19 October 2018

Mr Evan Lutton
Assistant Director, Networks Branch
Australian Energy Regulator
GPO Box 520
MELBOURNE VIC 3001

Dear Mr Lutton

Draft Annual Benchmarking Report: Electricity distribution network service providers

Energex Limited (Energex) and Ergon Energy Corporation Limited (Ergon Energy) welcome the opportunity to provide comment to the Australian Energy Regulator (AER) on its draft *Annual Benchmarking Report: Electricity distribution network service providers* (the draft Annual Benchmarking Report).

Energex and Ergon Energy remain generally supportive of the use of economic benchmarking as a technique to compare distribution network service providers' (DNSPs') efficiency with their peers, inform assessments of proposed expenditure requirements and assist in the revenue determination process. Energex and Ergon Energy also support the AER's program of ongoing development of economic benchmarking through incremental refinement of the benchmarking methodology and data. However, Energex and Ergon Energy consider that further development is required to ensure reliable and meaningful comparisons between DNSPs.

Energex and Ergon Energy would welcome being involved in any further engagement with the AER and other stakeholders in the development of further improvements to economic benchmarking methodology and data.

Should you require additional information or wish to discuss any aspect of the attached submission, please do not hesitate to contact either myself on (07) 3851 6416 or Trudy Fraser on (07) 3851 6787.

Yours sincerely

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Annual Benchmarking Report: Electricity distribution network service providers

Joint response to the Australian Energy Regulator's draft report

19 October 2018

Part of the Energy Queensland Group

ABOUT ERGON ENERGY

Ergon Energy Corporation Limited (Ergon Energy) is part of the Energy Queensland Group and manages an electricity distribution network which supplies electricity to more than 740,000 customers. Our vast operating area covers over one million square kilometres – around 97% of the state of Queensland – from the expanding coastal and rural population centres to the remote communities of outback Queensland and the Torres Strait.

Our electricity network consists of approximately 160,000 kilometres of powerlines and one million power poles, along with associated infrastructure such as major substations and power transformers.

We also own and operate 33 stand-alone power stations that provide supply to isolated communities across Queensland which are not connected to the main electricity grid.

ABOUT ENERGEX

Energex Limited (Energex) is part of the Energy Queensland Group and manages an electricity distribution network delivering world-class energy products and services to one of Australia's fastest growing communities – the South-East Queensland region.

We have been supplying electricity to Queenslanders for more than 100 years and today provide distribution services to almost 1.4 million domestic and business connections, delivering electricity to a population base of around 3.4 million people via 52,000km of overhead and underground network.

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INTRODUCTION

Energex Limited (Energex) and Ergon Energy Corporation Limited (Ergon Energy) welcome the opportunity to provide comment to the Australian Energy Regulator (AER) on its draft *Annual Benchmarking Report: Electricity distribution network service providers* (the draft Annual Benchmarking Report).

The National Electricity Rules (NER) require the AER to prepare and publish an annual benchmarking report describing the relative efficiency of each Distribution Network Service Provider (DNSP) in providing direct control services. The purpose of the benchmarking report is to enable the AER (and other stakeholders) to assess and compare the relative cost efficiency of each DNSP participating in the National Electricity Market (NEM). The draft Annual Benchmarking Report covers the period 2006-17 and is the fifth benchmarking report for DNSPs published by the AER.

Energex and Ergon Energy are largely comfortable with the AER's draft Annual Benchmarking Report, particularly in light of the refinements made to the benchmarking methodology (i.e. the inclusion of more information about material differences in operating environments, additional partial performance indicators and the adoption of additional econometric models). We are also pleased to note the generally favourable results achieved by the Queensland network businesses. However, Energex and Ergon Energy continue to have some reservations about the application of benchmarking across DSNPs and look forward to working with the AER and other stakeholders on further improvements to methodology and data that will allow more reliable and meaningful comparisons.

The AER has requested submissions on the draft Annual Benchmarking Report by Wednesday, 17 October 2018. This submission, which is available for publication, is provided by Energex and Ergon Energy as DNSPs operating in Queensland. We are available to discuss this submission or provide further detail regarding the issues raised.

GENERAL COMMENTS

Energex and Ergon Energy are generally supportive of the use of economic benchmarking as a technique to compare DNSPs' efficiency with their peers, inform assessments of proposed expenditure requirements and assist in the revenue determination process.

