

MMS DATA MODEL PACKAGE SUMMARY

MMS Data Model v4.17 Oracle

PREPARED BY: IMT

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1 List of packages

Name	Comment
CONFIGURATION	MMS Data Model Configuration Management and Control
ANCILLIARY_SERVICES	Ancillary Service Contract Data
ASOFFER	Offer data for Ancillary Service Contracts
BIDS	Energy and Market Based FCAS Offers
BILLING_CONFIG	Configuration data for the Billing Process
BILLING_RUN	<p>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.</p> <p>Each billing run is uniquely identified by contract year, week no and bill run no.</p>
DEMAND_FORECASTS	Regional Demand Forecasts and Intermittent Generation forecasts.
DISPATCH	Results from a published Dispatch Run
FORCE_MAJEURE	Market Suspensions and administer pricing event data
GD_INSTRUCT	General Dispatch Instruction data
GENERIC_CONSTRAINT	Generic Constraint Standing Data and Invocations
IRAUCTION	Inter-regional Residue Auction data
MARKET_CONFIG	Standing data for the market
MARKET_NOTICE	Market Notice data
METER_DATA	Wholesale market aggregated Meter data
MREVENT	Mandatory Restrictions Event data
MTPASA	Results from a published Medium Term PASA Run and region-aggregate offered PASA Availability of scheduled generators
P5MIN	Results from a published Five-Minute Predispatch Run
PARTICIPANT_REGISTRATION	Participant registration data
PRE_DISPATCH	Results from a published Predispatch Run
RESERVE_DATA	Energy and FCAS reserve requirements
SETTLEMENT_CONFIG	Configuration and input data for the Settlements Process
SETTLEMENT_DATA	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.
STPASA_SOLUTION	Results from a published Short Term PASA Run

TRADING_DATA	30 minute Trading interval results
HISTORICAL TABLES	These tables are no longer used
PDPASA	<p>The PDPASA package provides a 30-minute solving process to the Market systems</p> <p>The current methodology for calculating reserves in the PreDispatch timeframe is determined in a post processing step using a heuristic calculation based the results and Interconnector limits from the PreDispatch run.</p> <p>The calculation is a reserve assessment based on the PASA solver similar to existing ST and MT PASA business processes</p> <p>The process reflects all intra-regional and inter-regional network constraints as an input to the process</p>
PRUDENTIALS	Prudential Management
MCC_DISPATCH	Results from the Marginal Constraint Cost (MCC) re-run of the dispatch process. The MCC forms part of the part of the AER"s "Electricity transmission network service providers Service target performance incentive Scheme"

2 Description of model MMS Data Model v4.17 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.

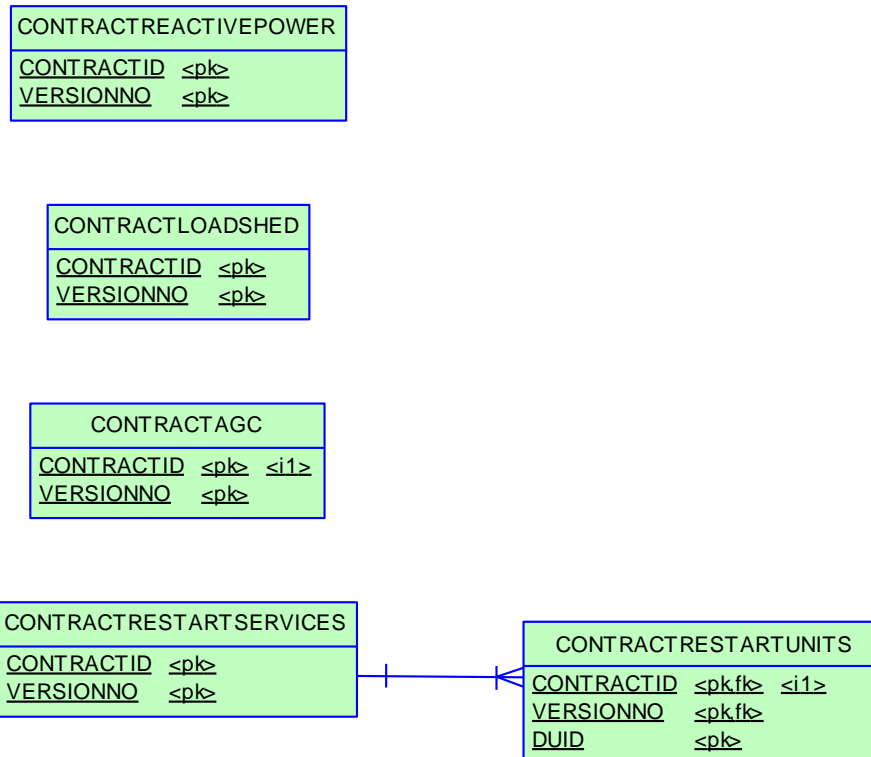
Note:

The National Electricity Market registration classifications of Anglesea Power Station Unit 1 (dispatchable unit ID: APS) and Yarwun Power Station Unit1 (dispatchable unit ID: YARWUN_1) are market non-scheduled generating units. However, it is a condition of the registration of these units that the Registered Participants comply with some of the obligations of a Scheduled Generator. Both units are dispatched as scheduled generating units with respect to their dispatch offers, targets and generation outputs. Accordingly, information about APS and YARWUN_1 is reported as scheduled generating units information.

3 Package: ANCILLIARY_SERVICES

Name ANCILLIARY_SERVICES
Comment Ancillary Service Contract Data

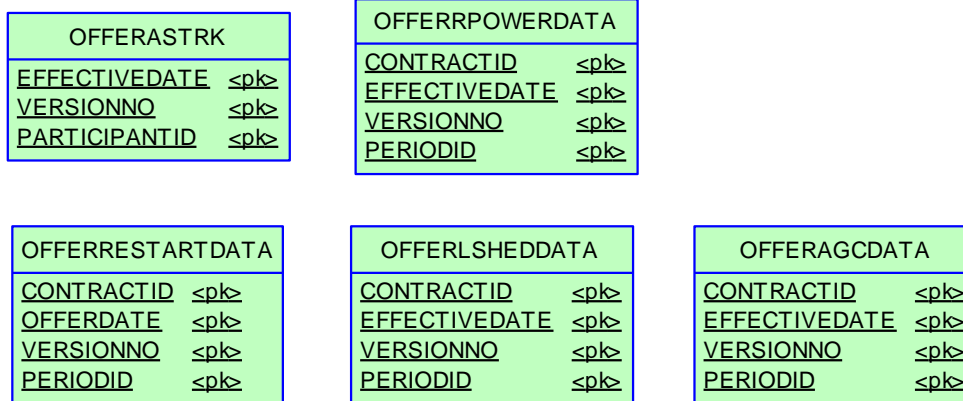
3.1 Diagram: Entities: Ancilliary Services



