

## NOTICE

Ernst & Young was engaged on the instructions of Ausgrid Finance Pty Ltd ('Client') to conduct a mathematical review of certain models and model linkages (the 'Models') used to support Ausgrid's submission for the FY25-29 regulatory period to the Australian Energy Regulator ('AER') (the 'Project'), in accordance with the engagement agreement dated 14 November 2022.

The results of Ernst & Young's work, including the assumptions and qualifications made in preparing the report, are set out in Ernst & Young's report dated 09 January 2023 ('Report'). The Report should be read in its entirety, including the cover letter, the applicable scope of the work and any limitations. A reference to the Report includes any part of the Report. No further work has been undertaken by Ernst & Young since the date of the Report to update it.

Ernst & Young has prepared the Report for the benefit of the Client and has considered only the interests of the Client. Ernst & Young has not been engaged to act, and has not acted, as an advisor to any other party. Accordingly, Ernst & Young makes no representations as to the appropriateness, accuracy or completeness of the Report for any other party's purposes.

Our work commenced on 14 November 2022 and was completed on 09 January 2023. No further work has been undertaken by EY since the date of the Report to update it, and EY has no responsibility to update the Report to take account of events or circumstances arising after that date. Therefore, our Report does not take account of events or circumstances arising after 09 January 2023.

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The analysis and Report do not constitute a recommendation on a future course of action.

In order to meet its regulatory submission requirements, the Client has requested Ernst & Young to allow the Report to be accessed by AER and to allow AER to publish electronically on the AER's website. Ernst & Young has consented to the Report being published electronically on the AER's website for informational purposes only. Ernst & Young has not consented to distribution or disclosure beyond this. The material contained in the Report, including the Ernst & Young logo, is copyright. The copyright in the material contained in the Report itself, excluding Ernst & Young logo, vests in the Client. The Report, including the Ernst & Young logo, cannot be altered without prior written permission from Ernst & Young.

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**Review of Regulatory  
Models: FY25-29  
Regulatory Period**

**Ausgrid Finance Pty Ltd**

**09 January 2023**

[REDACTED]

Ausgrid Finance Pty Ltd  
Level 17  
24-28 Campbell Street  
Sydney NSW 2000  
[REDACTED]

09 January 2023

Dear Fiona

## **Review of Regulatory Models: FY25-29 Regulatory Period**

In accordance with our agreement (the 'Agreement') dated 14 November 2022 addressed to yourselves ('Ausgrid', 'you' or the 'Client'), we planned and performed the review, using reasonable skill and care, in the context of your requirements, of certain models and model linkages (the 'Models') used to support Ausgrid's submission for the FY25-29 regulatory period to the Australian Energy Regulator ('AER') (the 'Project'). The scope and limitations to the scope of our work, including our terms of business, are set out in the Agreement and this report ('Report') should only be read in conjunction with the Agreement.

We have not been required to express any opinion on the validity of the underlying commercial assumptions or risks associated with the Project or on the possibility of the financial projections being achieved, and our opinion therefore provides no comfort on these matters. The Models and their commercial assumptions referred to in the preparation of this Report reflect the judgement of the Client and its advisers, based on present circumstances, as to both the most likely set of conditions and future courses of action.

It is usually the case that some events and circumstances do not occur as expected or are not anticipated. Therefore, actual results will almost always differ from the forecasts and such differences may be material. To the extent that our conclusions are based on forecasts, we express no opinion on the achievability of those forecasts.

The above procedures do not constitute an audit in accordance with Australian Auditing Standards or a review in accordance with Australian Auditing Standards applicable to review engagements. Had we performed additional procedures or had we performed an audit in accordance with Australian Auditing Standards or a review in accordance with Australian Auditing Standards applicable to review engagements, other matters might have come to our attention that would have been reported to you.

In performing our review, we have relied upon various explanations provided by yourselves in response to our comments and queries raised during the course of our review.

## **Background**

As part of your regulatory process, Ausgrid is required to submit a regulatory proposal to the AER. The submission will set out, amongst other things, proposed revenue requirements over the FY25-29 regulatory period.

The submission is required to include a suite of models that cover the revenue requirements and pricing for both standard control services and alternative control services, such as metering services and public lighting.



## Scope of work

For the purpose of this Report, different review procedures have been conducted for different Models:

- ▶ The Models subject to the full scope mathematical accuracy and logical integrity review are defined in Section 1 (the 'Models'); and
- ▶ The Models subject to the data consistency agreed upon procedures review are defined in Section 2 (the 'External Links Models').

Our scope of work includes the following:

1. Full scope review of the base case Models (refer Section 1), including review of the structural, computational and mathematical (formulaic) integrity of the Models; and
2. Data consistency agreed upon procedures review of the External Links Models (refer Section 2), including review of the external links between the External Links Models and separate external data sources.