Energex and Ergon Energy are pleased to note from the draft Annual Benchmarking Report that the Queensland network businesses improved their relative productive efficiency in 2017 (measured by multilateral total factor productivity (MTFP)). As noted by the AER, Ergon Energy's improvement (seven per cent) and Energex's improvement (one per cent) is largely attributable to efficiencies achieved through various jurisdictional reforms implemented in recent years, including the merger of Energex and Ergon Energy under the parent company Energy Queensland Limited.

It should also be noted that both Energex and Ergon Energy have achieved significant vegetation management efficiencies over recent years. These efficiencies have been realised as a result of changes to our vegetation management strategies and processes, as well as alterations to our contractual arrangements with service providers and greater management intervention. Ergon Energy has experienced further improvement during 2017-18, but expects the benefits from those efficiency gains to flatten in future years. Conversely, Energex is expecting to continue to realise significant gains until approximately 2020. However, the use of a five year average by the AER in its Annual Benchmarking Report will mean that it will take some time before our efficiency scores will fully reflect these improvements. Therefore, the current efficiency scores do not reflect Energex's and Ergon Energy's relative efficiency in the most recent regulatory reporting year.

Energex and Ergon Energy continue to support the AER's program of ongoing development of economic benchmarking through incremental refinement of the benchmarking methodology and data. It is noted that in developing its draft Annual Benchmarking Report for 2018, the AER has included the following additional material:

- more information about material differences in operating environments that exist between the various DNSPs participating in the NEM that may have an impact on a DNSP's measured productivity;
- additional benchmarking models and techniques to more broadly assess the prudency and efficiency of individual DNSPs; and
- updated output weights for productivity index models.

However, while we acknowledge that these additions will address some concerns raised previously by stakeholders, Energex and Ergon Energy consider that further development is required to ensure reliable and meaningful comparisons between DNSPs. Specifically, Energex and Ergon Energy consider that further focus is required by the AER on ensuring that there is:

- ***More consistent interpretation and approaches taken by DNSPs in preparing the Regulatory Information Notice (RIN) data***

  Energex and Ergon Energy are concerned that differences in interpretation and approaches taken by DNSPs in the preparation of their RIN data may significantly impact benchmarking results. For example, there are varying approaches and interpretations taken by the various DNSPs in the reporting of vegetation management data. While work is currently underway to address consistency issues through Energy Networks Australia (ENA), it should be recognised that inconsistencies do exist and consideration given to excluding specific measures from benchmarking until consistency in interpretation and application is agreed and implemented. Alternatively, we ask the AER to acknowledge the potential impact of such differences on the results contained in the Annual Benchmarking Report and the fact that the RIN data set is still maturing. Some stakeholders may not be aware that changes in accounting practices (amongst other things) can significantly influence year-on-year variations, but not reflect any change in efficiency.

- ***An overall improvement in data quality***

  In our view, data quality should continue to be a very important focus for the AER. It is essential that data quality issues and other anomalies are identified and corrected to ensure an accurate data set is available to enable valid benchmarking results.

  In recent regulatory reporting periods, Energex and Ergon Energy have undertaken significant reviews of our network mapping and conducted field inspections to correct our data which has contributed to significant improvements in the accuracy of some reported RIN variables. However, some of these data quality improvements cannot be back cast which means that the data reported each year represents the best data available at that time.

  Energex and Ergon Energy are committed to continuing our focus on improving the quality of our data. However, the rate of improvement in data quality will be impacted by various factors, including the requirement for system changes, staff training and the vast volume and geographical spread of our network assets. Of significance, the Energy Queensland Group is undertaking a digital transformation towards becoming a utility of the future by implementing a fully digital system where our systems and

data, and therefore our people, are better connected. This transformation will not only provide improved data capabilities, but also further improve the quality of our data. However, in the meantime, there will likely continue to be some data quality issues until a baseline data set is obtained.

In summary, Energex and Ergon Energy recommend that the AER should note in the body of the Annual Benchmarking Report that the RIN data set is immature and some year-to-year movements will reflect data quality corrections rather than relative changes in efficiency between DNSPs.

