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Dear Mr Pattas

SUBMISSION ON THE BETTER REGULATION: DRAFT EXPENDITURE FORECAST ASSESSMENT GUIDELINES FOR ELECTRICITY DISTRIBUTION

Ergon Energy Corporation Limited, in its capacity as a Distribution Network Service Provider in Queensland, welcomes the opportunity to provide a submission to the Australian Energy Regulator on its *Better Regulation: Draft Expenditure Forecast Assessment Guidelines for Electricity Distribution*.

Should you require additional information or wish to discuss any aspect of this submission, please do not hesitate to contact me on (07) 4092 9813.

Yours sincerely

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Encl: Ergon Energy's submission.

Ergon Energy Corporation Limited

Submission on the *Better Regulation: Draft Expenditure Forecast Assessment Guideline for Electricity Distribution and Transmission*

Australian Energy Regulator

20 September 2013

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This submission, which is available for publication, is made by:

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1. GENERAL COMMENTS

Ergon Energy Corporation Limited (Ergon Energy) welcomes the opportunity to provide comment to the Australian Energy Regulator (AER) on its *Better Regulation: Draft Expenditure Forecast Assessment Guideline for Electricity Distribution and Transmission* (the Guideline). This submission, which is available for publication, is provided by Ergon Energy, in its capacity as a Distribution Network Service Provider (DNSP) in Queensland. Ergon Energy is available to discuss this submission or provide further detail regarding the issues raised, should the AER require.

Ergon Energy supports any consultative approach aimed at facilitating a better understanding of the AER's expenditure assessment methods. In particular, as Ergon Energy is required to submit its Regulatory Proposal in October 2014, a clear understanding of the process and basis for assessing expenditure forecasts would assist Ergon Energy with its preparation in this regard.

As a member of the Energy Networks Association (ENA), the peak national body for Australia's energy networks, Ergon Energy has contributed to the ENA's submission on the Draft Guideline and shares the concerns raised by the ENA in its submission, particularly in relation to:

- The apparent confusion of the role of the AER in relation to the assessment of Network Service Provider (NSP) forecasts, rather than determining how forecasts should be made;
- The lack of clarity regarding the specific process the AER will follow in assessing an NSP's forecast;
- The lack of clarity in relation to which assessment principles, techniques and information requirements will be used to determine NSP's expenditure that reflects the expenditure criteria, and acknowledges expenditure factors; and
- In addition to our general agreement with the concerns raised by the ENA, Ergon Energy also has a number of specific concerns which are addressed in more detail below.

2. GENERAL ISSUES

Context of changes with overall framework

The AER's Expenditure Forecast Assessment Guideline Issues Paper (Issues Paper) released for consultation in December 2012, highlighted the greater onus being placed on the AER by the National Electricity Rules (Rules) to ensure its decision making relating to efficient and prudent expenditure forecasting is in the long term interest of customers. During the Issues Paper process, it was generally acknowledged that any transition to a higher powered incentive regime for businesses to spend below their expenditure allowance would require a balanced and careful consideration of obligations by the AER when assessing a DNSP's expenditure forecast.

The Guideline

The effective application of the requirements of the National Electricity Law (NEL) and the Rules ought to be the focus of the AER's Guideline. In turn, the Guideline needs to be specific in referring to how the AER will demonstrate the satisfaction of these requirements. Ergon Energy does not believe that, as currently drafted, the Guideline is sufficiently clear in this regard. For instance, the Explanatory Statement released with the Guideline[1] does not clearly differentiate between the purpose of the document as a means to assess an NSP's forecasts or for the preparation of the AER's own forecasts. Ergon Energy is of the view that the application of the Guideline is to frame how the AER will assess an NSP's forecasts, not frame the preparation of its own substitute forecasts.

Further, the Australian Energy Market Commission's Final Determination on the Rule changes to Chapters 6 and 6A of the NER in 2012[2] provided that the AER's assessment "necessarily requires a consideration of the NSP's circumstances as detailed in its Regulatory Proposal". To ensure consistency with this, the Guideline ought to be drafted in such a way as to provide a blueprint for how the AER will apply techniques in assessing the forecasts of NSPs. Ergon Energy does not believe it is appropriate for the AER to prescribe the

[1] http://www.aer.gov.au/sites/default/files/AER%20Draft%20expenditure%20assessment%20guideline%20-%20distribution%20-%20August%202013_0.pdf ; http://www.aer.gov.au/sites/default/files/AER%20Explanatory%20statement%20-%20draft%20expenditure%20forecast%20assessment%20guideline%20-%20August%202013.pdf.

