactions data for all the Participants based on their ACE and ASOE at each customer and generator Connection Point ID. This table is populated The Settlement Energy Transactions report contains the Energy Transactions data for all the Participants based on their ACE and ASOE at each customer and generator Connection Point ID. This table is populated only if Settlement Date is post the IESS rule effective date.
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).

SET_NMAS_RECOVERY	SET_NMAS_RECOVERY sets out the NSCAS recovery data for payments other than testing.
SET_RECOVERY_ENERGY	Settlements substitution recovery energy used
SETFCASREGIONRECOVERY	The FCAS Recovery amount from each NEM Region and the Energy MWh used for the FCAS Recovery calculation from Participants
SETINTRAREGIONRESIDUES	The Settlement Intra Region Residues Result.
SETMARKETFEES	SETMARKETFEES shows payments for market fees for each settlement date.

11.2 Diagram: Entities: Settlement Data



11.3 Table: SET_ENERGY_GENSET_DETAIL

Name SET_ENERGY_GENSET_DETAIL

Comment The Settlement Energy Genset report contains the Energy Transactions data for each generation meter point.. This report is produced only for Settlement Date post the IESS rule effective date.

11.3.1 Primary Key Columns

Name

DUID

GENSETID

PERIODID

SETTLEMENTDATE

STATIONID

VERSIONNO

11.3.2 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)		The Participant Id Identifier
STATIONID	VARCHAR2(20)	X	The StationId identifier associated with the GensetId

DUID	VARCHAR2(20)	X	The DUID for the meter associated with the GensetId
GENSETID	VARCHAR2(20)	X	The GensetId for the Meter Id received
REGIONID	VARCHAR2(20)		The Region Id for the Connection Point associated with the DUID
CONNECTIONPOINTID	VARCHAR2(20)		The Connection Point associated with the DUID
RRP	NUMBER(18,8)		The Regional Reference Price for the Settlement Period
TLF	NUMBER(18,8)		The Transmission Loss Factor applied to the Connection Point Id. TLF is calculated based on the Net Flow at the TNI.
METERID	VARCHAR2(20)		The Meter ID Identifier (NMI)
CE_MWH	NUMBER(18,8)		The Consumed Energy for the Meter Id . Energy received in the meter reads (DLF Adjusted)
UFEA_MWH	NUMBER(18,8)		The UFEA allocation amount applied to the Meter Data
ACE_MWH	NUMBER(18,8)		The Adjusted Consumed Energy for the Meter Id (CE_MWh + UFEA)
ASOE_MWH	NUMBER(18,8)		The Adjusted Sent Out Energy for the Meter Id.
TOTAL_MWH	NUMBER(18,8)		The Total MWh for the Meter Id (ACE_MWh + ASOE_MWh)
DME_MWH	NUMBER(18,8)		The DME MWh value that is used to calculate the UFEA Allocation Amount

ACE_AMOUNT	NUMBER(18,8)		The Adjusted Consumed Energy Dollar Amount
ASOE_AMOUNT	NUMBER(18,8)		The Adjusted Sent Out Energy Dollar Amount
TOTAL_AMOUNT	NUMBER(18,8)		The Total Amount for the Meter Id (ACE_Amount + ASOE_Amount)
LASTCHANGED	DATE		The Last changed Date time of the record

11.4 Table: SET_ENERGY_REGION_SUMMARY

Name SET_ENERGY_REGION_SUMMARY

Comment The Settlement Energy Region Summary report contains the Energy Transactions Summary for all the NEM regions. This report is produced only for Settlement Date post the IESS rule effective date.

11.4.1 Primary Key Columns

Name

PERIODID

REGIONID

SETTLEMENTDATE

VERSIONNO

11.4.2 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
REGIONID	VARCHAR2(20)	X	The NEM Region Id Identifier
CE_MWH	NUMBER(18,8)		The Consumed Energy summary for the Region Id
UFEA_MWH	NUMBER(18,8)		The UFEA Energy summary for the Region Id
ACE_MWH	NUMBER(18,8)		The Adjusted Consumed Energy

			summary for the Region Id
ASOE_MWH	NUMBER(18,8)		The Adjusted Sent Out Energy summary for the Region Id
ACE_AMOUNT	NUMBER(18,8)		The Adjusted Consumed Energy Amount for the Region Id
ASOE_AMOUNT	NUMBER(18,8)		The Adjusted Sent Out Energy Amount for the Region Id
TOTAL_MWH	NUMBER(18,8)		The Total Energy summary for the Region Id
TOTAL_AMOUNT	NUMBER(18,8)		The Total Dollar Amount summary for the Region Id
LASTCHANGED	DATE		The Last changed Date time of the record

11.5 Table: SET_ENERGY_TRANSACTIONS

Name SET_ENERGY_TRANSACTIONS

Comment The Settlement Energy Transactions report contains the Energy Transactions data for all the Participants based on their ACE and ASOE at each customer and generator Connection Point ID. This table is populated The Settlement Energy Transactions report contains the Energy Transactions data for all the Participants based on their ACE and ASOE at each customer and generator Connection Point ID. This table is populated only if Settlement Date is post the IESS rule effective date.

