INDICATIVE EXTRAPOLATION INPUT DATA FOR 2017-18 MARGINAL LOSS FACTORS

FOR THE NATIONAL ELECTRICITY MARKET

Published: **October 2016**

AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

IMPORTANT NOTICE

Purpose

AEMO has prepared this document to provide indicative projections of generation to be used in the Marginal Loss Factor (MLF) calculation for the 2017-18 financial year, assuming unchanged historical generation dispatch data were used as an input to the MLF calculation process.

This information is provided to help Generators identify whether historical generation data for their plant will produce unrepresentative MLFs for the 2017-18 financial year based on changed physical circumstances. Participants may submit proposed adjusted generation profiles for the 2017-18 MLF calculation to AEMO by 18 November 2016.

AEMO publishes this document in accordance with clause 5.5.6 of the Methodology for Calculating Forward Looking Marginal Loss Factors (version 6.0). This publication is based on information available to AEMO at the time of publication.

Disclaimer

This document or the information in it may be subsequently updated or amended. This document does not constitute legal or business advice, and should not be relied on as a substitute for obtaining detailed advice about the National Electricity Law, the National Electricity Rules, or any other applicable laws, procedures or policies. AEMO has made every effort to ensure the quality of the information in this document but cannot guarantee its accuracy or completeness.

Accordingly, to the maximum extent permitted by law, AEMO and its officers, employees and consultants involved in the preparation of this document:

- make no representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of the information in this document; and
- are not liable (whether by reason of negligence or otherwise) for any statements or representations in this document, or any omissions from it, or for any use or reliance on the information in it.

1. INTRODUCTION

The National Electricity Rules (NER) require AEMO to calculate inter-regional loss equations and intra-regional loss factors each year, and publish the factors by 1 April for the financial year commencing on 1 July. The calculation is performed in accordance with the Methodology for Calculating Forward Looking Transmission Loss Factors (Methodology)[1].

Historical generation dispatch data and forecast demand data are used as inputs to the loss factor calculation, which uses the minimal extrapolation process, as described in the Methodology, to produce forecast generation dispatch data by balancing supply and demand.

Historical generation dispatch data might not accurately represent anticipated generation patterns, and could therefore result in MLFs that are not representative of likely generation in the target year.

Clause 5.5.6 of the Methodology describes the process and requirements for submitting a proposed adjusted generation profile to be used in lieu of an historical generation profile for the MLF calculation.

AEMO has now published indicative historical and extrapolated generation dispatch data for the 2017-18 MLF calculation. This information is provided to help Generators to identify whether the historical generation profiles will be unrepresentative of expected generation dispatch for the 2017-18 year, due to changed physical circumstances affecting their plant, in accordance with clause 5.5.6.

[1] http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/-/media/D3A1DB20E82A4B9FB37200A7FF2C8480.ashx

2. ASSUMPTIONS

The purpose of the indicative extrapolation study is to provide an indication of the generation forecast that will be used in calculation of the 2017-18 marginal loss factors. The historical generation used for the purposes of this forecast is based on data from the 2015-16 financial year.

As part of the calculation process, AEMO will continue to analyse and check these generation forecasts. Consequently the final generation forecasts used in calculation of the 2017-18 marginal loss factors may differ to those presented in this report.

This study incorporates the following simplifying assumptions:

- Consumption forecasts have been approximated but accord with the 2016 NEFR[2] operational annual energy consumption (neutral scenario) forecasts, published on 16 June 2016.
- New loads considered are limited to transmission connected loads greater than 50 MW.
- Load reductions considered are limited to transmission connected loads greater than 50 MW.
- Generator capacities are equal to those on the Generation Information Page[3] published on August 2016.
- New generation considered is limited to large generating systems.
- New transmission augmentations are not considered, except for augmentations related to the Ballarat - Moorabool No. 3 line and the Deer Park Terminal Station in Victoria.

To calculate the 2017-18 MLFs, AEMO modified historical data from the 2015-16 financial year to:

- Include forecast load at Deer Park Terminal Station.
- Remove generators at Northern Power Station, Playford B Power Station, and Smithfield Energy Facility.
- Include:
    - White Rock wind farm in New South Wales.
    - Mt Gellibrand wind farm in Victoria.
    - Hornsdale wind farm stage 2 and Waterloo wind farm expansion in South Australia.

[2] http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/National-Electricity-Forecasting-Report
[3] http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/Generation-information

3. RESULTS

The results of this study are provided as a separate document on AEMO's website with this report.

The results provide the following information in relation to scheduled generating units:

- Historical generation, as monthly energy for each Transmission Node Identifier (TNI) from the 2015-16 financial year.
- Forecast generation, as monthly energy for each TNI for the 2017-18 financial year based on AEMOs indicative extrapolation study.
- Energy limit based on historical generation. The current Consultation on the Forward Looking Loss Factor Calculation Methodology[4] proposes limiting dispatchable generation based on a five-year historical average. The energy limits that would be applied for 2017-18, should the proposed Methodology change be accepted, have been listed in the accompanying document as an indication.

Information on semi-scheduled and non-scheduled generation (e.g. wind farms, solar farms) is not included, in line with clause 5.5.2 of the Methodology, and the output of these generators are not adjusted.

Basslink flows have been modelled at the historical figure of approximately 564 GWh net flowing from Victoria to Tasmania. The flow on Basslink is closely related to generation in Tasmania.

The generation forecast used in calculation of the 2017-18 MLFs may differ from those published in this report. Reasons for a change include, but are not limited to:

- A Generator providing revised generation profiles in accordance with the Methodology, which are accepted by AEMO.
- Updated information that may be used for the final 2017-18 MLF calculation.

[4] http://aemo.com.au/Stakeholder-Consultation/Consultations/Forward-Looking-Loss-Factor-Calculation-Methodology-Consultation-2016

4. SUBMISSION DUE DATE

Participants may submit proposed adjusted generation profiles for the 2017-18 MLF calculation to mlf.process@aemo.com.au, in line with clause 5.5.6 of the Methodology. The due date for submissions is **18 November 2016**.

In accordance with clause 5.5.6 of the Methodology, AEMO will then consider whether to accept any proposed adjustments for the 2017-18 MLF calculation. Submissions received after the due date may not be able to be considered by AEMO.