Release Notes

EMMS Data Model v5.0

Last Updated: 25/11/2020

Data Model Release Location:

- FTP - 146.178.211.25
- Folder Path - \Releases\MMS Data Model\PreProduction\v5.0
- With this release, we have moved the PDF documentation out from the respective installers and now will be available in the releases folder and also published on AEMO web –
    - https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/data-nem/nemweb-help

- Also, the readme.txt is renamed to ReleaseNotes.pdf and available in the above Releases folder.

Important Information:

- **Only apply to your PREPRODUCTION Database.**
- **As of this release Participants can either subscribe to LEGACY or the CURRENT version of files. If both versions of files are subscribed, then the LEGACY will be automatically unsubscribed after a period of time.**

Following table lists possible scenarios for DM5.0 upgrade at a participant installation, but not limited to. Please assess your requirement before upgrading.

	Participant category	Upgrade tasks	Assumptions/Implications
1	Participant who submits ENERGY/FCAS bids in 5MS format and wants to upgrade to EMMS data model to V5.0 during Bid transition period.	• Apply DMv5.0 upgrade and subscribe to new 5MS version of BID and NEXT_DAY files. • Existing BID and NEXT_DAY files are marked as LEGACY and can be unsubscribed by the participant. Else AEMO automated process will unsubscribe the LEGACY version for the participant.	• Participant has fully tested and ready applications in place to deal with new BIDOFFERPERIOD table during the transition. (no data will be available for the BIDPEROFFER table as legacy BID and legacy NEXT_DAY files are unsubscribed).
2	Participant who does not submit ENERGY/FCAS bids and wants to upgrade EMMS data model to V5.0 during Bid transition period.	• Apply DMv5.0 upgrade. • Existing BID and NEXT_DAY files that have been marked as LEGACY will continue to receive into BIDPEROFFER table.	• Participant's systems are not ready to deal with new BIDOFFERPERIOD table until closer to 5MS start date. • But can subscribe to other Non 5MS reports to receive PASA & P5MIN price sensitivity

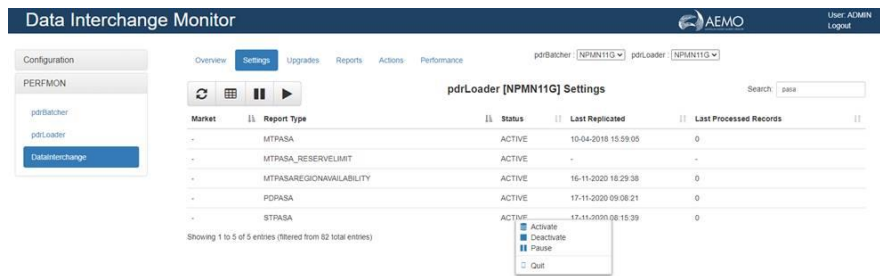|			changes when available.
3	Participants who does not upgrade to the latest DM5.0 by 5MS start date, will need to run the path script to keep their settlements files loading.	Run the patch script: • For Oracle- ORACLE_PATCH_SETTLEMENTS.sql • For SQLSERVER: MSSQLSERVER_PATCH_SETTLEMENTS.sql Patch script contains updated to below Settlements tables: ALTER TABLE SETIRAUCSURPLUS MODIFY PERIODID NUMBER(3,0); ALTER TABLE SETIRNSPSURPLUS MODIFY PERIODID NUMBER(3,0); ALTER TABLE SETIRPARTSURPLUS MODIFY PERIODID NUMBER(3,0);	• Participants haven't done the upgrade before the 5MS start date. • If PATCH script is not applied, then SETTLEMENTS file will fail to load. • Patch script can be fetched from Releases folder path. • Discontinued tables will not be populated. Please refer to discontinued tables section below

Steps to Note during Upgrade:

- Check your installed Data Model version by running the below query in your database:

```
select a.installation_date,a.install_type,a.script_version from
mms_data_model_audit a order by a.installation_date desc ;
```

- This DM5.0 Upgrade will take more time compared to other upgrades as there are changes in Primary key columns for the below tables.

- Please ensure that the Upgrade process is **NOT** interrupted. This is applicable to the participants subscribed to the below tables.

Table Name	No of rows	Runtime (Oracle)	Task Details
STPASA_CONSTRAINTSOLUTION	40 million	Approx 20min	add STUDYREGIONID, update column value to 'MARKET', drop existing PK and create new PK
STPASA_INTERCONNECTORSOLN	38 million	Approx 25min	add STUDYREGIONID, update column value to 'MARKET', drop existing PK and create new PK

o It is assumed PdrLoader is turned off during the Data Model upgrade. Alternatively, selective Report Types can be PAUSED using pdrMonitor, allowing other Report Types to be loaded. Please make sure the paused reports are ACTIVE once the upgrade is completed.

o The pdrLoader should be restarted after this operation completes as it caches table/PK definitions in memory for performance.

In Depth Info

CLI Upgrade

MMS Data Model Oracle 12c/19c, MSSQLServer 2014/2017 v5.0 ReleaseNotes.pdf, last updated 20201125

List of files in this release: MMS Data Model Oracle 12c/19c, MSSQLServer 2014/2017

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Special Note:
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1. Please allow sufficient time to complete the upgrade install.
2. The sample log files do not necessarily reflect the current release (e.g. NO_OF_TABLES may be different).