11.5.1 Primary Key Columns

Name

CONNECTIONPOINTID

METER_TYPE

PARTICIPANTID

PERIODID

SETTLEMENTDATE

VERSIONNO

11.5.2 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 Identifier

CONNECTIONPOINTID	VARCHAR2(20)	X	The Connection Point associated with the Energy Transaction reads.
METER_TYPE	VARCHAR2(20)	X	The type of meter reads received. Eg Customer, Generator, BDU, NREG etc.
REGIONID	VARCHAR2(20)		The NEM Region Id Identifier
RRP	NUMBER(18,8)		The Regional Reference Price for the Region
TLF	NUMBER(18,8)		The Transmission Loss Factor applied to the Connection Point Id. TLF is calculated based on the Net Flow at the TNI.
CE_MWH	NUMBER(18,8)		The Consumed Energy . Energy received in the meter reads (DLF Adjusted)
UFEA_MWH	NUMBER(18,8)		The UFE Allocation Amount applied to the Participant
ACE_MWH	NUMBER(18,8)		The Adjusted Consumed Energy MWh (CE_MWh + UFEA) for the ConnectionPointId
ASOE_MWH	NUMBER(18,8)		The Adjusted Sent Out Energy for the ConnectionPointId . Energy received in the meter reads adjusted by DLF.
TOTAL_MWH	NUMBER(18,8)		The Total MWh Value for the Participant. ACE_MWh + ASOE_MWh
ACE_AMOUNT	NUMBER(18,8)		The dollar amount for Adjusted Consumed Energy MWh (ACE_MWh * TLF * RRP)

ASOE_AMOUNT	NUMBER(18,8)		The dollar amount for Adjusted Sent Out Energy MWh (ASOE_MWh * TLF * RRP)
TOTAL_AMOUNT	NUMBER(18,8)		The Total Dollar Value for the Participant. ACE_Amount + ASOE_Amount
CASE_ID	NUMBER(10,0)		The Metering Case ID
DME_MWH	NUMBER(18,8)		The DME MWh (Distribution Connected) that is used in the UFEA Calculation.
AGGREGATE_READ_FLAG	NUMBER(3,0)		The Flag is 1 if the meter data source is from Aggregate Reads Meter Data, Else 0
INDIVIDUAL_READ_FLAG	NUMBER(3,0)		The Flag is 1 if the meter data source is from Individual Reads Meter Data, Else 0
LASTCHANGED	DATE		The Last changed Date time of the record

11.6 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).

11.6.1 Description

SET_FCAS_RECOVERY data is confidential to the relevant participant.

Volume

Approximately 1, 500, 000 per week.

11.6.2 Primary Key Columns

Name

PARTICIPANTID

PERIODID

REGIONID

SETTLEMENTDATE

VERSIONNO

11.6.3 Index Columns

Name

LASTCHANGED

11.6.4 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. NULL for Settlement date post the IESS rule effective date
RAISE6SEC_RECOVERY	NUMBER(18,8)		Recovery amount for the Raise 6 Second service attributable to customer connection points. NULL for Settlement dates post the IESS rule effective date
LOWER60SEC_RECOVERY	NUMBER(18,8)		Recovery amount for the Lower 60 Second service attributable to customer connection points. NULL for Settlement dates post the IESS rule effective date
RAISE60SEC_RECOVERY	NUMBER(18,8)		Recovery amount for the Raise 60 Second service attributable to customer connection points. NULL for Settlement dates post the IESS rule effective date
LOWER5MIN_RECOVERY	NUMBER(18,8)		Recovery amount for the Lower 5 Minute service attributable to customer connection points. NULL for Settlement dates post the IESS rule effective date

RAISE5MIN_RECOVERY	NUMBER(18,8)		Recovery amount for the Raise 5 Minute service attributable to customer connection points. NULL for Settlement dates post the IESS rule effective date
LOWERREG_RECOVERY	NUMBER(18,8)		For a Settlement date prior to the IESS rule effective date, the column represent Sum of MPF Lower Regulation recovery amount from Customer Connection Points and the Residue Recovery amount from Customers excluding the MPF Connection Points. For Settlement Date post the IESS rule effective date the column represent the Lower Regulation FCAS MPF Recovery Amount from Customer and Generator Connection Point MPFs only. Residue Recovery Amount is not included in this amount.
RAISEREG_RECOVERY	NUMBER(18,8)		For a Settlement date prior to the IESS rule effective date, the column represent Sum of MPF Raise Regulation recovery amount from Customer Connection Points and the Residue Recovery amount from Customers excluding the MPF Connection Points. For Settlement Date post the IESS rule effective date the column represent the Raise Regulation FCAS MPF Recovery Amount from Customer and Generator Connection Point MPFs only. Residue Recovery Amount is not included in this amount.

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. NULL for Settlement dates post the IESS rule effective date
RAISE6SEC_RECOVERY_GEN	NUMBER(18,8)		Recovery amount for the Raise 6 Second service attributable to generator connection points. NULL for Settlement dates post the IESS rule effective date
LOWER60SEC_RECOVERY_GEN	NUMBER(18,8)		Recovery amount for the Lower 60 Second service attributable to generator connection points. NULL for Settlement dates post the IESS rule effective date
RAISE60SEC_RECOVERY_GEN	NUMBER(18,8)		Recovery amount for the Raise 60 Second service attributable to generator connection points. NULL for Settlement dates post the IESS rule effective date
LOWER5MIN_RECOVERY_GEN	NUMBER(18,8)		Recovery amount for the Lower 5 Minute service attributable to generator connection points. NULL for Settlement dates post the IESS rule effective date
RAISE5MIN_RECOVERY_GEN	NUMBER(18,8)		Recovery amount for the Raise 5 Minute service attributable to generator connection points. NULL for Settlement dates post the IESS rule effective date
LOWERREG_RECOVERY_GEN	NUMBER(18,8)		For Settlement date prior to the IESS rule effective date, the column represent Sum of MPF Lower

