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This report is not intended to be read or used by anyone other than Energy Queensland Limited or the Australian Energy regulator in connection with its review of revenue proposals submitted by Energy Queensland Limited.

We prepared this report solely for Energy Queensland Limited's use and benefit in accordance with and for the purpose set out in our engagement letter with Energy Queensland Limited dated 6 November 2019 and the report. In doing so, we acted exclusively for Energy Queensland Limited and considered no-one else's interests.

We accept no responsibility, duty or liability:

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- even if we consent to anyone other than Energy Queensland Limited receiving or using this report.



Energy Queensland Limited
26 Reddacliff Street
Newstead QLD, 4006

Attention: Matthew Dooley, Manager External Reporting and Policy

6 December 2019

Dear Matthew

Report on your Cost Allocation (CAM) model¹

We have completed our work under our engagement letter with Energy Queensland Limited (EQL you or Client) dated 6 November 2019. We are pleased to provide you with this report on your model related to the Reconciliation of the CAM adjustment applied to the 2018/19 base year SCS Opex to support the Ergon and Energex 2020-25 determination (Project) with the objectives and procedures of the engagement set out in the Findings section of this report.

The model

In this report 'the model' refers to the Excel spreadsheet identified below.

<i>Electronic file name</i>	<i>Size (KB)</i>	<i>Last modified (date & time)</i>	<i>MD5 identifier*</i>
CAM Reconciliation - Working V5.xlsx	3,191	4 December 2019 16:23PM	eb988c14b6afb74c66fce40ea3bf18cf

* The MD5 hash of a file can be reconfirmed using tools that are available at: <http://code.kliu.org/hashcheck/>

¹ CAM models and documentation referred in this report applies the AER approved CAM effective 1 July 2020

- Energex: <https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/cost-allocation-method/energex-cost-allocation-method-2018>
- Ergon Energy: <https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/cost-allocation-method/ergon-energy-cost-allocation-method-2018>



Our procedures

We performed the procedures set out in the Findings section on the earlier versions of the model you provided for this purpose. After performing the specified procedures on each earlier version of the model, we provided you with lists of the potential errors, queries, undocumented assumptions and design issues we identified (*issues lists*). We discussed each issues list with you and you responded to the issues raised in writing and/or by making changes to the relevant version of the model. We relied on your responses to the issues lists in preparing this report. The procedures as outlined in the Findings section were applied to the final version of the model as defined above and associated data files and documents as defined in Appendix C. Our findings are based on this the final version of the model.

At our request, you also provided written clarification of your interpretation of some of the model's key assumptions, input data and source documentation. We have also relied on this clarification in preparing this report. Otherwise, we based this report solely on the interpretation of the model's assumptions, input data and source documentation that was apparent to us. As our services did not include legal services, we did not interpret agreements or other documents as lawyers. Our services did not include any legal, tax or accounting advice and we did not act as your financial advisor.

Please note:

- we did not check whether the model is consistent with any supporting project documentation, except to the extent required to perform the specified procedures relating to objectives 2a and 2b;
- we did not check whether the accounting assumptions and outputs from the model are in accordance with the relevant accounting standards;
- we did not check whether the tax assumptions and outputs from the model are in accordance with the relevant tax legislation; and
- we only checked the specific link from the model to any source files that the model is linked to in accordance with the relevant row and column narratives. We did not check any of the calculations in the underlying source files (refer Appendix C).

Findings

We understand that you have certain objectives for the model as listed below:

- The calculations in the model are in all material respects internally consistent and arithmetically correct.
- Input data used in the model is consistent with the extracts from supporting AER approved CAM documentation and data assumptions you give us for this purpose.
- Calculations in the model, reflect the corresponding definitions in the AER approved CAM documentation as agreed with you for this purpose.

To address these objectives, we performed the procedures agreed with you that are set out below on the final model:

	Your objectives for the model	Specified procedures
1	The calculations in the model are in all material respects internally consistent and arithmetically correct.	<p>(a) Use spreadsheet analysis software to identify:</p> <ul style="list-style-type: none"> • inputs, formulas and labels • inconsistencies in formulas replication • hidden, hard coded or hardwired assumptions embedded in formulas • unused inputs • cells returning excel errors • range names and their properties • external links • hidden sheets • similarities between manually selected worksheets and ranges <p>(b) Perform manual code inspection of model formulas and linkages, using Excel trace functions to trace forward from inputs to outputs.</p> <p>(c) Use row and column narratives to indicate the purpose of calculations and units of measure.</p> <p>(d) Check whether the formulas are consistent with the row and column narratives</p> <p>(e) Check whether the mathematical calculation of the formulas is consistent with the model's row and column narratives based on our understanding of the intended purpose of the model and on the procedures performed.</p> <p>(f) Check whether any links between the model and any source files that the model references are consistent with the model's corresponding row and column narratives based on our understanding of the intended purpose of the model and on the procedures performed.</p>
2a	Input data used in the model is consistent with the extracts from supporting AER approved CAM documentation and data assumptions* you give us for this purpose.	Perform a one directional check of the data assumptions from the extracts of supporting CAM business rules documentation to inputs in the model.
2b	Calculations in the model, reflect the corresponding	Perform a one directional check from the CAM business rules to the model to check whether



	definitions in the AER approved CAM documentation as agreed with you for this purpose.	calculations are in accordance with agreed extracts of the CAM documentation.
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** The extracts of the AER approved CAM documentation and data assumptions checked as part of procedures 2(a) and 2(b) are set out in Appendix A.*

We have completed all specified procedures as identified above on the model and have not identified any issues that would indicate to us that your objectives have not been met.