[2] http://www.aemc.gov.au/Media/docs/Final-Rule-Determination-4c10cf40-03a0-4359-8fe9-3e95a446579d-0.pdf, p 107.

forecasting methods to be used by NSPs; rather this is for NSPs to propose in their Regulatory Proposals and Expenditure Forecasting Methodologies.

This is consistent with the limitations in clause 6.4.5(a) of the Rules. Under this clause, the expenditure forecast assessment guidelines must specify:

- the AER's proposed approach to assessing operating expenditure (opex) and capital expenditure (capex) forecasts; and
- the information that the AER requires for the purpose of that assessment.

The AER is not empowered to use these guidelines to dictate to a DNSP the manner in which an opex or capex forecast must be produced. The Rules require the AER to assess, with an open mind, the opex and capex forecasts submitted by a DNSP against the criteria, and taking into account the factors, prescribed in the Rules. The AER cannot use these guidelines to close off an approach to the production of a forecast that is, under the Rules, open to a DNSP.

To this end, Ergon Energy expects that the Guideline will produce results in the context of the NSP's Regulatory Proposal, and with proper regard for the requirements of the NEL and Rules. Further, the Guideline should clearly explain how these techniques will be applied together. Ergon Energy does not believe the AER should be seeking to find the 'lowest cost outcome' by making selections that may create biased results from various assessment techniques. Rather, the AER should be seeking to determine what is representative of 'consensus', by applying multiple assessment techniques.

With regard to the use of information, Ergon Energy wishes to emphasise that the Regulatory Information Order (RIO) is the appropriate instrument to collect comparative information from NSPs and to proceed in a manner other than via the RIO process would not deliver the consistency desired. Ergon Energy is particularly concerned that the AER is attempting to rush through these new approaches which may lead to less than desirable outcomes.

Key principles and criteria

As a general statement, Ergon Energy believes the AER's proposed principles reflect the characteristics that ought to be included in assessment techniques needed to promote the Productivity Commission's principles.[3]

We reiterate that the AER's focus should be on satisfying the NEL and Rules requirements rather than treating its own principles as an end in themselves. Principles within (or outside) a guideline should not be seen as a substitute for NEL and Rules requirements. In any case, should the AER want to ensure that the principles are relevant, accessible and well-understood; Ergon Energy suggests they are moved from the Explanatory Statement into the Guideline.

Data collection requirements

In our response to the Issues Paper, Ergon Energy requested an explanation from the AER detailing how the benefits from the proposed information requirements were to outweigh the associated costs. Although the AER has addressed this issue to some extent, Ergon Energy remains unconvinced that the significant time and resources required to provide all of the required information, clearly translates into benefits to industry and customers.

Ergon Energy reiterates its previously notified position that the AER's interest should be in collecting information that is required for its final model specification, or to test the sensitivity of the data included in the model specifications; information requirements over and above this threshold represent an unnecessary burden on NSPs. Additionally, Ergon Energy notes a misalignment between the level of information being requested and the nature of assurance being sought from NSPs to support it.

It is worth noting there will be circumstances where a NSP simply does not have the information requested by the AER. In such situations, NSPs should not be disadvantaged because such information is unavailable (i.e.

[3] http://pc.gov.au/__data/assets/pdf_file/0016/123037/electricity-volume1.pdf, p 167.

where the AER decides to substitute another NSP's unit rates) or be unduly pressured to construct information that cannot be sensibly relied upon for the purpose of making a distribution determination.[4]

3 MATTERS SPECIFIC TO ERGON ENERGY IN PREPARATION FOR THE 2015-20 DETERMINATION

Ergon Energy is Australia's largest electricity distribution business. It covers an area of approximately 1.7 million sq. km which is more than 700 times the size of Australia's smallest electricity distribution business (ActewAGL), covering the ACT with roughly 2300 sq.km).[5] Customer density in Ergon Energy's distribution area is 4.3 customers per km of line, which is very small when compared, for instance with CitiPower, with an average of 47.4 customers per km of line.