Previous Release: 4.30

The v4.30 release of the MMS Data Model was for the Mar2020 Wholesale Market Systems (MMS) Software Release.
For a description of the changes, refer to Change Notice EMMSS5MSSET10420 and subsequent updates.

If your database is not consistent with MMS Data Model v4.30, the result of running this upgrade is unreliable.

You need to schedule moving to the current MMS Data Model to ensure you can successfully apply future releases of 5MS upgrade scripts.

If you are intending to run this upgrade, review the upgrade carefully.

Details of the v5.0 upgrade

Run the v5.0 upgrade only on tables compliant with MMS Data Model v4.30.
For a description of the changes, refer to Change Notice EMMS521 and subsequent updates.

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Pre- Run Tasks:
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Ensure you have a current backup of your database. For much of the time in the upgrade process, the database is not in a useable state, so any major failure can leave your database as useless.

Ensure PDR_CONFIG_*_UPGRADE is applied, reflecting the pdrLoader configurations for this release.

Note: pdrLoader Configurations for new/updated MMS data model tables are delivered separately. Apply MMS data model changes first, then apply PdrLoader Config upgrade manually.

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Instructions:
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1. Copy the scripts from the \Build directory into a local directory, so the path contains no spaces. (Not all the scripts are needed for the upgrade; some are for a full create.)

2. Switch off any applications (e.g. pdrLoader) which modify the tables in question.

3. Run the UPGRADE_MMS_DATA_MODEL_MAIN.bat script.

   WARNING! Run only when you have time and space available.
   Enter database connection/user login details, Log directory location for upgrade installer output.

4. Check the logfiles being produced in the Log directory.

If an error occurs in any script other than the pre_alter_mms_data_model.sql and post_alter_mms_data_model.sql, the main log has a line containing the string "*** ERROR". You can then check the relevant log file(s) for more details.

When you are satisfied the upgrade is successful:
   a. Apply any required updates to applications (e.g. Parser and PDR) for modifying any of the affected tables.
   b. Re-enable any applications (e.g. PdrLoader) modifying any of the affected tables. Consider creating another backup.

GUI Upgrade

ALTERNATIVELY using GUI (simple and clean upgrade)

1. Turn off pdrLoader, so no data updates occur during upgrade.

2. Extract the Data model GUI installer zip specific to your database platform and run the executable jar file.

3. After accepting the License agreement, select 'MMSDM Upgrade' option.

4. Select Installation path directory. (e.g. C:\Temp , Installer will extract all the installer files to this directory).
   You may want to review the alter_mms_data_model.sql for the intended data model changes.

5. Proceed only when you have time and database free space available.

6. On Next, enter database credentials and connection details for the upgrade instance.

7. Check installer log files generated at Log directory(e.g. C:\Temp\Log).

Affected Tables

NEW TABLES	
5MS	AVERAGEPRICE30
	BIDOFFERPERIOD
	MNSP_BIDOFFERPERIOD
	BILLRESERVETRADERPAYMENT
	BILLRESERVETRADERRECOVERY
	SETLOCALAREAENERGY
	SETLOCALAREATNI
NON 5MS	MTPASA_DUIDAVAILABILITY
	PDPASA_CONSTRAINTSOLUTION
	PDPASA_INTERCONNECTORSOLN
	P5MIN_INTERSENSITIVITIES
	P5MIN_PRICESENSITIVITIES
	P5MIN_SCENARIODEMAND
	P5MIN_SCENARIODEMANDTRK
ALTERED TABLES	
5MS	BIDDAYOFFER
	BIDOFFERFILETRK
	MNSP_DAYOFFER
	BILLINGCPDATA

	DAYTRACK
	SETCPDATA
	SETIRAUCSURPLUS
	SETIRNSPSURPLUS
	SETIRPARTSURPLUS
	SETMARKETFEES
	DISPATCHOFFERTRK
	DISPATCH_MNSPBIDTRK
	PREDISPATCHOFFERTRK
	PREDISPATCH_MNSPBIDTRK
NON 5MS	DEMANDOPERATIONALACTUAL
	MTPASA_REGIONAVAILABILITY
	MTPASA_REGIONRESULT
	STPASA_CONSTRAINTSOLUTION
	STPASA_INTERCONNECTORSOLN

DISCONTINUED TABLES	
BIDPEROFFER	SETAGCPAYMENT
BILLING_MR_PAYMENT	SETAGCRECOVERY
BILLING_MR_RECOVERY	SETLULOADRECOVERY
BILLING_MR_SHORTFALL	SETLUNLOADPAYMENT
BILLING_MR_SUMMARY	SETLUNLOADRECOVERY
BILLINGSMELTERREDUCTION	SET_MR_PAYMENT
BILLING_RES_TRADER_PAYMENT	SET_MR_RECOVERY
BILLING_RES_TRADER_RECOVERY	SETVICBOUNDARYENERGY
GENUNITMTRINPERIOD	SETVICENERGYFIGURES
INTERCONNMWFLOW	SETVICENERGYFLOW
METERDATA	SETINTERVENTION
METERDATA_TRK	SETINTERVENTIONRECOVERY
METERDATATRK	SETFCASCOMP
MNSP_FILETRK	SETIRFMRECOVERY
MNSP_OFFERTRK	TRADINGREGIONSUM
MNSP_PEROFFER	TRADINGLOAD

Database version supported:

Oracle	Oracle 12c , 19c
MSSQLServer	2014/2017