4 Package: ASOFFER

Name ASOFFER
Comment Offer data for Ancillary Service Contracts

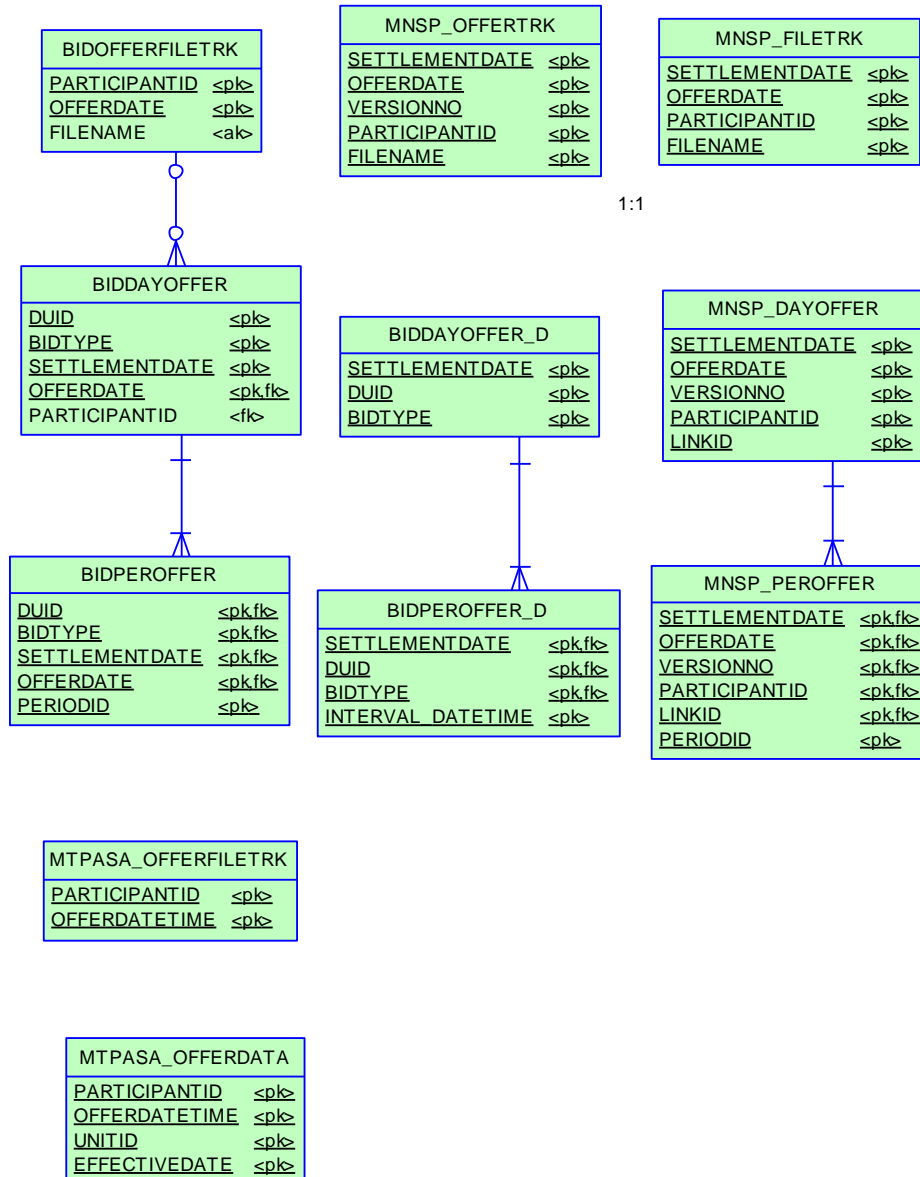
4.1 Diagram: Entities: Ancillary Service Contracts



5 Package: BIDS

Name BIDS
Comment Energy and Market Based FCAS Offers

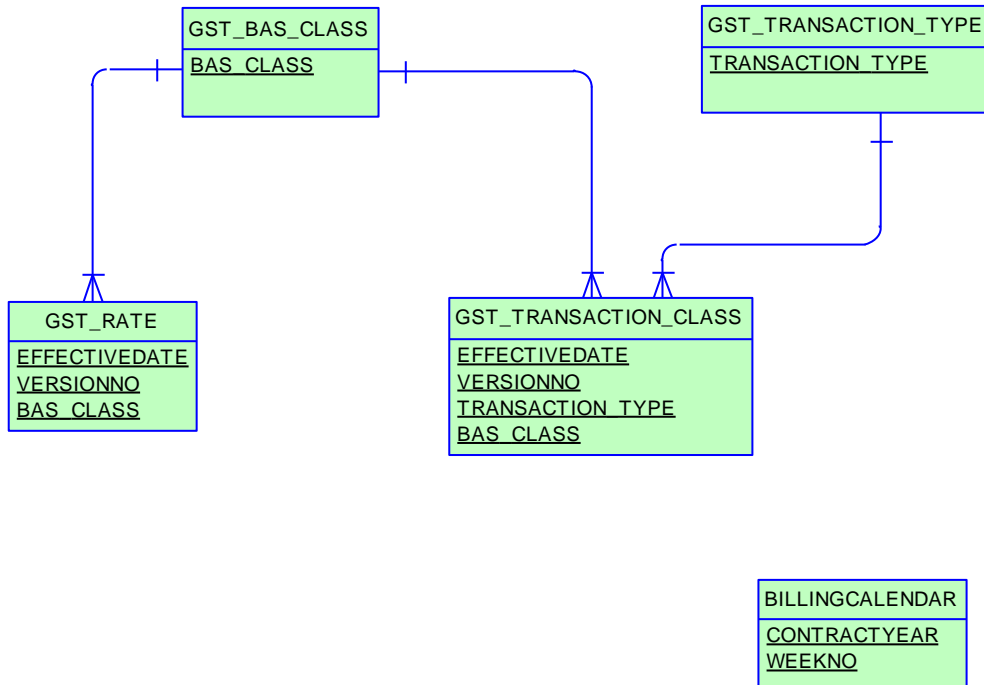
5.1 Diagram: Entities: Bids



6 Package: BILLING_CONFIG

Name BILLING_CONFIG
Comment Configuration data for the Billing Process

6.1 Diagram: Entities: Billing Config



7 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.

8 Package: CONFIGURATION

Name CONFIGURATION

Comment MMS Data Model Configuration Management and Control

8.1 Diagram: Entities: Configuration

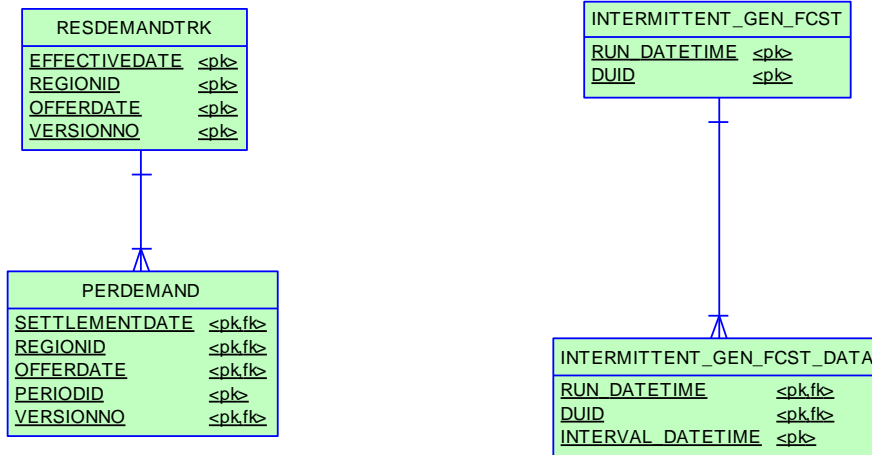
MMS_DATA_MODEL_AUDIT		
<u>INSTALLATION_DATE</u>	DATE	<pk>
<u>MMSDM_VERSION</u>	VARCHAR2(20)	<pk>
<u>INSTALL_TYPE</u>	VARCHAR2(10)	<pk>
SCRIPT_VERSION	VARCHAR2(20)	
NEM_CHANGE_NOTICE	VARCHAR2(20)	
PROJECT_TITLE	VARCHAR2(200)	
USERNAME	VARCHAR2(40)	
STATUS	VARCHAR2(10)	

9 Package: DEMAND_FORECASTS

Name DEMAND_FORECASTS

Comment Regional Demand Forecasts and Intermittent Generation forecasts.