## Section 1: Full scope mathematical accuracy and logical integrity review procedures

### 1.1 The Models

The Models have been developed by you in connection with the Project. The objective of the Models is to calculate revenue requirements and pricing for both standard control services and alternative control services, such as metering services and public lighting.

The base case Models are composed of the files listed below:

- ▶ Revenue Control: '1. Revenue Control File.xlsm', dated 09 December 2022 and size 849,071 bytes;
- ▶ Rate of Return: '21. Rate of return.xlsx', dated 08 December 2022 and size 26,968 bytes;
- ▶ Assets Changing Classification: '14. Assets changing classification FY24-29.xlsx', dated 08 December 2022 and size 13,889,218 bytes;
- ▶ Step Changes: '19. Opex step changes model.xlsx', dated 08 December 2022 and size 203,143 bytes;
- ▶ Capitalised Land Leases: '20. Capitalised land leases.xlsx', dated 08 December 2022 and size 44,657 bytes;
- ▶ Network Pricing Model: 'Price\_setting\_model\_16\_Dec\_22.xlsm', dated 23 December 2022 and size 6,528,082 bytes;
- ▶ LRMC Consumption Model: 'Attachment 8.4 Import LRMC model.xlsx', dated 14 December 2022 and size 943,655 bytes;
- ▶ LRMC Export Model: 'Attachment 8.5 Export LRMC model.xlsx', dated 08 December 2022 and size 655,219 bytes;
- ▶ Escalation Model: 'Single source escalation\_121022.xlsx', dated 02 November 2022 and size 106,922 bytes;
- ▶ Customer Service Incentive Scheme: 'CSIS Metrics v1.xlsx', dated 08 December 2022 and size 62,395 bytes;
- ▶ CSIS Compliance Model: 'CSIS compliance.xlsx', dated 08 December 2022 and size 114,183 bytes;

- ▶ Public lighting Fixed Charges: 'Ausgrid 2024-29 - Pre 2009 Fixed Charges\_10122022.xlsm', dated 22 December 2022 and size 18,130,144 bytes;
- ▶ Public Lighting Model: 'Ausgrid - 2024-29 - Public Lighting Model - v3.xlsm', dated 30 December 2022 and size 996,949 bytes; and
- ▶ Public Lighting Input Model: 'AGD - 2024-29 - Public Lighting Input Template - v3.xlsx', dated 30 December 2022 and size 582,820 bytes.

## 1.2 Model Review Findings

A full list of issues identified coded as Category A or B or C or Queries using the following definitions has been provided during the course of the Engagement:

- ▶ Category A: Affects the calculations in versions of the Model within the scope of our review.
- ▶ Category B: May affect the calculations under assumptions outside the scope of our review.
- ▶ Category C: Unclear or bad practice. May affect the user's interpretation of the results, but does not necessarily affect the calculations.
- ▶ Queries: Questions asked to increase understanding of the calculations with the express intention of identifying errors.

Category A issues are those which required correction in order to produce results which are materially reliable under the terms of this review. These issues have been resolved to our satisfaction.

Category B and C issues did not have to be corrected for the purpose of this review, but may represent a risk to users of the Model under assumptions other than those we have considered. These issues have been resolved to our satisfaction.

## Section 2: Data consistency agreed upon procedures – external links review procedures

### 2.1 Agreed Upon Procedures

We have performed a series of agreed upon procedures to test the consistency of data through the suite of External Links Models. This entailed reviewing external links to confirm that:

- ▶ Cells that link to external data sources reference the appropriate row and column in the external data sources;
- ▶ Cells that link to external data sources reference figures in nominal/real dollars as appropriate.

### 2.2 The External Links Models

The base case External Links Models are composed of the files listed below:

- ▶ PTRM for Distribution and Dual Function Assets: '4. PTRM Dx 2024-29.xlsm', dated 15 November 2022 and size 2,413,223 bytes;
- ▶ PTRM for Transmission and Dual Function Assets: '5. PTRM Tx 2024-29.xlsm', dated 15 November 2022 and size 2,439,001 bytes;
- ▶ RFM for Distribution and Dual Function Assets: '2. RFM Dx 2024-29.xlsm', dated 15 November 2022 and size 2,834,872 bytes;