			Regulation recovery amount from Generator Connection Points. NULL for Settlement dates post the IESS rule effective date.
RAISEREG_RECOVERY_GEN	NUMBER(18,8)		For Settlement date prior to the IESS rule effective date, the column represent Sum of MPF Raise Regulation recovery amount from Generator Connection Points. NULL for Settlement dates post the IESS rule effective date.
RAISE1SEC_RECOVERY	NUMBER(18,8)		Customer recovery amount for the very fast raise service. NULL for Settlement dates post the IESS rule effective date
LOWER1SEC_RECOVERY	NUMBER(18,8)		Customer recovery amount for the very fast lower service. NULL for Settlement dates post the IESS rule effective date
RAISE1SEC_RECOVERY_GEN	NUMBER(18,8)		Generator recovery amount for the very fast raise service. NULL for Settlement dates post the IESS rule effective date
LOWER1SEC_RECOVERY_GEN	NUMBER(18,8)		Generator recovery amount for the very fast lower service. NULL for Settlement dates post the IESS rule effective date
LOWERREG_ACE	NUMBER(18,8)		The Lower Regulation FCAS Residue Recovery Amount using ACE MWh values excluding the MPF Connection Points. NULL value for Settlement Dates prior to the IESS rule effective date.
RAISEREG_ACE	NUMBER(18,8)		The Raise Regulation FCAS Residue Recovery Amount using ACE MWh

			values excluding the MPF Connection Points. NULL Value for Settlement Dates prior to the IESS rule effective date.
RAISE1SEC_ACE	NUMBER(18,8)		The Raise1Sec FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
RAISE1SEC_ASOE	NUMBER(18,8)		The Raise1Sec FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
LOWER1SEC_ACE	NUMBER(18,8)		The Lower1Sec FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
LOWER1SEC_ASOE	NUMBER(18,8)		The Lower1Sec FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
RAISE6SEC_ACE	NUMBER(18,8)		The Raise6Sec FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
RAISE6SEC_ASOE	NUMBER(18,8)		The Raise6Sec FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.

LOWER6SEC_ACE	NUMBER(18,8)		The Lower6Sec FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
LOWER6SEC_ASOE	NUMBER(18,8)		The Lower6Sec FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
RAISE60SEC_ACE	NUMBER(18,8)		The Raise60Sec FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
RAISE60SEC_ASOE	NUMBER(18,8)		The Raise60Sec FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
LOWER60SEC_ACE	NUMBER(18,8)		The Lower60Sec FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
LOWER60SEC_ASOE	NUMBER(18,8)		The Lower60Sec FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
RAISE5MIN_ACE	NUMBER(18,8)		The Raise5Min FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.

RAISE5MIN_ASOE	NUMBER(18,8)		The Raise5Min FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
LOWER5MIN_ACE	NUMBER(18,8)		The Lower5Min FCAS Recovery Amount for the Participant and Region from ACE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.
LOWER5MIN_ASOE	NUMBER(18,8)		The Lower5Min FCAS Recovery Amount for the Participant and Region from ASOE MWh Portion. NULL Value for Settlement Dates prior to the IESS rule effective date.

11.7 Table: SET_NMAS_RECOVERY

Name	SET_NMAS_RECOVERY
Comment	SET_NMAS_RECOVERY sets out the NSCAS recovery data for payments other than testing.

11.7.1 Primary Key Columns

Name

CONTRACTID

PARTICIPANTID

PAYMENTTYPE

PERIODID

REGIONID

SERVICE

SETTLEMENTDATE

VERSIONNO

11.7.2 Index Columns

Name

LASTCHANGED

11.7.3 Content

Name	Data Type	Mandatory	Comment
SETTLEMENTDATE	DATE	X	Settlement Date
VERSIONNO	NUMBER(3,0)	X	Settlement run number

PERIODID	NUMBER(3,0)	X	Settlements Trading Interval.
PARTICIPANTID	VARCHAR(20)	X	The Participant from whom the amount is recovered
SERVICE	VARCHAR(10)	X	The type of NSCAS service. Current value values are: - REACTIVE - LOADSHED - RESTART
CONTRACTID	VARCHAR(10)	X	The NMAS Contract Id
PAYMENTTYPE	VARCHAR(20)	X	The type of payment being recovered. Valid values are: - AVAILABILITY - ENABLEMENT - COMPENSATION
REGIONID	VARCHAR(10)	X	The region from where the amount is recovered
RBF	NUMBER(18,8)		The Benefitting Factor for the RegionId
PAYMENT_AMOUNT	NUMBER(18,8)		The total Payment Amount to recover from all benefitting regions
PARTICIPANT_ENERGY	NUMBER(18,8)		The Participant energy in MWh for the period. NULL Value for Settlement Dates post IESS rule effective date.
REGION_ENERGY	NUMBER(18,8)		The RegionId energy in MWh for the period. NULL Value for Settlement Dates post IESS rule effective date.