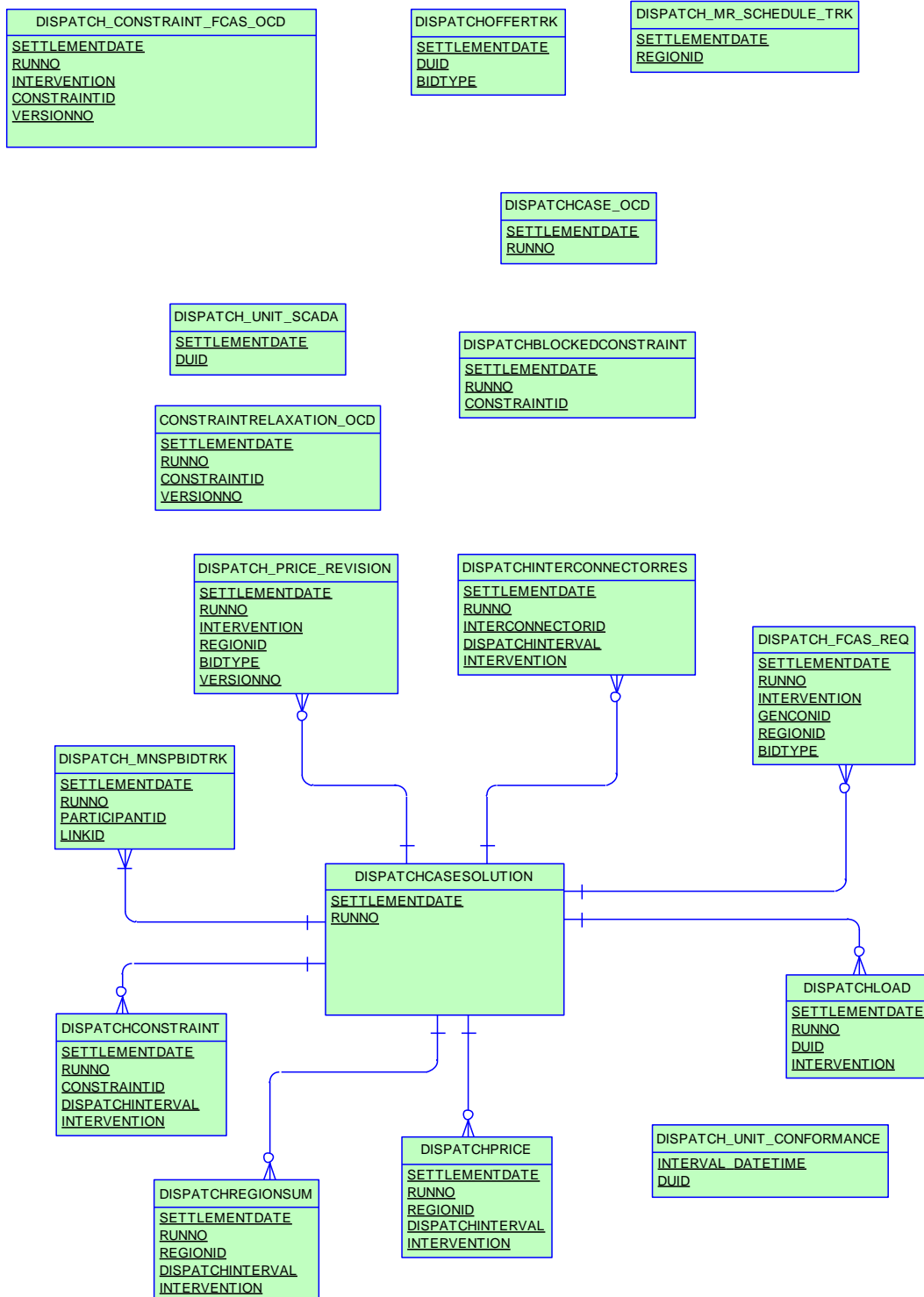
9.1 Diagram: Entities: Demand Forecasts



10 Package: DISPATCH

Name DISPATCH
Comment Results from a published Dispatch Run

10.1 Diagram: Entities: Dispatch

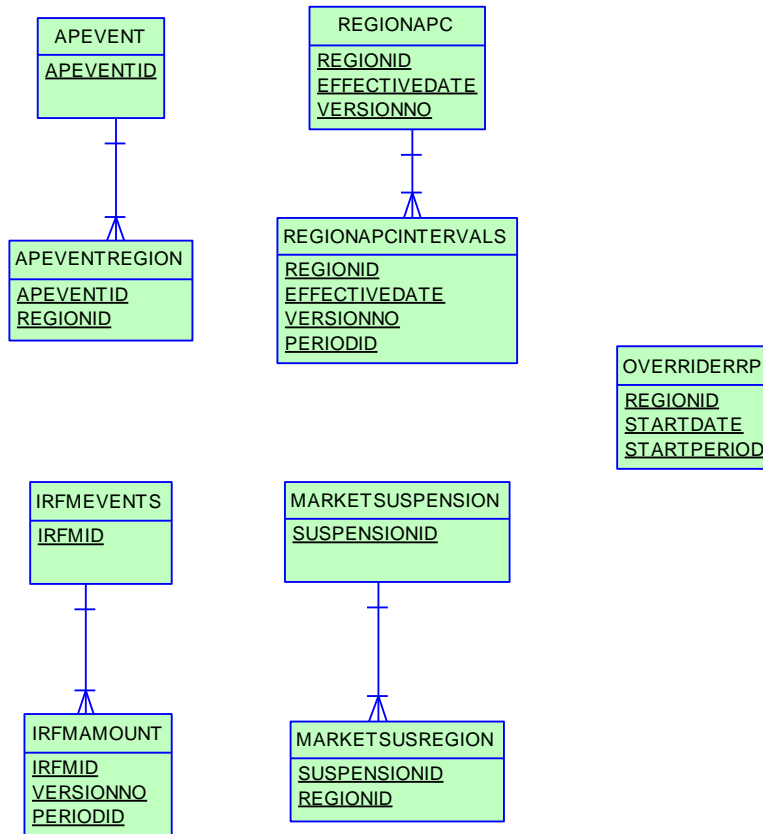


11 Package: FORCE_MAJEURE

Name FORCE_MAJEURE

Comment Market Suspensions and administer pricing event data

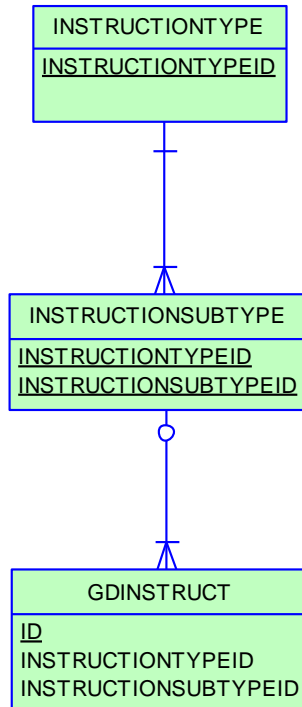