- ***Greater clarity over how benchmarking data provided by DNSPs will be applied by the AER***

  It remains unclear how the AER will apply the annual benchmarking results for revenue determination purposes, including the use of the Stochastic frontier analysis (SFA) translog model and operating expenditure multilateral partial factor productivity (MPFP) for base-year assessment purposes. It is also unclear how the AER intends to make an allowance adjustment for operating environment factors (OEFs). Further guidance within the report would assist in our understanding.

- ***Appropriate use of back cast operating expenditure for network services on the basis of forward looking cost allocation method (CAM)***

  The AER has used operating expenditure data for 2015-16 and 2016-17 in the draft Annual Benchmarking Report which it requested Ergon Energy to re-cast using superseded CAMs.

  At the time of providing the data requested, concerns were raised that this appeared inconsistent with the Economic Benchmarking (EB) RIN obligations which require DNSPs to present historical data recast to reflect current or future CAM changes. Table 3.2.2 (Current Cost Allocation Approach) is also supported by the NER and the AER's *Cost Allocation Guidelines* requirements as noted by the AER in its EB RIN Explanatory Statement as follows:

  > *"However our position is consistent with the NER requirement for NSPs to categorise their historical opex in accordance with that of their forecasts in their regulatory proposals (NER, Schedule 6 clauses S6.1.1(6), S6.1.2(7), S6A.1.1(6) and S6A.1.2(7)). These NER requirements provide that NSPs must quantify the effect on historical opex of any change in their capitalisation policies. Further our cost allocation guidelines provide that we may make amendments to cost allocation methods (CAMs) conditional on NSPs restating*

their historic or forecast financial information on a basis that is consistent with the amended CAM."

The AER uses benchmarking to determine operating expenditure allowances for the base year of each regulatory control period. The base year allowance is determined using the AER's preferred econometric Cobb-Douglas SFA model where:

- If the DNSP's proposed operating expenditure in the base year is assessed as meeting the AER's target efficiency level (as determined by the AER's preferred econometric model), then the DNSP's proposed operating expenditure in the base year will be rolled forward using a rate of change formula to determine allowances for the regulatory control period; and

- If the DNSP's base year operating expenditure is assessed to be materially below the target efficiency level (as determined by the AER's preferred econometric model), then it may be adjusted downwards by the assessed amount of inefficiency before the adjusted target amount is rolled forward using the rate of change formula.

In order to be able to compare a DNSP's proposed operating expenditure in the base year with the AER's assessment of the target efficiency levels in the base year on a like-for-like basis, it would be necessary for both figures to be based on a consistent set of CAMs. Therefore, the set of costs used by the AER's benchmarking models needs to be consistent with the basis of costs entering the DNSP's base year proposals. As the base year allowance is rolled forward to determine the allowable operating expenditure in each year of the upcoming regulatory control period, it is important for the AER's assessment to be based on the DNSP's latest CAMs.

SPECIFIC COMMENTS

Comments on specific issues and / or errors Energex and Ergon Energy have identified or conclusions made by the AER in the draft Annual Benchmarking Report are provided below.

3.1 Emergency response expenditure

Ergon Energy is concerned that the current data used to calculate the emergency response expenditure excluding major event days (MEDs) has been calculated as total emergency response expenditure (as shown in part A of the Category Analysis (CA) RIN Template 2.9) less MED operating and maintenance (O&M) expenditure (as shown in part C of the CA RIN Template 2.9). Further, the definitions included in the CA RIN require the MED O&M expenditure (as shown in part C of the CA RIN Template 2.9) to be calculated as the "daily operating expenditure incurred on each date of those major event days and summing up the expenditure for each event".

However, given the vast geographical area covered by the Ergon Energy network and the nature of the damage caused by severe weather events such as cyclones, there can be a significant delay between when the MED occurs and the commencement of emergency response works (and therefore significant delays in when the operating expenditure is incurred).

We therefore recommend that the AER should consider changing the calculation of this variable to total emergency response expenditure less major events O&M expenditure (i.e. part (a) of CA RIN Template 2.9 less the total of part (b) of CA RIN Template 2.9).

3.2 Vegetation management

Energex and Ergon Energy have concerns about the use of the current data set from the CA RIN Template 2.7 (Vegetation Management) for benchmarking purposes. Specifically, we are concerned that the difference in approaches and interpretations applied by the various network service providers makes vegetation management benchmarking results meaningless.