RECOVERY_AMOUNT	NUMBER(18,8)		The Total recovery amount for the period for the PARTICIPANTID and REGIONID. For Settlement dates prior to the IESS rule effective date Sum of RECOVERY_AMOUNT_CUSTOMER + RECOVERY_AMOUNT_GENERATOR and Post IESS it is sum of RECOVERYAMOUNT_ACE + RECOVERYAMOUNT_ASOE.
LASTCHANGED	DATE		The Last Updated date and time
PARTICIPANT_GENERATION	NUMBER(18,8)		Participant Generator Energy in the benefitting region. NULL Value for Settlement Dates post IESS rule effective date.
REGION_GENERATION	NUMBER(18,8)		The generator energy in the benefitting region. NULL Value for Settlement Dates post IESS rule effective date.
RECOVERY_AMOUNT_CUSTOMER	NUMBER(18,8)		The recovery amount allocated to customers. NULL Value for Settlement Dates post IESS rule effective date.
RECOVERY_AMOUNT_GENERATOR	NUMBER(18,8)		The recovery amount allocated to generators. NULL Value for Settlement Dates post IESS rule effective date.
PARTICIPANT_ACE_MWH	NUMBER(18,8)		The ACE MWh value for the Participant used in the Recovery Amount Calculation. NULL Value for Settlement Dates prior to the IESS rule effective date.
REGION_ACE_MWH	NUMBER(18,8)		The Regional ACE MWh value used

			in the Recovery Amount Calculation. NULL Value for Settlement Dates prior to the IESS rule effective date.
PARTICIPANT_ASOE_MWH	NUMBER(18,8)		The ASOE MWh value for the Participant used in the Recovery Amount Calculation. NULL Value for Settlement Dates prior to the IESS rule effective date.
REGION_ASOE_MWH	NUMBER(18,8)		The Regional ASOE MWh value used in the Recovery Amount Calculation. NULL Value for Settlement Dates prior to the IESS rule effective date.
RECOVERYAMOUNT_ACE	NUMBER(18,8)		The Recovery dollar amount for the Participant for the NMAS Contract Id calculated using the ACE MWh values for eligible services. NULL Value for Settlement Dates prior to the IESS rule effective date.
RECOVERYAMOUNT_ASOE	NUMBER(18,8)		The Recovery dollar amount for the Participant for the NMAS Contract Id calculated using the ASOE_MWh values for eligible services. NULL Value for Settlement Dates prior to the IESS rule effective date.

11.8 Table: SET_RECOVERY_ENERGY

Name SET_RECOVERY_ENERGY

Comment Settlements substitution recovery energy used

11.8.1 Primary Key Columns

Name

PARTICIPANTID

PERIODID

REGIONID

SETTLEMENTDATE

SETTLEMENTRUNNO

11.8.2 Content

Name	Data Type	Mandatory	Comment
SETTLEMENTDATE	DATE	X	Settlement date
SETTLEMENTRUNNO	NUMBER(3,0)	X	Settlement run number
PARTICIPANTID	VARCHAR2(20)	X	Unique identifier for the participant
REGIONID	VARCHAR2(20)	X	Unique Identifier for the Region to which the TNI belongs on this settlement date
PERIODID	NUMBER(3,0)	X	Trading interval identifier, with Period 1 being the first TI for the calendar day, i.e interval ending 00:05 for 5MS or 00:30 for 30MS.

CUSTOMERENERGYACTUAL	NUMBER(18,8)		Actual Customer Demand. NULL for Settlement dates post the IESS rule effective date.
CUSTOMERENERGYMPFEXACTUAL	NUMBER(18,8)		Actual Customer Demand excluding TNIs that have a causer pays MPF. NULL for Settlement dates post the IESS rule effective date.
CUSTOMERENERGYSUBSTITUTE	NUMBER(18,8)		Substitute Customer Demand. NULL for Settlement dates post the IESS rule effective date.
CUSTOMERENERGYMPFEXSUBSTITUTE	NUMBER(18,8)		Substitute Customer Demand excluding TNIs that have a causer pays MPF. NULL for Settlement dates post the IESS rule effective date.
GENERATORENERGYACTUAL	NUMBER(18,8)		Actual Generator Output. NULL for Settlement dates post the IESS rule effective date.
REGIONCUSTENERGYACTUAL	NUMBER(18,8)		Region Total of Actual Customer Demand. NULL for Settlement dates post the IESS rule effective date.
REGIONCUSTENERGYMPFEXACTUAL	NUMBER(18,8)		Region Total of Actual Customer Demand excluding TNIs that have a causer pays MPF. NULL for Settlement dates post the IESS rule effective date.
REGIONCUSTENERGYSUBST	NUMBER(18,8)		Region Total of Substitute Customer Demand. NULL for Settlement dates post the IESS rule effective date.
REGIONCUSTENERGYMPFE	NUMBER(18,8)		Region total of Substitute

XSUBST			Customer Demand excluding TNIs that have a causer pays MPF. NULL for Settlement dates post the IESS rule effective date.
REGIONGENENERGYACTUAL	NUMBER(18,8)		Region Total of Actual Generator Output. NULL for Settlement dates post the IESS rule effective date.
ACE_MWH_ACTUAL	NUMBER(18,8)		Actual ACE MWh Value for the Recovery Calculation. NULL Value for Settlement date prior to the IESS rule effective date
ACE_MWH_MPFEX_ACTUAL	NUMBER(18,8)		The Actual ACE MWh Value excluding the MPF Connection Points for the Recovery Calculation. This is used only in FCAS Residue Recovery Calculation. NULL Value for Settlement date prior to the IESS rule effective date.
ACE_MWH_SUBSTITUTE	NUMBER(18,8)		The Substitute ACE MWh Value for the Recovery Calculation. There is no substitute demand post IESS Rule Change. Hence this column will have same value as ACE_MWh_Actual. NULL Value for Settlement date prior to the IESS rule effective date.
ACE_MWH_MPFEX_SUBSTITUTE	NUMBER(18,8)		The Substitute ACE MWh Value excluding the MPF Connection Points for the Recovery Calculation. This is used only in FCAS Residue Recovery Calculation. There is no substitute demand post IESS Rule Change. Hence this column will have same value as ACE_MWh_MPFExActual. NULL Value for Settlement date prior to