11.1 Diagram: Entities: Force Majeure



12 Package: GD_INSTRUCT

Name GD_INSTRUCT
Comment General Dispatch Instruction data

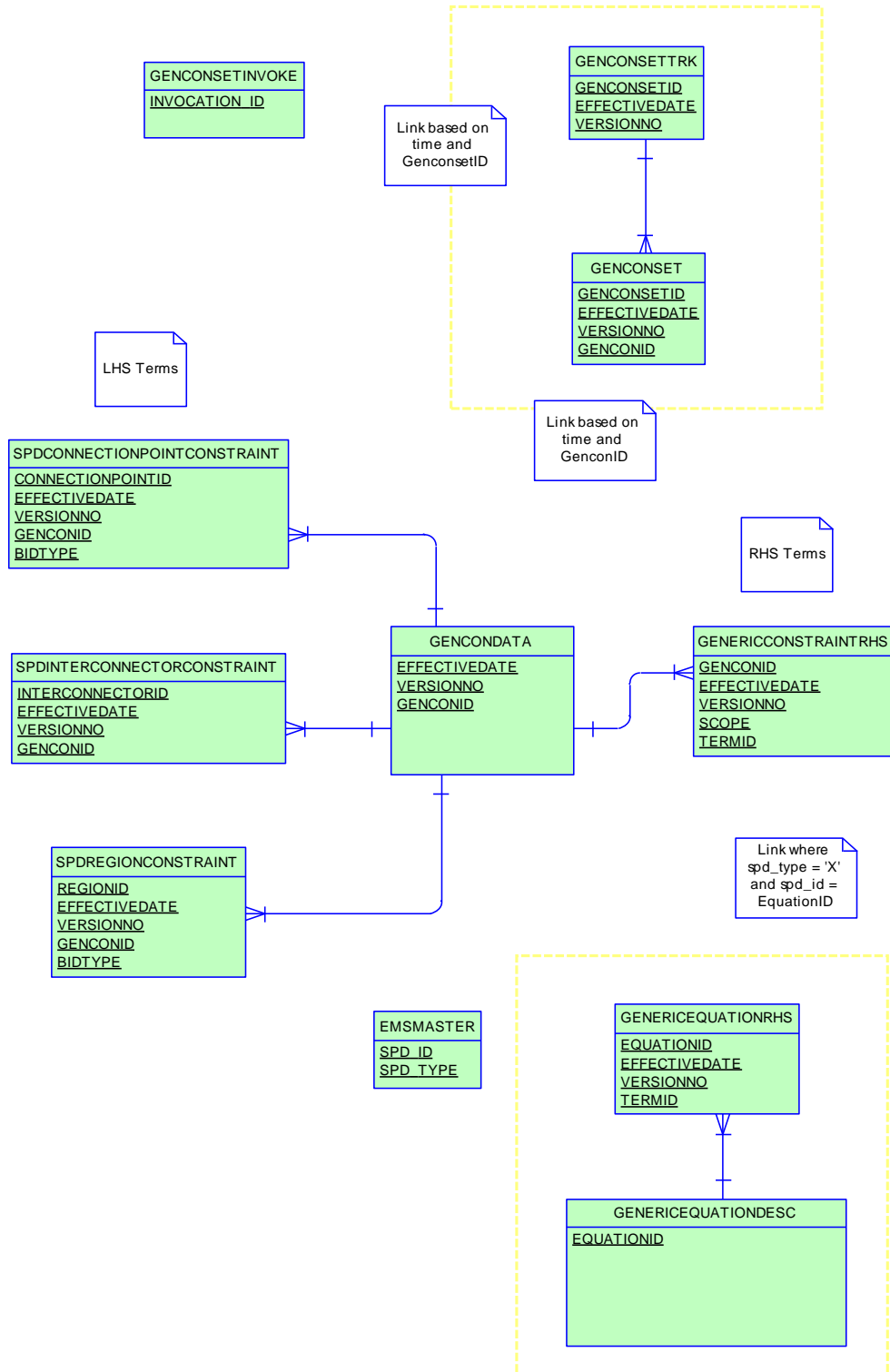
12.1 Diagram: Entities: GD Instruct



13 Package: GENERIC_CONSTRAINT

Name GENERIC_CONSTRAINT
Comment Generic Constraint Standing Data and Invocations

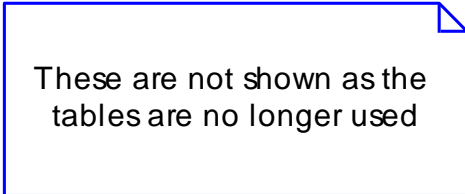
13.1 Diagram: Entities: Generic Constraints