As mentioned previously, Energex and Ergon Energy are currently working with other DNSPs through ENA to reduce those differences and improve the comparability of vegetation management data. As a result of this work, it is anticipated that, in the coming years, the data reported in the CA RIN Template 2.7 will be a valuable source of data for benchmarking. However, until common approaches and interpretations

have been agreed and applied by all DNSPs, we recommend that the current limitation is recognised in the AER's Annual Benchmarking Report, or alternatively, that vegetation management benchmarking is delayed.

3.3 Reliability

Figures C.4 (page 58) and C.5 (page 59) in the draft Annual Benchmarking Report depict a five-year average of Ergon Energy's overall Service Target Performance Incentive Scheme (STPIS) unplanned performance for both System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI). It should be noted that:

- Ergon Energy's underlying unplanned reliability performance over the past five years shows a slight increase in the duration of unplanned outages of three per cent and a reduction in the frequency of outages of six per cent.
- Ergon Energy's reliability performance for 2016-17 was favourable against all six STPIS performance measures.
- The difference between the actual performance and the STPIS targets was greater than ten per cent for five of the six measures.
- The long rural SAIDI category was the only measure that did not outperform STPIS targets by greater than ten per cent for 2016-17.
- The severity of the summer storm seasons experienced across much of Ergon Energy's supply region in financial years 2014-15 and 2015-16 had a pronounced influence on the performance of the rural networks.

Achieving performance in the rural network segments that is consistently favourable to the STPIS targets is a challenge for Ergon Energy. The annual variability in supply interruptions occurring in the rural areas is influenced significantly by the severity of weather events and in general by longer term weather patterns. Further, the duration of the supply interruption events in these areas is extended (by comparison to the urban areas) because of the vast geographical spread of assets serviced by the regional depots and the interruption exposure resulting from the predominantly radial arrangement of the supply chain in this network type.

3.4 2013-14 Category Analysis RIN data

It is important to note that the 2013-14 CA RIN data was completed on a different basis compared to other regulatory reporting years. The AER required Energex and Ergon Energy to provide the CA RIN information for the 2013-14 regulatory year as

part of the Reset RIN process. Importantly, the Reset RIN required Energex and Ergon Energy to report information based on the new cost allocation methods (CAM) and classifications of services (CoS) to apply for the 2015-2020 regulatory control period, whereas all submitted annual CA RIN reporting (excepting 2013-14) was presented using the CAM and CoS in effect at that time. Consequently, while the AER utilised category analysis data provided in the Reset RIN in place of CA RIN data for the 2013-14 regulatory year, care should be taken by the AER and other stakeholders when comparing or using any RIN time series data. We also request that the AER notes this comparability limitation in the Annual Benchmarking Report.

3.5 Operating environment factors (OEFs)

Energex and Ergon Energy understand that the Sapere Research Group and Merz Consulting (Sapere-Merz) assessment of OEFs is still preliminary and indicative and that a number of important OEFs are yet to be assessed by Sapere-Merz (owing to a lack of available data to quantify those OEFs at present).

Two important OEFs for both Energex and Ergon Energy are vegetation management and severe storms. However, these OEFs have at present been set to zero per cent due to insufficient available data to estimate an OEF adjustment. As these two OEFs are likely to be both positive and material for Energex and Ergon Energy, it is recommended that they be reported as “NA” in the Sapere-Merz assessment. We also request that the Sapere-Merz report and the AER’s final Annual Benchmarking Report be caveated further to reflect the preliminary and illustrative nature of Sapere-Merz’s assessment and the exclusion of the two key OEFs for Energex and Ergon Energy which, when quantified, will be much greater than zero per cent.

3.6 Translog stochastic frontier analysis (SFA)

While Energex and Ergon Energy welcome the addition of new models and techniques to this year’s Annual Benchmarking Report, we consider that Translog SFA should also be included. Frontier Economics, on behalf of Energex and Ergon Energy, has reviewed the Economic Insights Report and the AER’s economic benchmarking data files. Their conclusion was that the statistical monotonicity violations associated with Translog SFA over the period of 2006 to 2017 are both minor and statistically insignificant. We therefore request that the AER consider presenting the results from the Translog SFA in Figure 5.2.