			the IESS rule effective date.
ASOE_MWH_ACTUAL	NUMBER(18,8)		The Actual ASOE MWh Value for the Recovery Calculation. NULL Value for Settlement date prior to the IESS rule effective date.
REGION_ACE_MWH_ACTUAL	NUMBER(18,8)		The Region total of Actual ACE MWh Value. NULL Value for Settlement date prior to the IESS rule effective date.
REGION_ACE_MWH_MPFEX_ACTUAL	NUMBER(18,8)		The Region total of Actual ACE MWh Value excluding the MPF Connection Points. NULL Value for Settlement date prior to the IESS rule effective date.
REGION_ACE_MWH_SUBST	NUMBER(18,8)		The Region total of Substitute ACE MWh Value. NULL Value for Settlement date prior to the IESS rule effective date.
REGION_ACE_MWH_MPFEX_SUBST	NUMBER(18,8)		The Region total of Substitute ACE MWh Value excluding the MPF Connection Points . NULL Value for Settlement date prior to the IESS rule effective date.
REGION_ASOE_MWH_ACTUAL	NUMBER(18,8)		The Region total of Actual ASOE MWh Value. NULL Value for Settlement date prior to the IESS rule effective date.

11.9 Table: SETFCASREGIONRECOVERY

Name	SETFCASREGIONRECOVERY
Comment	The FCAS Recovery amount from each NEM Region and the Energy MWh used for the FCAS Recovery calculation from Participants

11.9.1 Description

SETFCASREGIONRECOVERY contains public data and is available to all participants.

Source

SETFCASREGIONRECOVERY updates with each settlements run.

Volume

Approximately 10,000 rows per day

11.9.2 Primary Key Columns

Name

BIDTYPE

PERIODID

REGIONID

SETTLEMENTDATE

VERSIONNO

11.9.3 Index Columns

Name

LASTCHANGED

11.9.4 Content

Name	Data Type	Mandatory	Comment

SETTLEMENTDATE	DATE	X	Settlement Date of trading interval
VERSIONNO	NUMBER(3,0)	X	Settlement run no
BIDTYPE	VARCHAR2(10)	X	FCAS Service Type
REGIONID	VARCHAR2(10)	X	RegionID
PERIODID	NUMBER(3,0)	X	Settlements Trading Interval.
GENERATORREGIONENERGY	NUMBER(16,6)		Generator Regional Energy Amount. NULL for Settlement dates post the IESS rule effective date
CUSTOMERREGIONENERGY	NUMBER(16,6)		Customer Region Energy Amount. NULL for Settlement dates post the IESS rule effective date
REGIONRECOVERY	NUMBER(18,8)		The NEM Regional Recovery Amount for FCAS
LASTCHANGED	DATE		Last Date record changed
REGION_ACE_MWH	NUMBER(18,8)		The Regional ACE MWh value used for the FCAS Recovery. NULL for Settlement dates prior to the IESS rule effective date
REGION_ASOE_MWH	NUMBER(18,8)		The Regional ASOE MWh value used for the FCAS Recovery. NULL for Settlement dates prior to the IESS rule effective date
REGIONRECOVERYAMOUNT_ACE	NUMBER(18,8)		The Total Dollar Amount for the Region recovered using the ACE MWh Values. NULL for Settlement dates prior to the IESS rule effective date

REGIONRECOVERYAMOUNT_ASOE	NUMBER(18,8)		The Total Dollar Amount for the Region recovered using the ASOE MWh Values. NULL for Settlement dates prior to the IESS rule effective date
REGIONRECOVERYAMOUNT	NUMBER(18,8)		The Total Dollar Amount for the Region (RegionRecoveryAmountACE + RegionRecoveryAmountASOE). NULL for Settlement dates prior to the IESS rule effective date

11.10 Table: SETINTRAREGIONRESIDUES

Name SETINTRAREGIONRESIDUES

Comment The Settlement Intra Region Residues Result.

11.10.1 Description

SETINTRAREGIONRESIDUES data is public to all participants.

Source

SETINTRAREGIONRESIDUES updates with each settlement run.

Note

The relationship between the data columns for each key is expressed in the following formula:
EP + EC + (EXP * RRP) = IRSS

11.10.2 Primary Key Columns

Name

PERIODID

REGIONID

RUNNO

SETTLEMENTDATE

11.10.3 Index Columns

Name

LASTCHANGED

11.10.4 Content

Name	Data Type	Mandatory	Comment
SETTLEMENTDATE	DATE	X	Settlement Date

RUNNO	NUMBER(3)	X	Settlement run number
PERIODID	NUMBER(3)	X	Settlements Trading Interval.
REGIONID	VARCHAR2(10)	X	Region Identifier
EP	NUMBER(15,5)		Energy payments to generators. NULL for Settlement dates post the IESS rule effective date
EC	NUMBER(15,5)		Energy purchased by customers. NULL for Settlement dates post the IESS rule effective date
RRP	NUMBER(15,5)		Regional price
EXP	NUMBER(15,5)		Net import in MWh into the region calculated at the regional reference node (export is negative)
IRSS	NUMBER(15,5)		Intra-regional surplus (a negative sign indicates surplus, and a positive sign indicates a deficiency)
LASTCHANGED	DATE		Last date and time record changed
ACE_AMOUNT	NUMBER(18,8)		The Adjusted Consumed Energy Dollar Amount for the Region used in the calculation of IRSS (Intra Residue Amount). NULL for Settlement dates prior to the IESS rule effective date
ASOE_AMOUNT	NUMBER(18,8)		The Adjusted Sent Out Energy Dollar Amount for the Region used in the calculation of IRSS (Intra Residue Amount). NULL for Settlement dates prior to the IESS rule effective date

11.11 Table: SETMARKETFEES

Name SETMARKETFEES

Comment SETMARKETFEES shows payments for market fees for each settlement date.