The AER's last Distribution Determination for Ergon Energy included a decision on operating expenditure that rejected Ergon Energy's forecast of operating expenditure and substituted an amount the AER was satisfied reasonably reflected the efficient costs of a prudent DNSP, taking into account Ergon Energy's circumstances. The AER also substituted its own cost inputs and demand forecasts. In making its decision on opex, the AER stated:

> "*As the AER is not satisfied that the opex allowance reasonably reflects the opex criteria, …the AER must not accept the opex proposed by Ergon Energy. Under clause 6.12.1(3)(ii) of the NER, the AER is therefore required to provide an estimate … which it is satisfied reasonably reflects the opex criteria, taking into account the opex factors. … the AER's estimate of controllable opex for Ergon Energy is $1801 million*".[6]

In making its substitution of opex, the AER explained that it had regard to "…*benchmark expenditure (opex and capex) that would be incurred by an efficient DNSP over the regulatory control period in coming to its conclusions on the forecast opex*"[7].

At the time, Ergon Energy assumed that the AER's substituted allowance of efficient opex had sufficient regard to benchmarking. In fact, issues of benchmarking were a focus in stakeholder discussions for Ergon Energy. Specifically, the AER's decision included the following statement:

> "*In most benchmarking models, where a firm appears less efficient than its peers, it will be unclear whether this difference is due to real inefficiency, data noise or a failure of the model to account for some firm-specific factor. In order to minimise this problem high quality data will be needed. The AER considers that it does not currently have access to sufficient data to enable it to rely on benchmarking outcomes to set or amend opex and capex allowances directly.*"[8]

The AER also made the following explicit comments on the role of benchmarking in its decision making process:

- "*In making its decision under the NER, the AER must make judgement according to all the operating expenditure factors, and not consider each of the factors (such as benchmarking) in isolation. Individual factors do not stand alone but must be considered together*".[9]
- "*More weighting will likely increase to top down benchmarking, but only when more standardised and appropriate data is available and benchmarking models give more consistent results. The AER cannot establish revenue allowances based primarily on the outcome of comparative benchmarking against other firms*".[10]

[4] The AER's suggestion on page 56 of its Explanatory Statement Draft Expenditure Forecast Assessment Guidelines for electricity transmission and distribution that "(where possible) use reliable data" suggests such a situation may arise.
[5] ActewAGL Distribution, Cost Allocation Methodology, November 2012.
[6] AER Final Distribution Determination 2010-2015, p 209.
[7] Ibid, p 427
[8] Ibid p 424.
[9] Ibid.
[10] Ibid.

- "*In addition to the overarching regulatory framework and requirements of the NER under which the AER operates, there are inherent limitations in benchmarking techniques which must be recognised*".[11]

Ergon Energy can only respond to incentives based on the framework before it

In the Explanatory Statement to the Guideline, the AER notes that 'it is up to the NSP in question to determine how best to manage its costs within the efficient revenue allowances we (the AER) set'.[12]

The incentive arrangements provided for Ergon Energy's 2010-15 regulatory control period are consistent with this statement. Irrespective of the business' views toward the AER's Final Determination, the incentive mechanisms employed require it to manage its affairs in accordance with that forecast, in the knowledge that it will not fully recover costs above the allowance set, and that it will receive some financial reward for expenditure below the forecast.

In other words the allowance set by the Regulator is intrinsically related to the incentive arrangements that apply and carry forward into the next regulatory control period. This includes the information provided at the time of the Final Determination and the conclusions made by the AER at the time as to the appropriate weighting of benchmarking in its overall consideration. It is this framework that Ergon Energy has responded to. In short, Ergon Energy has "manage[d] its costs within the efficient revenue allowances [the AER] has set".

Ergon Energy's response to the incentive framework

Ergon Energy's out-turn operating expenditure in the first two years of the current regulatory control period was above the amount the AER was satisfied represented an efficient forecast of expenditure. This was driven in part by responding to natural disasters such as Cyclone Yasi. Nevertheless the trending increase in expenditure above the AER's revenue allowance, combined with increasing customer concerns over price increases forced Ergon Energy to respond with an aggressive approach to achieving expenditure below the allowance.

Specifically, in 2012 Ergon Energy developed a number of measures aimed at creating a more agile organisation, to meet the needs of a changing operating environment and continue providing value for customers.

A number of initiatives across the business have focused on:

- overhead cost reduction (including overtime);
- workforce optimisation;
- strategic sourcing;
- contract management;
- administration/GM support; and
- reporting.