3.7 Errors

A number of errors have been identified and are noted in Appendix A. These errors have impacted key variables in the AER’s benchmarking model and analysis

including: customer numbers, route line length, circuit length, customer density, demand density, SAIFI, SAIDI, maximum non-coincident demand at the transmission point, operating expenditure for network services, overheads and total zone substation transformer capacity. MTFPs and MPFPs may also be affected by these errors.

We would appreciate the AER's collaborative approach to correction of these errors, and recognise that this may change some of the observations presented in the draft Annual Benchmarking Report.

APPENDIX A

Data file	Sheet	Description	Comment
DNSP benchmarking partial performance indicators	Normalisers	The following variables have been incorrectly calculated using data from 2014-17 (instead of using 2013-17 for a five year average), i.e. there is a formula error only using four years not five years to calculate the five year average: • Customer numbers; • Route line length; • Overhead circuit length; • Underground circuit length; • Customer density; • Total circuit length; • Whole of network unplanned SAIFI excluding MEDs and excluded events; • Whole of network unplanned SAIDI excluding MEDs and excluded events; and • Maximum Non-coincident demand at the Transmission Point (MW).	All DNSPs' analysis impacted

Data file	Sheet	Description	Comment
DNSP benchmarking partial performance indicators	Expenditure summary 2.1	The following variables are shown as having no data: 2.1.1 • SCS – capitalised network overheads; and • SCS – capitalised corporate overheads; 2.1.2 • Vegetation management; • Maintenance; and • Emergency response. Energex and Ergon Energy have previously submitted data for this regulatory reporting year via the CA RIN.	All DNSPs' analysis impacted
DNSP benchmarking partial performance indicators	Maintenance (nominal)	Maintenance spend (nominal) is shown as having no data for 2012-13. Energex and Ergon Energy have previously submitted data for this regulatory reporting year via the CA RIN.	All DNSPs' analysis impacted

Data file	Sheet	Description	Comment
DNSP benchmarking partial performance indicators	Emergency response (nominal)	The following variables are shown as having no data: • Total emergency response expenditure (nominal) 2013; and • Total emergency expenditure excluding MEDs. Energex and Ergon Energy have previously submitted data for this regulatory reporting year via the CA RIN.	All DNSPs' analysis impacted
DNSP benchmarking partial performance indicators	Vegetation management (nominal)	Total Vegetation Management expenditure (nominal) 2013 is shown as having no data. Energex and Ergon Energy have previously submitted data for this regulatory reporting year via the CA RIN.	All DNSPs' analysis impacted
DNSP benchmarking partial performance indicators	Total OH (nominal)	Total overheads (totex and nominal) is shown as having no data for 2013. Energex and Ergon Energy have previously submitted data for this regulatory reporting year via the CA RIN.	All DNSPs' analysis impacted
DNSP benchmarking partial performance indicators	Network overheads (totex, nominal)	Network overheads (totex and nominal) is shown as having no data for 2013. Energex and Ergon Energy have previously submitted data for this regulatory reporting year via the CA RIN.	All DNSPs' analysis impacted

Data file	Sheet	Description	Comment
DNSP benchmarking partial performance indicators	Corporate OH (nominal)	Corporate overheads is shown as having no data for 2013. Energex and Ergon Energy have previously submitted data for this regulatory reporting year via the CA RIN.	All DNSPs' analysis impacted
DNSP benchmarking partial performance indicators	Zone substation	DPA604 Total zone substation transformer capacity is shown as 20,119.2 **not** the resubmitted amount by Energex of 20,298.6 for 2014. 2013-14 EB RIN Templates were resubmitted by Energex to the AER on 15 July 2016.	Energex impacted
DNSP consolidated benchmarking data – September 2018	Consolidated RIN data	Demand density for all years is shown as a different amount to what was reported.	Energex impacted
vc-out-med-BM-24-07-18.smcl		The SFA CD Efficiency scores for the period 2006-17 in vc-out-med-BM-24-07-18.smcl do not match the efficiency scores report in Figure 5.1 of the AER's Annual Benchmarking Report, 3.5 and Table 3.8 of the EI supporting report.	All DNSPs' analysis impacted