11.11.1 Description

SETMARKETFEES is confidential data.

Source

SETMARKETFEES updates with each settlement run.

11.11.2 Primary Key Columns

Name

MARKETFEEID

PARTICIPANTCATEGORYID

PARTICIPANTID

PERIODID

RUNNO

SETTLEMENTDATE

11.11.3 Index Columns

Name

LASTCHANGED

11.11.4 Content

Name	Data Type	Mandatory	Comment

SETTLEMENTDATE	DATE	X	Settlement date
RUNNO	NUMBER(3,0)	X	Settlement run no
PARTICIPANTID	VARCHAR2(10)	X	Unique participant identifier
PERIODID	NUMBER(3,0)	X	Settlements Trading Interval.
MARKETFEEID	VARCHAR2(10)	X	Market fee identifier (e.g. V_EST)
MARKETFEEVALUE	NUMBER(15,5)		Fee charge
ENERGY	NUMBER(16,6)		Energy amount for variable fees
LASTCHANGED	DATE		Last date and time record changed
PARTICIPANTCATEGORYID	VARCHAR2(10)	X	The participant category that the market fee recovery pertains to. Corresponds to the PARTICIPANTCATEGORYID column of the PARTICIPANT_BANDFEE_CATEGORYALLOC_C_V view for BAND$ type fees, or to the MARKETFEETYPE column of the MARKETFEE_P_V view for all other fee types.
FEERATE	NUMBER(18,8)		The rate applied to this fee for the participant at the settlement date
FEEUNITS	NUMBER(18,8)		The number of units applicable to this fee for the participant, in the trading interval.
METER_TYPE	VARCHAR2(20)		The Energy Type for the Market Fees Calculation. E.g of Meter Types are CUSTOMER, GENERATOR, NREG, BDU etc. If Meter Type is mentioned as ALL then all the Meter Types for that

			Participant Category will be used in the Fee calculation
METER_SUBTYPE	VARCHAR2(20)		The Meter Sub Type values are ACE, ASOE or ALL. ACE represent ACE_MWH value or ASOE represent ASOE_MWH value and ALL represent sum of ACE_MWh and ASOE_MWh

12 Package: STPASA_SOLUTION

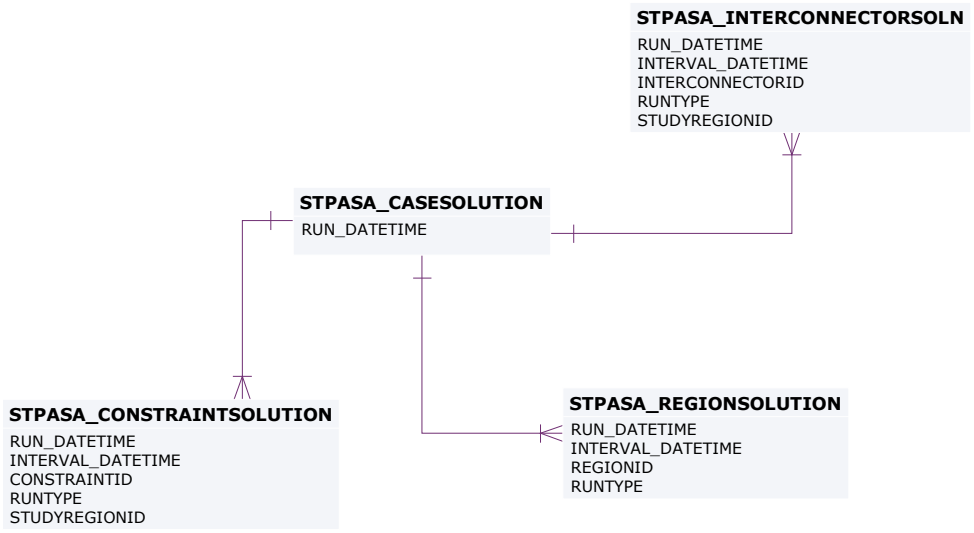
Name STPASA_SOLUTION

Comment Results from a published Short Term PASA Run

12.1 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.

12.2 Diagram: Entities: ST PASA Solution



12.3 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.

12.3.1 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

12.3.2 Primary Key Columns

Name

INTERVAL_DATETIME

REGIONID

RUN_DATETIME

RUNTYPE

12.3.3 Index Columns

Name

LASTCHANGED

12.3.4 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
AGGREGATEPASAAVAILABI	NUMBER(12,0)		Sum of PASAAVAILABILITY for all scheduled generating units and

LITY			the Unconstrained Intermittent Generation Forecasts (UIGF) for all semi-scheduled generating units in a given Region for a given PERIODID. For the RELIABILITY_LRC and OUTAGE_LRC runs, UIGF is the POE90 forecast. For the LOR run, UIGF is the POE50 forecast.
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
TOTALINTERMITTENTGENE	NUMBER(15,5)		Allowance made for non-

RATION			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.

13 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.

