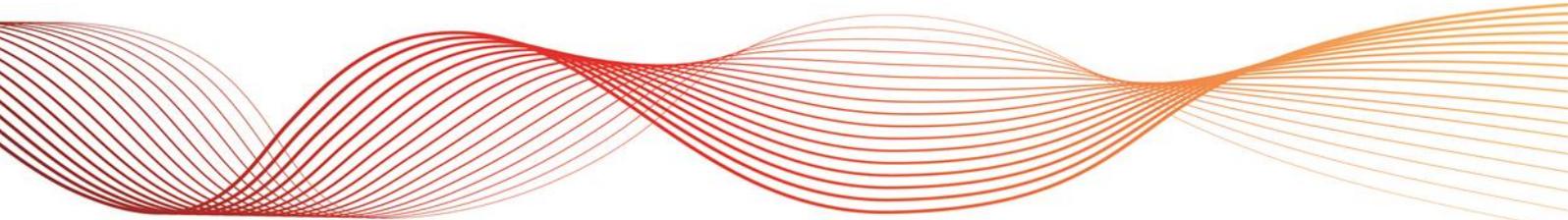# INDICATIVE EXTRAPOLATION INPUT DATA FOR 2018–19 MARGINAL LOSS FACTORS

FOR THE NATIONAL ELECTRICITY MARKET

Published: **October 2017**

IMPORTANT NOTICE

Purpose

AEMO has prepared this document to provide indicative projections of generation to be used in the Marginal Loss Factor calculation for the 2018–19 financial year. The generation projections are indicative only, using historical dispatch data.

AEMO publishes this document in accordance with clause 5.5.6 of the Methodology for Calculating Forward Looking Marginal Loss Factors (version 7.0). This publication is based on information available to AEMO at the time of publication.

Disclaimer

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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 Forward-Looking Transmission Loss Factors methodology (Methodology).[1]

AEMO uses historical generation dispatch profiles and forecast demand profiles as inputs to the loss factor calculation, then applies the minimal extrapolation process (as described in the Methodology) to the historical generation to produce forecast generation dispatch to ensure supply and demand is in balance.

Historical generation dispatch profiles might not accurately represent anticipated generation patterns, and could therefore result in marginal loss factors (MLFs) that are not representative of likely generation in the target year. To address this, clause 5.5.6 of the Methodology describes the process and conditions in which AEMO may use an adjusted generation profile proposed by a Generator in lieu of a historical generation profile for the MLF calculation.

AEMO has now published indicative historical and extrapolated generation forecasts for the 2018–19 MLF calculation. This information is provided to help Generators to identify whether the historical generation profiles and the extrapolated generation forecast produced in accordance with the Methodology will be unrepresentative of expected generation dispatch for their plant in the 2018–19 year.

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 2018–19 MLFs. The historical generation used for the purposes of this forecast is based on data from the 2016–17 financial year.

AEMO will continue to analyse and check these generation forecasts. Consequently, the final generation forecasts used in calculation of the 2018–19 MLFs may differ from those presented in this report.

This study incorporates the following simplifying assumptions:

- Consumption forecasts have been approximated, but accord with AEMO's 2017 *Electricity Forecasting Insights*[2] operational annual energy consumption (neutral scenario) forecasts, published in June 2017.
- 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 5 June 2017.
- New generation considered is limited to large generating systems.

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[1] AEMO. *Forward-Looking Transmission Loss Factors*, Version 7.0, effective 8 February 2017. Available at: http://www.aemo.com.au/-/media/Files/Electricity/NEM/Security_and_Reliability/Loss_Factors_and_Regional_Boundaries/2017/Forward-Looking-Loss-Factor-Methodology-v70.pdf.
[2] Available at: http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/Electricity-Forecasting-Insights.
[3] Available at: http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/Generation-information.

To calculate the 2018–19 MLFs, AEMO modified historical data from the 2016–17 financial year to include:

- Lakeland Solar and Storage project (former Cook Shire solar), Clare Solar Farm, Hamilton Solar Farm, Mount Emerald Wind Farm, and Whitsunday Solar Farm, in Queensland.
- White Rock Wind Farm, Williamsdale Solar Farm, Parkes Solar Farm, Griffith Solar Farm, Manildra Solar Farm, and Gullen Range Solar Farm (expansion), in New South Wales.
- Mt Gellibrand Wind Farm, Gannawarra Solar Farm, Yaloak South Wind Farm, and Kiata Wind Farm, in Victoria.
- Hornsdale Wind Farm Stage 3, and Bungala One and Two solar projects, in South Australia.

3. RESULTS

The results of this study are provided as a separate spreadsheet on AEMO's website with this report.[4]

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 2016–17 financial year.
- Forecast generation, as monthly energy for each TNI for the 2018–19 financial year based on AEMO's indicative extrapolation study.
- Energy limits, based on historical generation that would be applied for 2018–19, have been listed in the accompanying spreadsheet as an indication.

In line with clause 5.5.2 of the Methodology, AEMO has not included information on semi-scheduled and non-scheduled generation (such as wind farms and solar farms), and the output of these generators is not adjusted.

AEMO has modelled Basslink flows at the historical figure of approximately 315 gigawatt hours (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 2018–19 MLFs may differ from those published in this report. Reasons for a change may include, but are not limited to:

- AEMO's acceptance of any adjusted generation profiles provided by Generators in accordance with the Methodology.
- Updated information that may be used for the final 2018–19 MLF calculation.

4. SUBMISSION DUE DATE

Registered Generators may submit proposed adjusted generation profiles for the 2018–19 MLF calculation to mlf.process@aemo.com.au, in line with clause 5.5.6 of the Methodology.

AEMO will then consider whether to accept any proposed adjustments for the 2018–19 MLF calculation. Generators should carefully consider the requirements and conditions for acceptance in clause 5.5.6 before making submissions.

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[4] Spreadsheet is available at: http://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Security-and-reliability/Loss-factor-and-regional-boundaries

The due date for submissions is **15 November 2017**. AEMO may not be able to consider submissions received after the due date.