As a consequence, Ergon Energy has achieved substantial improvement in its forecasts. This can be demonstrated in particular from the 2012-13 year, where despite increases in some costs relating to floods and ex-tropical cyclone Oswald, Ergon Energy successfully delivered out-turn operating expenditure below the allowance set by the Regulator.

Concerns with presumptions of inefficiency

Ergon Energy's expectations are that the AER would assess forecasts for operating and capital expenditure in accordance with the Rules. That is, it would consider a DNSP's forecast in the context of the expenditure objectives and make a decision on whether it is satisfied the forecast reasonably reflects the expenditure criteria, having regard to the applicable factors. Ergon Energy is concerned that the AER may have moved

[11] Ibid.
[12] Explanatory Statement Draft Expenditure Forecast Assessment Guidelines for electricity transmission and distribution, p 23.

away from the requirements of the Rules and formed its own view on Ergon Energy's expenditure. Based on attendance at forums and discussion with AER staff, it appears that the AER:

- has already made a conclusion that some businesses in NSW and QLD are inefficient;
- are looking to use benchmarking to confirm this conclusion;
- will seek to use this benchmarking, not only to inform the forecast of expenditure, but to also determine:
  - that the current expenditure levels are inefficient; and
  - that the DNSP has not responded to the incentive framework.
- Will use this benchmark to adjust down current expenditure incurred by the business; and
- Expect that DNSPs should be able to reduce expenditure to the benchmark, even though for Ergon Energy, we will not know what this reduced benchmark is until after we have started incurring the expenditure.

This has implications for Ergon Energy. Having been informed by the AER what an efficient operating expenditure forecast is, Ergon Energy has managed within this forecast and responded to the incentive framework. It has done so through an efficiency and effectiveness program focused on improving value for customers. This has partially been achieved through the reduction of around 500 staff over a period of 12 months.

In collaboration with the Queensland Government, Ergon Energy has sought to improve the sharing of the benefits inherent in the incentive regime by passing through immediate cost savings in the form of lower prices than would otherwise be charged.[13] This process of efficiency improvement will continue within Ergon Energy and will likely reveal additional savings through aggressive initiatives all designed to ease the price burden on customers in the next regulatory control period.

If Ergon Energy is correct about the AER's proposed approach this creates a risk that what was considered an efficient forecast by the AER will be revised after the fact and DNSPs will be penalised for any expenditure above this revised efficient cost even where DNSPs have responded to the incentives in place during the regulatory control period.

Broader consideration of Rules criteria and factors

Ergon Energy is concerned that the AER's proposed approach is inconsistent with the framework under which we operate. Even in circumstances where these benchmarking approaches were able to provide meaningful conclusions, Ergon Energy does not agree with the course of action proposed by the AER through the Guideline, particularly as it applies to Ergon Energy in its upcoming Regulatory Determination process. This is largely because:

- The Guideline does not consider the role of the AER in determining expenditure under the Rules. In particular, there appears to be no clear consideration of how the AER intends to carefully weigh all factors in satisfying itself that it should reject a forecast on the basis that it doesn't reasonably reflect the criteria;
- There appears to be no consideration of the weight that should be given to the factors contained in clauses 6.5.6 (e)(4),(5),(5A) and (8)[14] of the Rules against the reliability or otherwise of the benchmarking approaches, or how the AER proposes to take each of these factors into account. It is not enough for the AER to simply state that it has considered each of the relevant factors. It is must be able to explain how the factor has weighed upon its decision. For example, clause 6.5.6(e)(5) suggests that the AER must take into account the fact that a DNSP's base year opex might have been less than the AER's efficient forecast. The AER cannot simply put that fact to one side. It must take it into account. If the AER believes that the results of its benchmarking deserve greater weight, it must be able to explain why that is so, having regard to the inherent limitations of benchmarking and the incentives acting on the DNSP in the base year;
- DNSPs should be able to respond to the incentives consistent with the decisions the AER made at the time of its last determination, including any conclusions it made regarding the appropriate use of

[13] Refer page 12 of Ergon Energy's Pricing Proposal for more information: http://www.aer.gov.au/sites/default/files/Ergon%20Energy%20-%202013%20Annual%20pricing%20proposal%20%28updated%29%20-%2028%20May%202013.pdf.
[14] And the equivalent provisions in respect of 6.5.7 of the National Electricity Rules.