14 Package: HISTORICAL TABLES

<i>Name</i>	HISTORICAL TABLES
<i>Comment</i>	These tables are no longer used

14.1 Diagram: Entities: Historical Tables

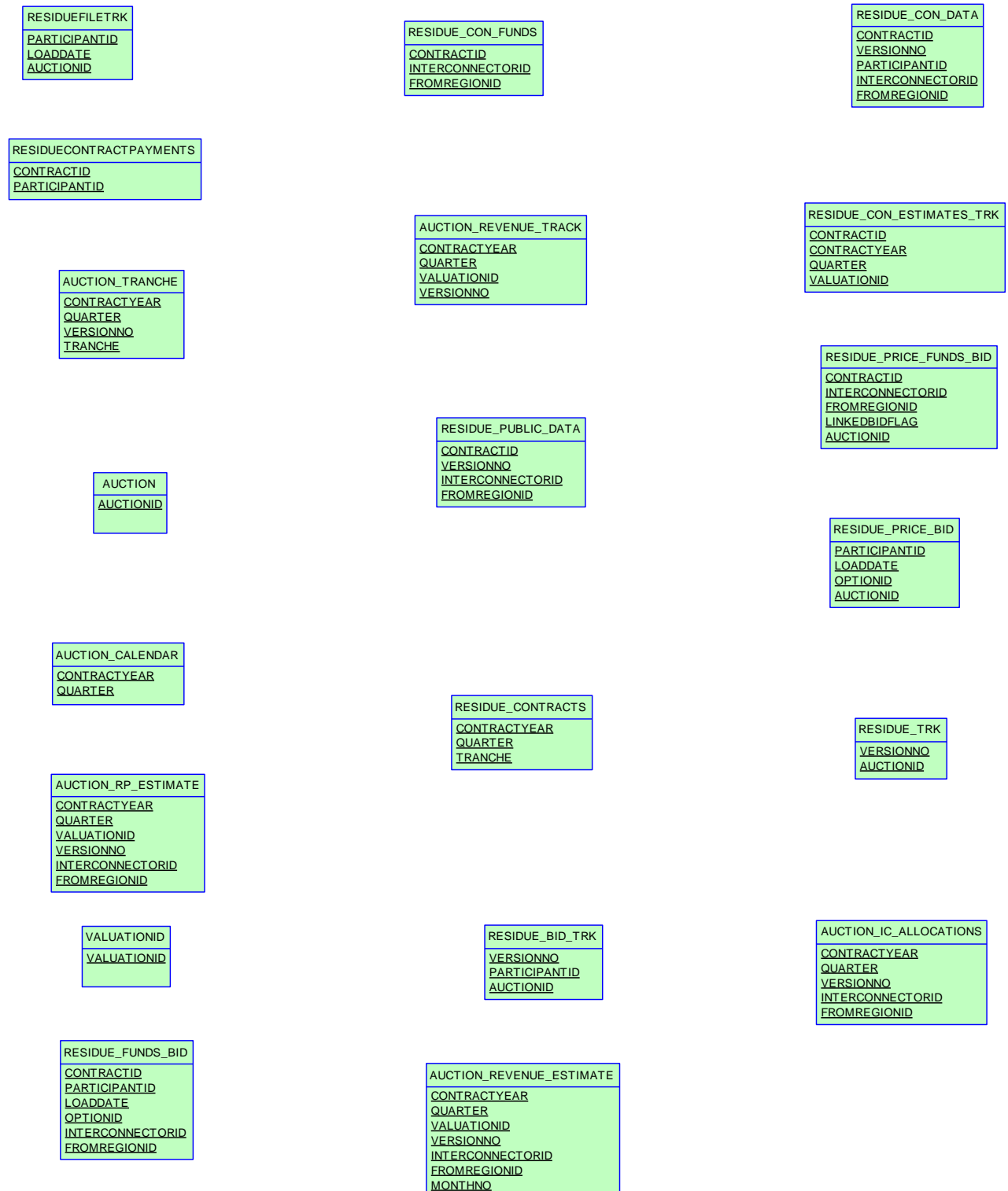


These are not shown as the tables are no longer used

15 Package: IRAUCTION

Name IRAUCTION
Comment Inter-regional Residue Auction data

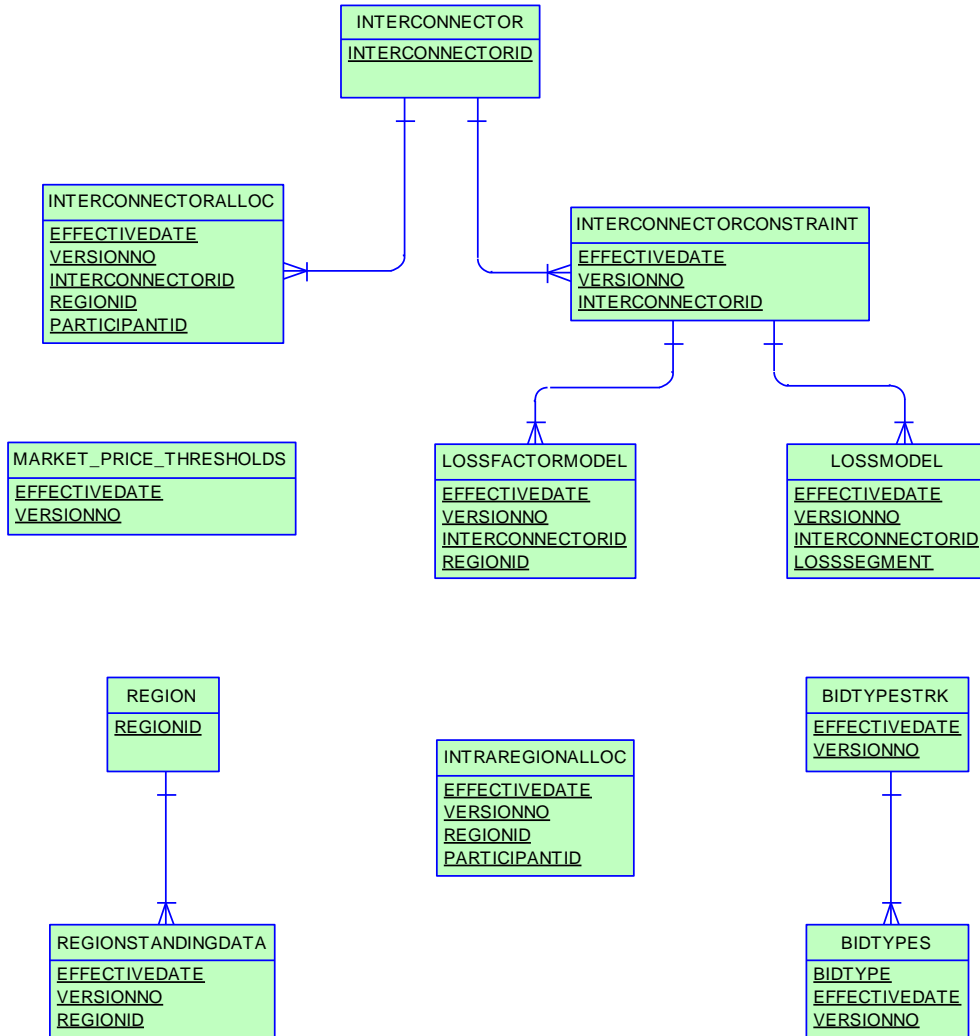
15.1 Diagram: PhysicalDiagram_1



16 Package: MARKET_CONFIG

Name MARKET_CONFIG
Comment Standing data for the market

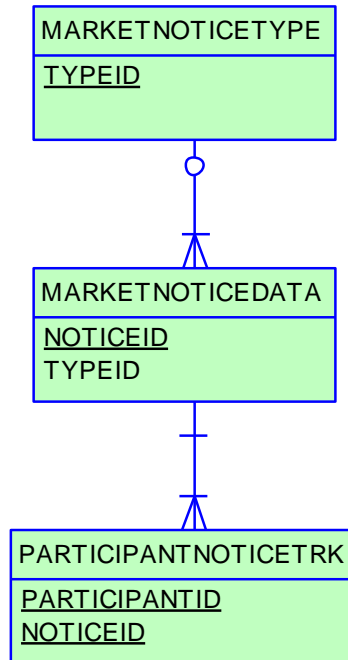
16.1 Diagram: Entities: Market Standing Data



17 Package: MARKET_NOTICE

Name MARKET_NOTICE
Comment Market Notice data

17.1 Diagram: Entities: Market Notices



18 Package: MCC_DISPATCH

Name MCC_DISPATCH

Comment Results from the Marginal Constraint Cost (MCC) re-run of the dispatch process. The MCC forms part of the part of the AER's "Electricity transmission network service providers Service target performance incentive Scheme"

18.1 Diagram: Entities: MCC_Dispatch

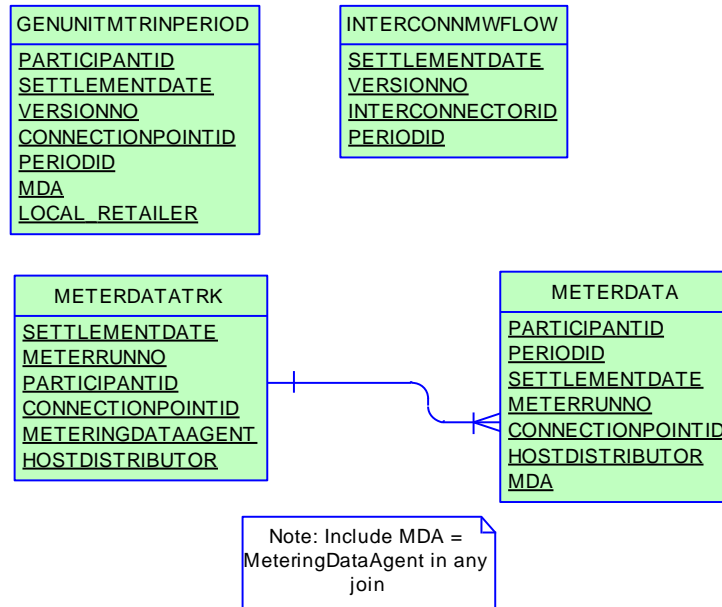
MCC_CASESOLUTION		
<u>RUN_DATETIME</u>	<u>DATE</u>	<pk>

MCC_CONSTRAINTSOLUTION		
<u>RUN_DATETIME</u>	<u>DATE</u>	<pk>
<u>CONSTRAINTID</u>	<u>VARCHAR2(20)</u>	<pk>
RHS	NUMBER(15,5)	
MARGINALVALUE	NUMBER(15,5)	