- ▶ RFM for Transmission and Dual Function Assets: '3. RFM Tx 2024-29.xlsm', dated 15 November 2022 and size 2,838,198 bytes;
- ▶ Depreciation for Distribution and Dual Function Assets: '12. Depreciation Dx 2024-29.xlsm', dated 15 November 2022 and size 5,034,231 bytes;
- ▶ Depreciation for Transmission and Dual Function Assets: '13. Depreciation Tx 2024-29.xlsm', dated 15 November 2022 and size 3,665,909 bytes;
- ▶ OPEX: '8. Opex Model 2024-29.xlsm', dated 15 December 2022 and size 160,536 bytes;
- ▶ Standardised Capex Model: 'AER - Standardised SCS Capex Model - PIP 12.5FY22\_20221017.xlsm', dated 15 November 2022 and size 1,402,790 bytes;
- ▶ CESS for Distribution and Dual Function Assets: '9. DNSP 2024-29 - Reset RIN - Workbook 4 - Ausgrid Dx CESS - 7 Nov 2022.xlsx', dated 15 November 2022 and size 102,111 bytes;
- ▶ CESS for Transmission and Dual Function Assets: '10. DNSP 2024-29 - Reset RIN - Workbook 4 - Ausgrid Tx CESS - 7 Nov 2022.xlsx', dated 15 November 2022 and size 101,486 bytes;
- ▶ EBSS Model: '11. DNSP 2024-2029 - Reset RIN - Workbook 3 - Efficiency Benefit Sharing Scheme.xlsm', dated 15 November 2022 and size 185,824 bytes;
- ▶ Metering PTRM: 'Ausgrid Metering PTRM - 2024-29.xlsm', dated 03 January 2023 and size 2,187,103 bytes;
- ▶ Metering RFM: 'Metering Type 5-6 RFM 2024-29.xlsm', dated 29 December 2022 and size 2,663,611 bytes;
- ▶ Standardised Metering Opex and Capex Model: 'Ausgrid - Standardised Metering Capex and Opex Model - 2024-29.xlsm', dated 03 January 2023 and size 432,753 bytes;
- ▶ Standardised Metering Pricing Model: 'Ausgrid - Standardised Metering Pricing Model - 2024-29.xlsm', dated 03 January 2023 and size 219,669 bytes; and
- ▶ Standardised ANS Model: 'Ausgrid - ANS forecast model 2024-29.xlsx', dated 15 November 2022 and size 14,236,182 bytes.

The following external data sources contained in the External Links Models have been excluded from the scope of this review:

- ▶ 'Immediate expensing\_191022.xlsx';
- ▶ '7. PTRM capex inputs FY25-29 PIP12.7.xlsx';
- ▶ '20210712\_AusgridModel\_V1.228.00 - FY23 BP.xlsm';
- ▶ '17. AER - Final Decision - Ausgrid 2019-24 - Dx CESS model\_Adj for Actual FY19 capex.xlsx';
- ▶ 'Ausgrid DX FD PTRM - 2023-24 RoD Update - Nov 2022 reg reset\_alt RoD.xlsm';
- ▶ '18. AER - Final Decision - Ausgrid 2019-24 - Tx CESS model\_Adj for Actual FY19 Capex.xlsx';
- ▶ 'Ausgrid TX FD PTRM - 2023-24 RoD Update - Nov 2022 reg reset\_alt RoD.xlsm';
- ▶ 'DORIS - D19-58417 AER - Ausgrid Distribution 2019-24 reset - Final Decision RFM - April 2019.XLSM';
- ▶ 'Ausgrid DX FD PTRM - 2022-23 RoD Update - incl 2020 storm pass through.xlsm';
- ▶ 'Ausgrid 2018-19 - Annual RIN - Consolidated - 31 October 2019 - PUBLIC(10355131.2).xlsx';
- ▶ 'Table 8.2.1 to 8.2.6 Capex Jun2020 v6 (revised 18.08.21 with updated forecast).xlsx';
- ▶ 'Table 8.2.3 to 8.2.6 Capex Jun2021(02.09.21) HC\_revised 14.09.22.xlsx';
- ▶ 'Table 8.2.3 to 8.2.6 Capex Jun2022 (incl SaaS adj) HC\_revised 01.09.22.xlsx';