The key outputs of the model as defined by you are summarised in Appendix B.

You are responsible for determining whether the specified procedures meet your needs and for making your own decisions in light of all relevant information available to you. We make no representation that the specified procedures are sufficient for determining whether your model meets your objectives (as identified above) or that our work will disclose all matters of significance to you. You are also responsible for the model and all assumptions and input data, and for all decisions relating to the Project. We do not express any opinion on how the Project's results may compare with the model's projections.

Because our work did not constitute an audit or review in accordance with Australian Auditing Standards, we do not express any conclusion or provide any assurance on the model or its outputs or its explicit or implicit numerical, commercial, or logical assumptions.



Use of report

We provide this report solely to help you assess whether your financial model meets those of your objectives for the model which are identified in the Findings section. We consent to you providing a copy of our report to Australian Energy regulator in connection with its review of revenue proposals submitted by Energy Queensland Limited, on the basis that our services and report are not for their use or benefit and we do not accept any duty or liability to them. It is not intended to be used in connection with any warranties you may give in connection with the Project or in any agreement or for any purpose other than that for which it is provided or by anyone other than you. We do not accept any responsibility or liability to you for the consequences of your use of our report for a purpose other than that for which it is provided or to any other party for the consequences of use of this report for any purpose.

Yours faithfully

A handwritten signature in black ink, appearing to read 'A. Wellington', is written over a light grey rectangular background.

Andrew Wellington
Partner
PricewaterhouseCoopers



Appendix A – Documents and relevant extracts

Project document received:

Cost Allocation Method Business Rules, Version 1.0. (Filename ‘*CAM Business Rules 2020-25 Version 1.0.docx*’)

Relevant Extracts

- Appendix C - Allocation To Legal Entities Based On Labour (first table on page 18)
- Appendix D - Allocation To Services Based On Direct Distribution Labour (formula at the bottom of page 19)
- Appendix E - Distribution Three Factor Method Allocation (page 20)
- Appendix F - Corporate Three Factor Method Allocation (page 21)



Appendix B – Outputs of the model

Energex

2018/19 CARIN	SCS Opex	350.2M
Operational change	SPARQ Asset Usage Fee	(9.2M)
		(9.2M)
CAM change	Distribution three factor method	5.6M
CAM change	Other CAM driver changes	6.5M
		12.1M
Adjustment	SCS Opex adjustment	2.9M
2018/19 CARIN with adjustment		353.2M

Ergon Energy

2018/19 CARIN	SCS Opex	392.5M
Ergon Energy Overhead Recoveries True-up		(12.6M)
Operational change	SPARQ Asset Usage Fee	(12.6M)
Cost alignment	Fleet depreciation	(8.2M)
Cost alignment	Change in financial accounting manual for shared (support) costs	43.0M
		9.7M
CAM change	Introduction of distribution three factor method	(5.6M)
CAM change	Other CAM driver changes	1.2M
		(4.4M)
Adjustment	SCS Opex adjustment	5.3M
2018/19 CARIN with adjustment		397.8M



Appendix C – External Files

<i>Electronic file name</i>	<i>MD5 identifier*</i>
2.1 Expenditure Summary Working 2019 EGX.xlsx	5cae7372422c45398eac8d61a15ba31f
3.0 LOB by RC, Activity and Element 2019 v2.3 (NPNICWadj).xlsx	99731d6a46b60e2fb57c8fc8c55e78d
7.0 Template 2.10 - Working File Main 2019 v2.4 (NW Dir Adj 24.10.2019) - CAM Reconciliation.xlsx	029b6boede8b16aa21e2b1fb4bd3fbc9
191024 Workings .xlsx	b932ff8db6f2ea32559167110370309c
191027 - Ergon fleet costs.xlsx	6f68b4e6054100bbbf9e41977f1bb92
191030 1 GL classification and summaries.xlsx	7cod54e0930105bcb53ada64a8a51894
Energex Combined Mapping - CAM Reconciliation v2.xlsx	94c5b7dd60aef4ebac33334a82e8467
Ergon Overheads.xlsx	703346f024d586c2c466a55coba71d38
Reconciliation.xlsx	48884b09e4963dd36fb863a3cf40719b