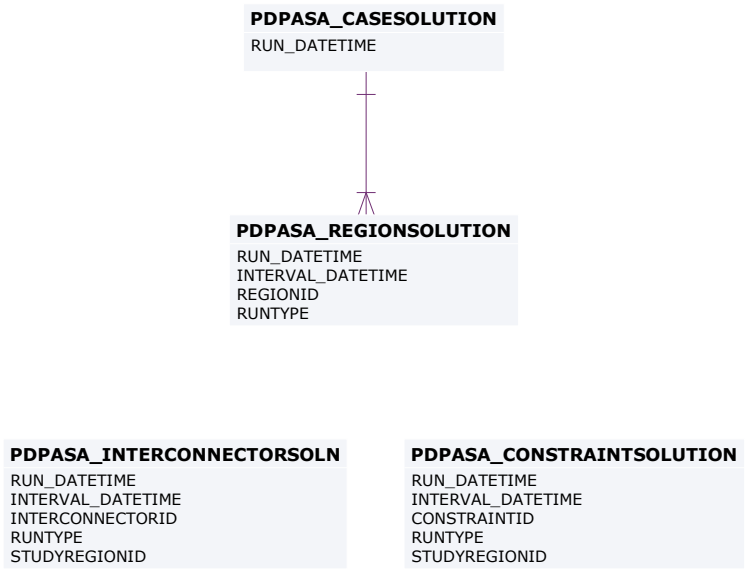
The calculation is a reserve assessment based on the PASA solver similar to existing ST and MT PASA business processes

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

13.1 List of tables

Name	Comment
PDPASA_REGIONSOLUTION	The PDPASA region solution data

13.2 Diagram: Entities: PD PASA



13.3 Table: PDPASA_REGIONSOLUTION

Name	PDPASA_REGIONSOLUTION
Comment	The PDPASA region solution data

13.3.1 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.

13.3.2 Primary Key Columns

Name

INTERVAL_DATETIME

REGIONID

RUN_DATETIME

RUNTYPE

13.3.3 Index Columns

Name

LASTCHANGED

13.3.4 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 for all scheduled generating units and the Unconstrained Intermittent Generation Forecasts (UIGF) for all semi-scheduled generating units in a given Region for a given PERIODID. For the RELIABILITY_LRC and OUTAGE_LRC runs, UIGF is the POE90 forecast. For the LOR run, UIGF is the POE50 forecast.
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. 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.

14 Package: PD7DAY

Name PD7DAY

Comment Results from a published Predispatch 7 Day Run

14.1 List of tables

Name	Comment
PD7DAY_CASESOLUTION	PD7DAY case solution table
PD7DAY_CONSTRAINTSOLUTION	PD7DAY constraint solution
PD7DAY_INTERCONNECTORSOLUTION	PD7DAY intereconnector solution
PD7DAY_MARKET_SUMMARY	PD7DAY market summary showing calculated gas fuel forecasts
PD7DAY_PRICESOLUTION	PD7DAY price solution

14.2 Diagram: Entities: PD7DAY

PD7DAY_INTERCONNECTORSOLUTION		
RUN_DATETIME	DATE	<pk>
INTERVENTION	NUMBER(2,0)	<pk>
INTERVAL_DATETIME	DATE	<pk>
INTERCONNECTORID	VARCHAR2(20)	<pk>

PD7DAY_CASESOLUTION		
RUN_DATETIME	DATE	<pk>

PD7DAY_MARKET_SUMMARY		
RUN_DATETIME	DATE	<pk>
INTERVAL_DATETIME	DATE	<pk>

PD7DAY_CONSTRAINTSOLUTION		
RUN_DATETIME	DATE	<pk>
INTERVENTION	NUMBER(2,0)	<pk>
INTERVAL_DATETIME	DATE	<pk>
CONSTRAINTID	VARCHAR2(20)	<pk>

PD7DAY_PRICESOLUTION		
RUN_DATETIME	DATE	<pk>
INTERVENTION	NUMBER(2,0)	<pk>
INTERVAL_DATETIME	DATE	<pk>
REGIONID	VARCHAR2(20)	<pk>

14.3 Table: PD7DAY_CASESOLUTION

Name PD7DAY_CASESOLUTION

Comment PD7DAY case solution table

14.3.1 Primary Key Columns

Name

RUN_DATETIME

14.3.2 Content

Name	Data Type	Mandatory	Comment
RUN_DATETIME	DATE	X	Unique Timestamp Identifier for this study
INTERVENTION	NUMBER(2,0)		Flag to indicate if this Predispatch case includes an intervention pricing run: 0 = case does not include an intervention pricing run, 1 = case does include an intervention pricing run.
LASTCHANGED	DATE		Last date and time record changed

14.4 Table: PD7DAY_CONSTRAINTSOLUTION

Name PD7DAY_CONSTRAINTSOLUTION

Comment PD7DAY constraint solution

14.4.1 Primary Key Columns

Name

CONSTRAINTID

INTERVAL_DATETIME

INTERVENTION

RUN_DATETIME

14.4.2 Content

Name	Data Type	Mandatory	Comment
RUN_DATETIME	DATE	X	Unique Timestamp Identifier for this study
INTERVENTION	NUMBER(2,0)	X	Flag to indicate if this Predispatch case includes an intervention pricing run: 0 = case does not include an intervention pricing run, 1 = case does include an intervention pricing run.
INTERVAL_DATETIME	DATE	X	The unique identifier for the interval within this study
CONSTRAINTID	VARCHAR2(20)	X	Constraint identifier (synonymous with GenConID)
RHS	NUMBER(15,5)		Right Hand Side value in the capacity evaluation in MW

MARGINALVALUE	NUMBER(15,5)		Marginal cost of constraint (>0 if binding) in $/MW
VIOLATIONDEGREE	NUMBER(15,5)		Amount of Violation (>0 if violating) in MW
LHS	NUMBER(15,5)		Aggregation of the constraints LHS term solution values in MW
LASTCHANGED	DATE		Last date and time record changed