19 Package: METER_DATA

Name METER_DATA
Comment Wholesale market aggregated Meter data

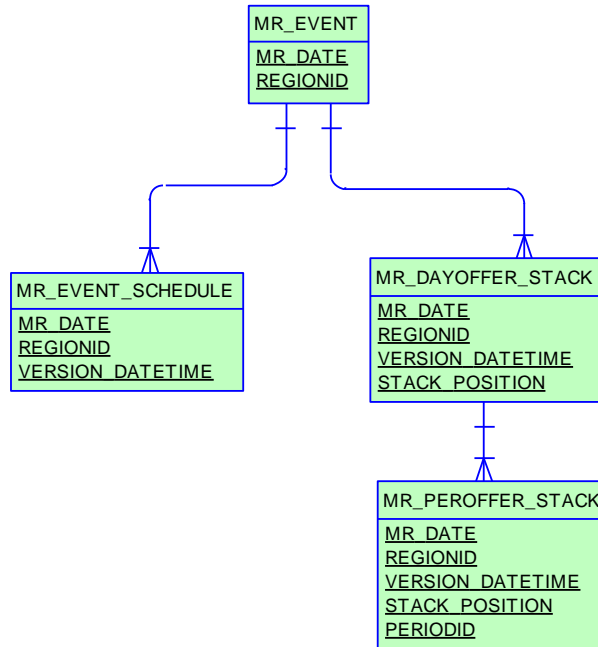
19.1 Diagram: Entities: Meter Data



20 Package: MREVENT

Name MREVENT
Comment Mandatory Restrictions Event data

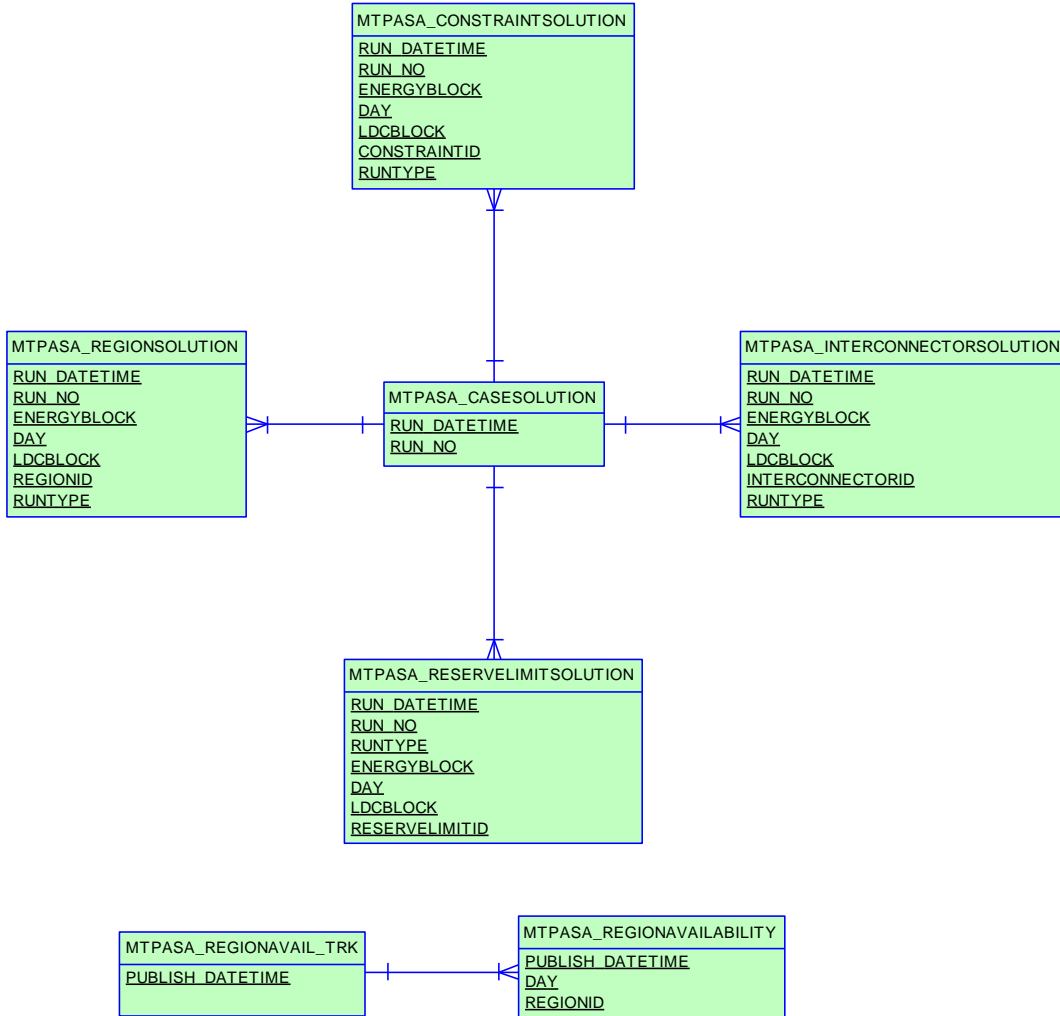
20.1 Diagram: Entities: MR Events



21 Package: MTPASA

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

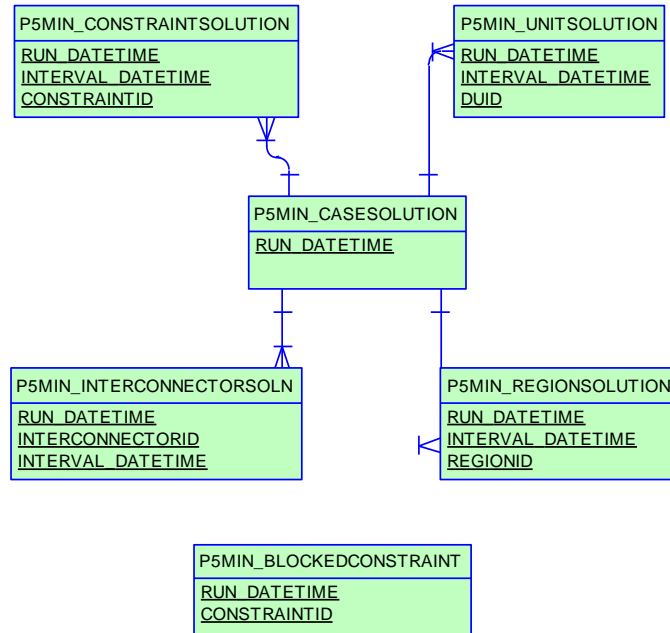
21.1 Diagram: Entities: MT PASA



22 Package: P5MIN

Name P5MIN
Comment Results from a published Five-Minute Predispatch Run

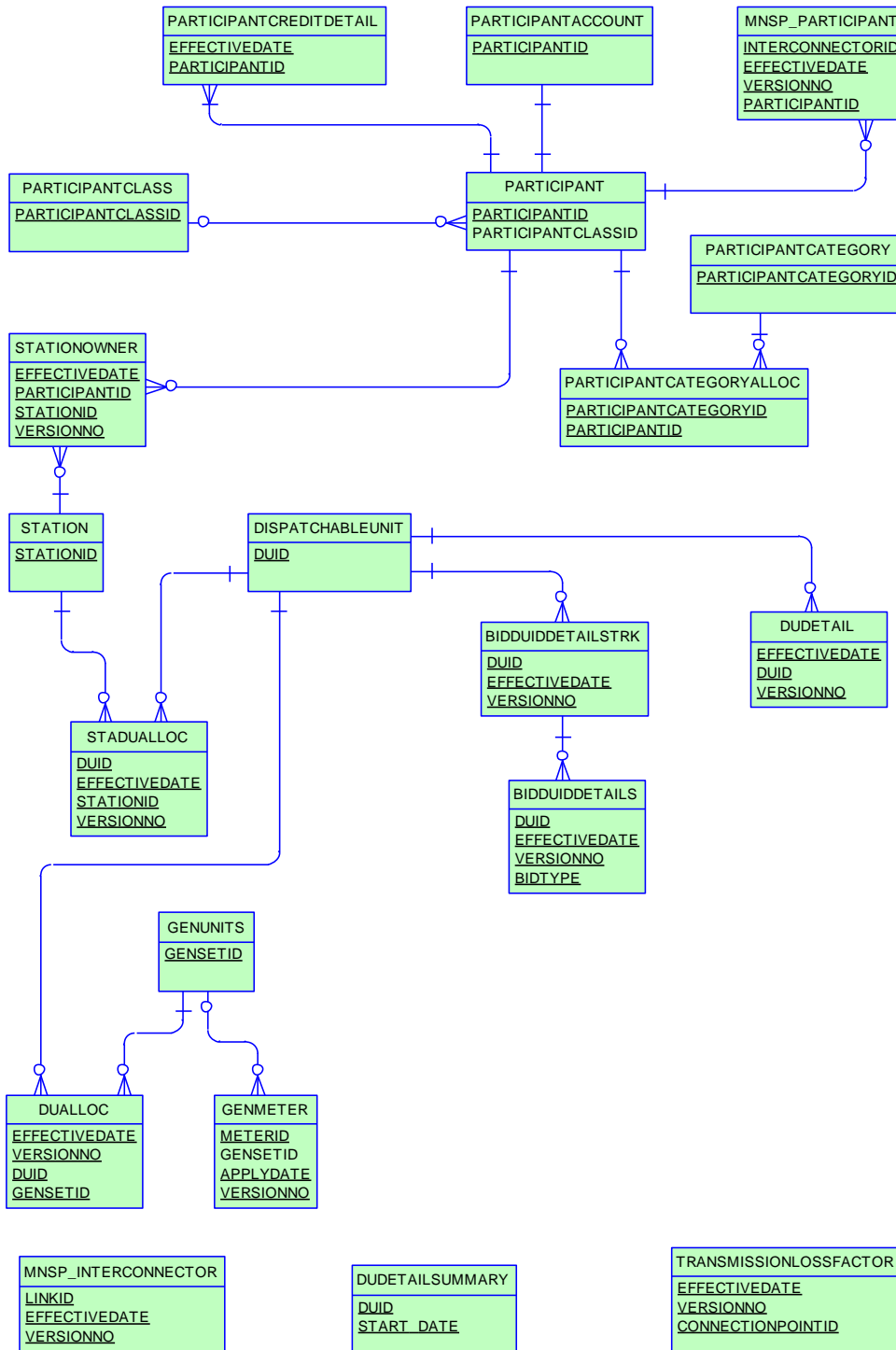
22.1 Diagram: Entities: P5MIN



23 Package: PARTICIPANT_REGISTRATION

Name PARTICIPANT_REGISTRATION
Comment Participant registration data

23.1 Diagram: Entities: Participant Registration



24 Package: PDPASA

Name PDPASA

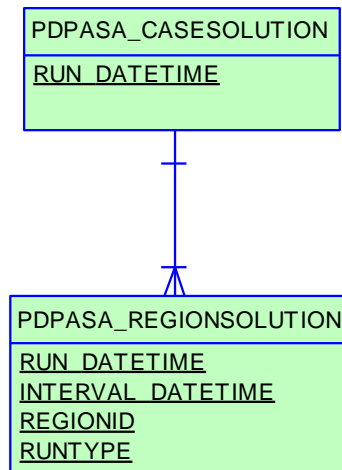
Comment The PDPASA package provides a 30-minute solving process to the Market systems

