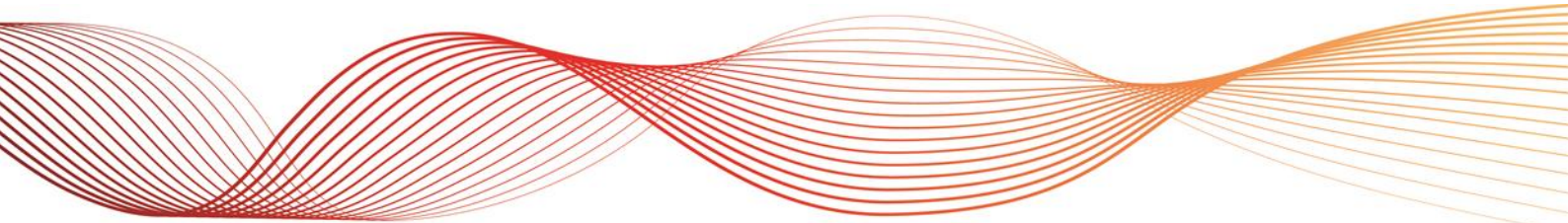




GUIDE TO EXTENDED PRE-DISPATCH REPORT

Published: **December 2017**





IMPORTANT NOTICE

Purpose

AEMO has prepared this document to provide information about the Extended Pre-dispatch report and to highlight the limitations of information published in the report.

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Introduction

The Extended Pre-dispatch report contains indicative regional reference prices, interconnector flows, binding constraint information as well as a projection of aggregate daily fuel use by gas-powered generation in the NEM.

The report is published to support the identification of a potential gas supply shortfall in the NEM as per the Gas Supply Guarantee Guidelines. The report also provides additional information to market participants to support their short term operations.

The report is not designed for use as an input to the valuation of forward energy market contracts.

Report Contents

The *Extended Pre-dispatch report* contains a selection of regional information prepared through the extended pre-dispatch process. A description of the report contents is outlined below in table 1.

Table 1 Report Contents

| Information Item | Description |
|-------------------------|---|
| GPG Fuel Forecast | Forecast of the aggregate daily fuel use by gas-powered generation across the NEM. The fuel (natural gas or liquid fuel) is measured in Tera joules (TJ). The fuel forecast is prepared by applying an assumed heat rate (fuel use per MWh) to the dispatch forecast prepared as part of the extended pre-dispatch processing. The fuel forecast is not available in the <i>Pre-dispatch report</i> . |
| Constraint Solution | Sets out constraints that are binding in the extended pre-dispatch run and interconnector constraints. Binding constraints that may contain confidential information are not published in the report. |
| Interconnector Solution | Includes forecast inter-regional flow as well as export and import limits. |
| Price Solution | Energy and Ancillary Service Regional Reference Prices by Trading Interval. |

Report fields shown in the Constraint Solution, Interconnector Solution and Price Solution include report fields that are published in the *Pre-dispatch report*. A description of these fields can be found in the *MMS Data Model Report*.

A [guide](#) to the format standard of CSV data reports can be found on the AEMO website.

Report Preparation

Information published in the *Extended Pre-dispatch report* is prepared by AEMO through the extended pre-dispatch process. Like pre-dispatch, the extended pre-dispatch process utilises the NEM dispatch engine (NEMDE) to calculate results. The extended pre-dispatch process and report publication is performed a small number of times a day. In comparison, the pre-dispatch process is run every 30 minutes.

It should be noted by users of the report that SCADA information may be captured at a different time to pre-dispatch. As such, it is possible for pre-dispatch and extended pre-dispatch results to vary across the pre-dispatch horizon.

Inputs to the extended pre-dispatch process are outlined below in table 2.

Table 2 Inputs

| Input | Comment | Comparison to Pre-dispatch |
|-------------------------------------|--|--|
| Registration data | Unit registration data is standing data that is initially submitted by the market participant and subsequently authorised by AEMO as part of the dispatchable unit registration process for participation in energy and ancillary services dispatch | As per pre-dispatch |
| Energy & FCAS Dispatch offers/bids | Extended pre-dispatch uses bids, containing price band and quantities, submitted by market participants for dispatch in the energy and ancillary service markets. There is no obligation in the National Electricity Rules on a generator to provide a bid to AEMO outside of the pre-dispatch window. For trading intervals where a generator has not provided a bid to AEMO in the extended pre-dispatch period, their most recent valid bid is used in the preparation of the report. | This variation from pre-dispatch may impact the accuracy of information in the report and as such is important to note by users of the <i>Extended Pre-dispatch report</i> . |
| Demand forecast | Extended pre-dispatch uses the most probable (50% probability of exceedance) short term energy demand forecast for each region. For details on load forecasting methodology refer to SO_OP_3710 (Load Forecasting) | Short term forecast used outside pre-dispatch horizon. Short term forecast is also an input to STPASA. |
| Ancillary service requirements | The process uses a regional FCAS requirement for each FCAS service for each trading interval. This is implemented in the form of FCAS type constraints. For further information see the Constraint Implementation Guidelines on the AEMO website. | As per pre-dispatch. |
| Network Constraints | Limits on the operation of dispatchable units and interconnectors are implemented in the NEMDE algorithm using constraint equations. These constraints may represent “system normal” type limits or may be invoked for planned outages of transmission equipment as advised by the relevant NSPs. Constraints for planned outages may include both energy and FCAS requirements. | As per pre-dispatch. |
| Wind and solar generation forecasts | The Australian Wind Energy Forecast System (AWEFS) and the Australian Solar Energy Forecast System (ASEFS) provide the unconstrained intermittent generation forecasts (UIGF), or max availability, for semi scheduled wind farms and solar farms respectively. They are also used to calculate the level of non-scheduled wind and solar generation. | Short term forecasts used outside of the pre-dispatch window |
| SCADA | Latest unit, region and network data. | SCADA information may be captured at a different time to pre-dispatch. |



| Input | Comment | Comparison to Pre-dispatch |
|------------|--|--|
| Heat rates | Heat rates are applied to the dispatch results of the extended pre-dispatch processing to prepare the GPG fuel usage presented in the report. Heat rate assumptions are as per the 2016 NTNDP. https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/National-Transmission-Network-Development-Plan/NTNDP-database | Not used in the preparation of pre-dispatch. |

Reference documents

Table 3 Reference documents

| Document | Location |
|--|---|
| Constraint Implementation Guidelines | http://www.aemo.com.au/-/media/Files/Electricity/NEM/Security_and_Reliability/Congestion-Information/2016/Constraint-Implementation-Guidelines.pdf |
| Guide to AEMO CSV Data Format Standard | https://www.aemo.com.au/-/media/Files/Electricity/NEM/IT-Systems-and-Change/2016/AEMO_CSV_Data_Format_Standard_v3_01.pdf |
| Guide to Ancillary Services in the National Electricity Market | https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/Ancillary-services |
| Guide to the Congestion Information Resource | https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/Congestion-information |
| SO_OP_3704 – Pre-dispatch | https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/Power-system-operation |
| SO_OP_3710 - Load Forecasting | https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/Power-system-operation |