benchmarking (especially to the extent that these views have substantially changed between periods); and

- Ergon Energy is concerned there may be a lack of due process for Ergon Energy in respect of the AER's proposed timetable for producing benchmarking results and making determinations on the efficiency of Ergon Energy's opex. For example:

    - The AER is likely to make conclusions on the efficiency of Ergon Energy's historic spend one month before Ergon Energy submits its Regulatory Proposal;
    - Because there has not been reasonable time to understand, and therefore explain any differences, the AER may presume these differences are due to inefficiency, leading to an incorrect first pass decision; and
    - Because the AER makes a Final Determination four months into Ergon Energy's regulatory control period, there will be a period of time for which Ergon Energy may spend, without an understanding of the AER's final substituted amount; it may then be penalised for expenditure above a forecast, which is determined after the expenditure has occurred.

4 BENCHMARKING APPROACH

Ergon Energy's own benchmarking studies

Ergon Energy is proud of its record in pioneering and participating in industry benchmarking studies. Ergon Energy participated in major industry benchmarking projects in 2008 and 2012. Using some of the outcomes of these projects we have commissioned many other smaller studies specifically focused on elements of our program. Ergon Energy also has ongoing information sharing relationships with Essential Energy and Energex, formalised through the Joint Workings Program. This history of benchmarking activity has provided Ergon Energy with a thorough understanding of our performance in comparison to other Australian electricity distributors, but more importantly, a strong understanding of the limitations of benchmarking when applied in Australia and to an "outlier" organisation such as Ergon Energy.

Issues with benchmarking

The errors in the data and errors in economic benchmarking models through heterogeneous conditions far outweigh the granularity of the adjustments made in the name of efficiency improvement. Benchmarking is a useful exercise to provide visibility of differences across a variety of categories. It is a valuable first step to initiate investigations into differences between how businesses operate in similar or different environments and what lessons can be adopted and applied to your own circumstances. However, the opportunity to harness benchmarking as a cost adjustment technique, is severely limited in Australia with its vast spectrum of environmental conditions, legacy accounting and reporting structures, and small number of businesses.

Metrics cannot determine whether differences are caused by inefficiency

The regulatory benchmarking techniques proposed by the AER will attempt to estimate an average or frontier cost that an efficient NSP would incur given its different network characteristics. The AER will then use this difference (the residual) between actual and estimated costs to infer relative efficiency between NSPs.

This approach to measuring relative efficiency relies on three assumptions:

1. Australian NSPs are comparable. That is, it is possible to compare Australian networks on a like for like basis and there is an industry cost function that represents all NSPs in the National Electricity Market (NEM);
2. To the extent that the NSPs are comparable, there is a finite level of mathematical adjustments that can be made to benchmark them on a comparable basis; and
3. The difference between the estimated costs and actual NSP costs are due to inefficiency, not other unexplained variables, different cost structures, data error or random error.

Whether these assumptions are valid remain unclear. However, Ergon Energy believes no strong evidence has emerged in support of these techniques for use in electricity distribution regulation in over two decades of experimentation.

> *"in practice, benchmarking has proven either troublesome or irrelevant to the regulatory process, but proponents continue to search for "better" models that will be more useful".*[15]

In addition to the difficulties in identifying a representative cost structure among a diverse group of networks there is also the difficulty of separating inefficiency from other unexplained factors that constitute the residual. This problem becomes even more difficult to eradicate using a limited data set.

Ergon Energy believes that to infer that a NSP is inefficient purely because it is not on an efficient frontier is incorrect. The AER should be careful not to confuse the attainment of efficiency as a theoretical construct, and how efficiency should be applied to businesses in the real world.