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

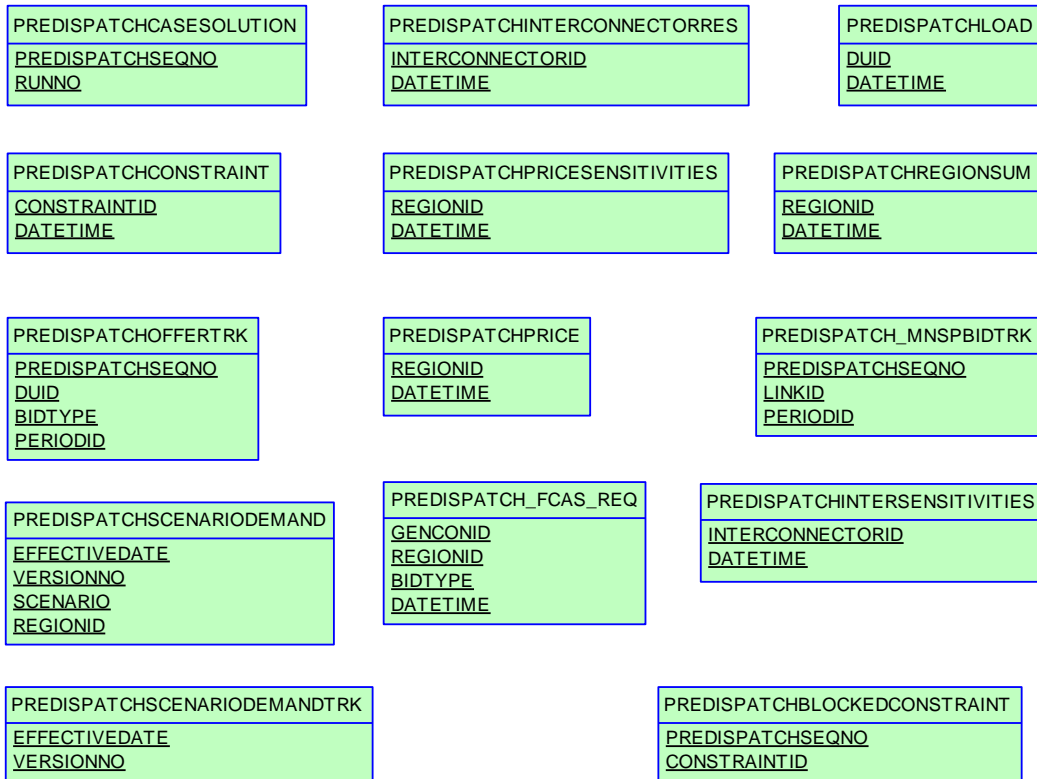
24.1 Diagram: Entities: PD PASA



25 Package: PRE_DISPATCH

Name PRE_DISPATCH
Comment Results from a published Predispatch Run

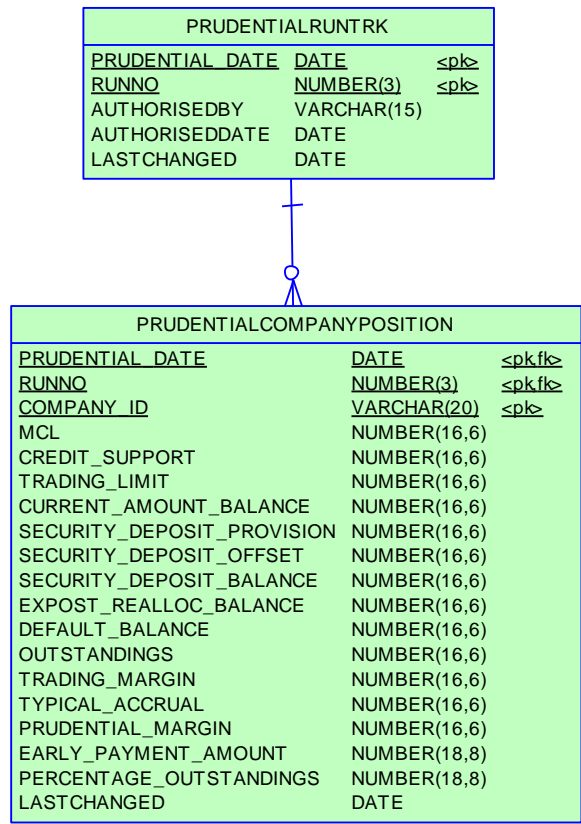
25.1 Diagram: Entities: Predispatch



26 Package: PRUDENTIALS

Name PRUDENTIALS
Comment Prudential Management

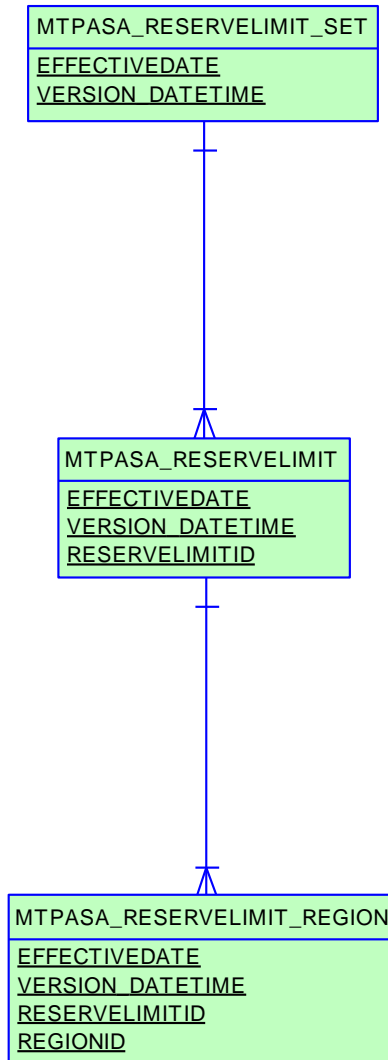
26.1 Diagram: Entities:Prudentials



27 Package: RESERVE_DATA

Name RESERVE_DATA
Comment Energy and FCAS reserve requirements

27.1 Diagram: Entities: Reserve Data

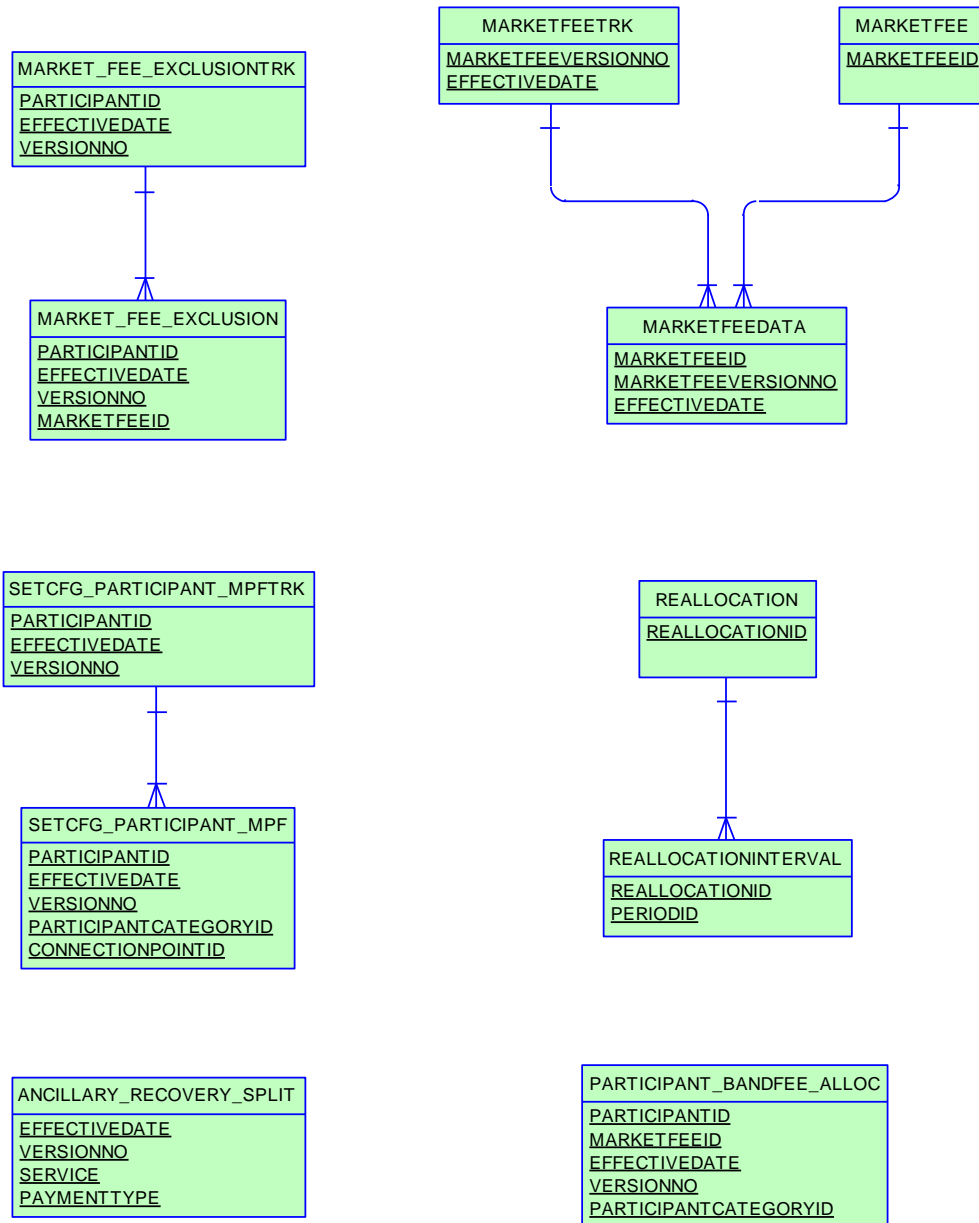