14.5 Table: PD7DAY_INTERCONNECTORSOLUTION

Name PD7DAY_INTERCONNECTORSOLUTION

Comment PD7DAY intereconnector solution

14.5.1 Primary Key Columns

Name

INTERCONNECTORID

INTERVAL_DATETIME

INTERVENTION

RUN_DATETIME

14.5.2 Content

Name	Data Type	Mandatory	Comment
RUN_DATETIME	DATE	X	Unique Timestamp Identifier for this study
INTERVENTION	NUMBER(2,0)	X	Flag to indicate if this Predispatch case includes an intervention pricing run: 0 = case does not include an intervention pricing run, 1 = case does include an intervention pricing run.
INTERVAL_DATETIME	DATE	X	The unique identifier for the interval within this study
INTERCONNECTORID	VARCHAR2(20)	X	Interconnector identifier
METEREDMWFLOW	NUMBER(15,5)		SCADA MW Flow measured at Run start. For periods subsequent to

			the first period of a PD7DAY run, this value represents the cleared target for the previous period of that PD7DAY run.
MWFLOW	NUMBER(15,5)		Cleared Interconnector loading level (MW)
MWLOSSES	NUMBER(15,5)		Interconnector Losses at cleared flow
MARGINALVALUE	NUMBER(15,5)		Marginal cost of Interconnector standing data limits (if binding)
VIOLATIONDEGREE	NUMBER(15,5)		Violation of Interconnector standing data limits
EXPORTLIMIT	NUMBER(15,5)		Calculated Interconnector limit of exporting energy on the basis of invoked constraints and static interconnector export limit
IMPORTLIMIT	NUMBER(15,5)		Calculated Interconnector limit of importing energy on the basis of invoked constraints and static interconnector import limit. Note unlike the input interconnector import limit this is a directional quantity and should be defined with respect to the interconnector flow.
MARGINALLOSS	NUMBER(15,5)		Marginal loss factor at the cleared flow
EXPORTCONSTRAINTID	VARCHAR2(20)		Generic Constraint setting the export limit
IMPORTCONSTRAINTID	VARCHAR2(20)		Generic Constraint setting the import limit
FCASEXPORTLIMIT	NUMBER(15,5)		Calculated export limit applying to

			energy + Frequency Controlled Ancillary Services.
FCASIMPORTLIMIT	NUMBER(15,5)		Calculated import limit applying to energy + Frequency Controlled Ancillary Services.
LOCAL_PRICE_ADJUSTMENT_EXPORT	NUMBER(10,2)		Aggregate Constraint contribution cost of this Interconnector: Sum(MarginalValue x Factor) for all relevant Constraints, for Export (Factor >= 0)
LOCALLY_CONSTRAINED_EXPORT	NUMBER(1,0)		Key for Local_Price_Adjustment_Export: 2 = at least one Outage Constraint; 1 = at least 1 System Normal Constraint (and no Outage Constraint); 0 = No System Normal or Outage Constraints
LOCAL_PRICE_ADJUSTMENT_IMPORT	NUMBER(10,2)		Aggregate Constraint contribution cost of this Interconnector: Sum(MarginalValue x Factor) for all relevant Constraints, for Import (Factor >= 0)
LOCALLY_CONSTRAINED_IMPORT	NUMBER(1,0)		Key for Local_Price_Adjustment_Import: 2 = at least one Outage Constraint; 1 = at least 1 System Normal Constraint (and no Outage Constraint); 0 = No System Normal or Outage Constraints
LASTCHANGED	DATE		Last date and time record changed

14.6 Table: PD7DAY_MARKET_SUMMARY

Name PD7DAY_MARKET_SUMMARY

Comment PD7DAY market summary showing calculated gas fuel forecasts

14.6.1 Primary Key Columns

Name

INTERVAL_DATETIME

RUN_DATETIME

14.6.2 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
GPG_FUEL_FORECAST_TJ	NUMBER(15,5)		The total gas consumption in TJ

14.7 Table: PD7DAY_PRICESOLUTION

Name PD7DAY_PRICESOLUTION

Comment PD7DAY price solution

14.7.1 Primary Key Columns

Name

INTERVAL_DATETIME

INTERVENTION

REGIONID

RUN_DATETIME

14.7.2 Content

Name	Data Type	Mandatory	Comment
RUN_DATETIME	DATE	X	Unique Timestamp Identifier for this study
INTERVENTION	NUMBER(2,0)	X	Flag to indicate if this Predispatch case includes an intervention pricing run: 0 = case does not include an intervention pricing run, 1 = case does include an intervention pricing run.
INTERVAL_DATETIME	DATE	X	The unique identifier for the interval within this study
REGIONID	VARCHAR2(20)	X	Region Identifier
RRP	NUMBER(15,5)		Region Reference Price (Energy)

LOWER1SECRRP	NUMBER(15,5)		Regional Lower 1Sec Price - RegionSolution element L1Price attribute
LOWER6SECRRP	NUMBER(15,5)		Region Reference Price (Lower6Sec)
LOWER60SECRRP	NUMBER(15,5)		Region Reference Price (Lower60Sec)
LOWER5MINRRP	NUMBER(15,5)		Region Reference Price (Lower5Min)
LOWERREGRRP	NUMBER(15,5)		Region Reference Price (LowerReg)
RAISE1SECRRP	NUMBER(15,5)		Regional Raise 1Sec Price - R1Price attribute after capping/flooring
RAISE6SECRRP	NUMBER(15,5)		Region Reference Price (Raise6Sec)
RAISE60SECRRP	NUMBER(15,5)		Region Reference Price (Raise60Sec)
RAISE5MINRRP	NUMBER(15,5)		Region Reference Price (Raise5Min)
RAISEREGRRP	NUMBER(15,5)		Region Reference Price (RaiseReg)
LASTCHANGED	DATE		Last date and time record changed