- ▶ '20210712\_AusgridModel\_V1.231.03 - FY23 BP .xlsb';
- ▶ 'FY23-FY24 workings for PIP12.7.xlsx';
- ▶ '20210712\_AusgridModel\_V1.231.10 - FY23 BP V23.xlsb';
- ▶ 'DORIS - D19-58420 AER - Ausgrid Transmission 2019-24 reset - Final Decision RFM - April 2019.XLSM';
- ▶ 'Ausgrid TX FD PTRM - 2022-23 RoD Update.xlsm';
- ▶ 'AR RIN Table 8.2 Capex 2019-22.xlsm';
- ▶ 'Supp file\_FY20 mvt prov.xlsm';
- ▶ 'Supp file\_FY20 DMIA.xlsm';
- ▶ 'Escalator Summary Table\_Ausgrid 2022\_5.9.22.xlsx';
- ▶ 'Output Forecast from Reset RIN Tables\_091222.xlsm';
- ▶ '8. Opex Model 2024-29.xlsx';
- ▶ '7. PTRM capex inputs FY25-29 PIP12.8.xlsx';
- ▶ 'Ausgrid - 2024-29 - Metering Input Template - 2022.07.12.xlsx';
- ▶ 'AER - Final decision - Ausgrid 2019-24 - Metering Type 5-6 RFM - Public - April 2019.xlsm';
- ▶ 'AER - Final decision - Ausgrid 2019-24 - Metering PTRM and pricing model - Public - April 2019.xlsm';
- ▶ 'RFM - Metering 2019-24\_FY21.xlsm';
- ▶ '6. RFM capex inputs FY25-29.xlsx';
- ▶ 'Forecast disposals for 2024-29 reg proposal.xlsx';
- ▶ 'Single source escalation\_141122.xlsx';
- ▶ 'AER Final decision Ausgrid distribution determination - Ausgrid 2015 - Metering PTRM - April 2015.xlsx';
- ▶ 'Ausgrid - 2024-29 - Metering Input Template - 2022.07.';
- ▶ 'Forecast real escalators\_300922.xlsx'; and
- ▶ 'ANS labour rates 2019 calculation\_derived OH.xlsx'.

You have instructed us to limit the extent of the procedures that we would normally perform, by not reviewing all external data sources within the External Links Models. We therefore stress that a more extensive review may reveal material errors that our limited scope review has not.

## 2.3 Limitations

We have not been required to review the logical and mathematical accuracy of any of the underlying External Links Models or external data sources, except as those specified in section 1. Consequently, we provide no comfort as to the mathematical and logical accuracy of these External Links Models and external data sources. Furthermore, we note that the review was limited to consideration of the consistency of labelling between linked cells only.

In addition, as set out above, we have not reviewed any other external data sources contained in the External Links Models. Any errors relating to those external data sources contained in the External Links Models, which impact on the final outputs considered by you, would not be detected by us as part of this review.

## Findings Summary

### Section 1: Full scope mathematical accuracy and logical integrity review

Our procedures included a detailed line by line review of the base case Models, together with an analytical review and other procedures designed to test the draft Models' logical integrity.

Subject to the scope of our review, based upon the work we have performed, nothing has come to our attention to suggest that the Models have not been constructed appropriately, in so far as its logical integrity and arithmetic is concerned, so as to materially achieve the objective described above under the base case assumptions.

Please note that our findings relate to the base case Models, reflecting the assumptions contained and selected in the version of the Models that we have reviewed. We have performed no scenario or sensitivity testing as part of this review.

It is possible that certain combinations of assumptions (including extreme values outside the designated limits) could produce unexpected results. The user is advised that, if assumptions or input data are changed, the resulting output should be reviewed to ensure that the results are not materially misstated.

### Section 2: Data consistency agreed upon procedures – external links review

Subject to the scope of our review and the Limitations described above, based upon the work we have performed, nothing has come to our attention to suggest that the linkages between the External Links Models and external data sources do not function appropriately.

## Distribution of this Report

Our Report is addressed to yourselves. The Report has been prepared on your specific instructions solely for the purpose of the Project and should not be used for or relied upon for any other purpose.

This Report and its contents are confidential and may not be quoted, referred to or shown to any other parties under no circumstances except with our prior written consent or as provided in the Agreement. We accept no responsibility or liability to any person other than to the Client, or to such party to whom we have agreed in writing to accept our responsibility in respect of this Report, and accordingly if any other persons choose to rely upon any of the contents of this Report they do so at their own risk.

No claim or demand or any actions or proceedings may be brought against EY arising from or connected with the contents of the Report or the provision of the Report to any other party. We disclaim all liability to any third party for all costs, expenses, loss, damage and liability the third party may suffer or incur arising from or relating to or in any way connected with the contents of our Report, the provision of our Report to any third party or reliance on our Report by the third party. We will be released and forever discharged from any such claims, demands, actions or proceedings.

We understand that you will disclose the Model Review report to the AER. We have agreed to allow this to occur on the basis that you have acknowledged and agreed that our report: 1) is addressed solely to you; 2) is prepared solely on the basis of instructions received from you; and you acknowledge and agree that 3) AER will not acquire any rights against us (as defined in our Engagement Letter) and is not entitled to rely upon drafts of our Report or this Report.

Our work should not be described, or referred to, in documents provided to third parties without our prior written consent. When we consent to our review work being described to third parties, those third parties should be provided with the full text of our report including the appendices.

Neither our findings nor other material related to this engagement including the Report are to be included in any public offer document or information memorandum or other financial document.

We thank you for the opportunity of assisting you in this matter. If you have any queries in relation to this report, please do not hesitate to contact me on ([REDACTED])

Yours sincerely

A large, solid dark grey rectangular box used to redact the signature of the sender.