28 Package: SETTLEMENT_CONFIG

Name SETTLEMENT_CONFIG

Comment Configuration and input data for the Settlements Process

28.1 Diagram: Entities: Settlement Config

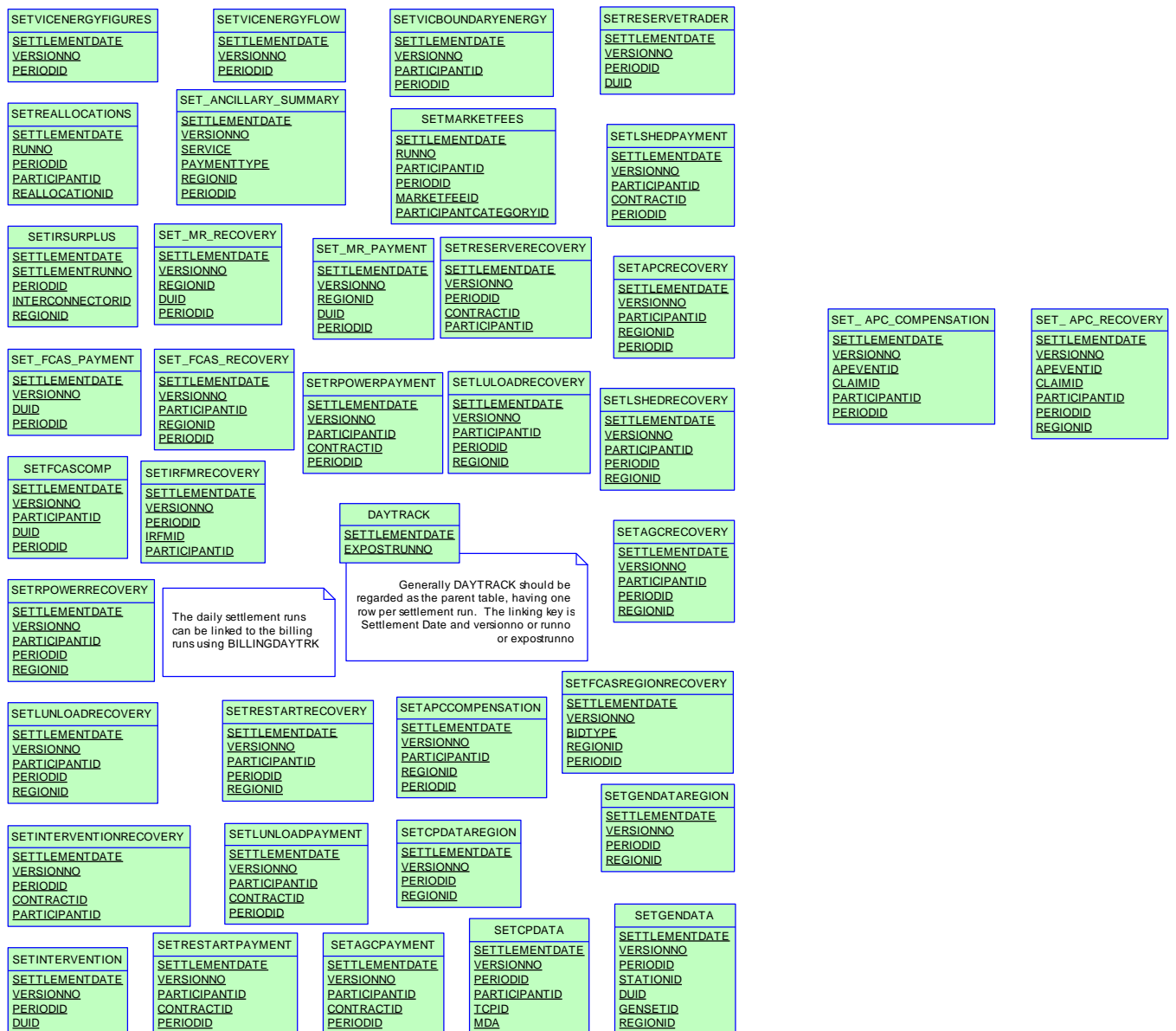


29 Package: SETTLEMENT_DATA

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.

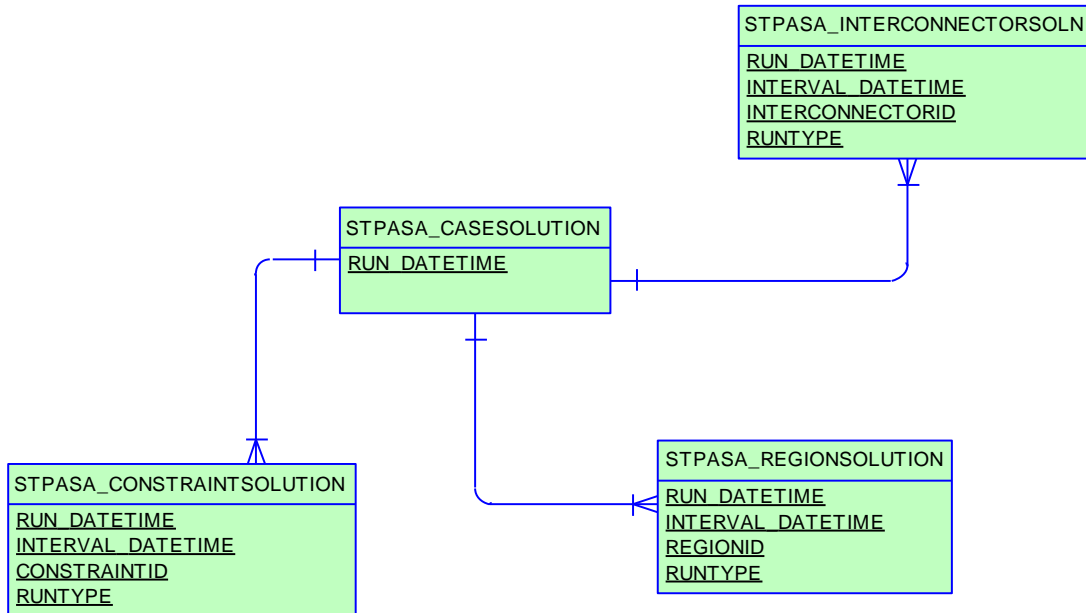
29.1 Diagram: Entities: Settlement Data



30 Package: STPASA_SOLUTION

Name STPASA_SOLUTION
Comment Results from a published Short Term PASA Run

30.1 Diagram: Entities: ST PASA Solution



31 Package: TRADING_DATA

Name TRADING_DATA
Comment 30 minute Trading interval results

31.1 Diagram: Entities: Trading Data