Houston et al, in an economic analysis of the Rules[16] provide important context in this regard:

1. In practice, just as there are no perfectly competitive markets, no firm can realistically be expected to achieve this level of efficiency in every facet of its operations, in perpetuity;
2. In the real world there are constraints on firms constantly altering their mix of goods and services and production processes, to take account of new technology and changes in consumer tastes;
3. In practical terms, efficiency is something that firms may be constantly working towards, without ever actually fully achieving it;
4. The attainment of perfect frontier efficiency is not directly observable;
5. Given that a firm's efficiency in relation to the efficiency frontier cannot be directly observed in real-world circumstances of less than perfect competition, the assessment of efficiency typically becomes a relative concept;
6. as soon as the assumption of homogeneity is relaxed, it becomes difficult to measure the efficiency of one firm against another, as the outputs they are producing are different;
7. Once viewed as a relative concept, it is also clear that not all firms can be operating at the efficiency frontier. By definition, some firms will be more efficient than others, so that there will always be a distribution of firms around an average level of efficiency. The average firm will only be averagely efficient, and so will be inside the efficiency frontier rather than on the frontier; and
8. Perfectly competitive markets and perfectly efficient firms amount to an unattainable threshold, and so represent an unrealistic benchmark against which to assess regulated firms' expenditure.

Houston concludes this analysis with the following:

> *In summary, in practical terms it is difficult to assess a firm's efficiency at a given point in time. This is because the absolute efficiency frontier is not directly observable and comparisons with other firms may have limited relevance. Even if the efficiency frontier was directly observable, it is constantly shifting and therefore constitutes a moving target. Given these considerations, the focus of regulation is typically on providing incentives for efficiency that encourage firms to 'head in the right direction'.* [17]

Ergon Energy's own benchmarking analysis

Ergon Energy has undertaken similar analysis to those techniques included in the Guideline in an attempt to understand its own performance and relative efficiency. Using the information available to it, for many of the category type benchmarks, Ergon Energy appears to perform well, when compared against peers (i.e. asset replacement and unit replacement costs for many asset types). For several other benchmarks, Ergon Energy ranks either well or poorly depending on the context. For example:

- using network length as an explanatory variable, Ergon Energy's costs appear low; and
- using customer numbers, they appear high.

Ergon Energy ranks quite low in comparison to other business when using most of the economic and econometric techniques. Our examination of this analysis suggests that model specification biases outcomes

[15] Shuttleworth, Benchmarking of electricity networks: Practical problems with its use for regulation, p 310.
[16] Refer http://www.nera.com/extImage/PUB_National_Electricity_Rules_May2008.pdf.
[17] Ibid, p 8.

towards the more numerous urban businesses and it is difficult to separate out these model specification issues to further investigate other causes of differences. The frontiers represented in these models are not an efficient frontier of Ergon Energy.

Can unjustifiable differences can be explained by inefficiency

The AER's intended use of econometric modelling poses significant consequences for businesses whose cost structures and cost drivers are not properly accounted for by the selected model. The technique relies on the application of an industry cost model that includes a residual. The danger with using a residual from an econometric model (the difference between modelled and actual cost) to interpret base year efficiency is that the components of this residual are likely to include a combination of statistical noise, data errors and unexplained business conditions. Rather than proof of inefficiency, the residual should be interpreted as a variation between the predicted opex cost and actual cost that remains unexplained by the model.

It is for this reason that Ergon Energy has concerns with the AER's approach. The residual is the extent of our ignorance of the fit of the cost model. As such, it should not be used to set an alternative forecast, as it raises more questions than it answers about the relationship between network characteristics and costs. Ergon Energy believes, especially in the early rounds of analysis, that it is inappropriate to place the onus on DNSPs to justify the residual, and in the absence of the justification declare that the residual represents inefficiency. This is because there are likely to be different residuals depending on the selection techniques and the model itself. The process of inquiry requires an understanding of all the information provided by the model, including information that only the AER has access to. Without understanding the difference, it is too simple to assume inefficiency.

Use of models

Ergon Energy notes the AER's intention to use Tornqvist Multilateral Total Factor Productivity (MTFP) to benchmark total expenditure and to use the results to:

- measure the change in and overall efficiency of NSPs and the the historic growth of inputs and outputs: and
- to forecast future aggregate expenditure.

In a review of the benchmarking techniques proposed by the AER in the Draft Guideline, Huegin Consulting Group (Huegin) identified two problems with using MTFP to infer efficiency, as follows:

1. that MTFP is unable to account for the influence of different business conditions on efficiency results; and
2. it is also unable to account for the influence of scale on efficiency results.

As noted by Huegin, these were highlighted in a 2003 report conducted by Cambridge Economics Policy Associates (CEPA) for the Office of Gas and Electricity Markets (Ofgem).

> *"It provides only limited ability to control for differences in the business environments of firms in the sample group" and "the approach is unable to distinguish scale effects from efficiency differences".* [18]

Given operating environments within the NEM are far more varied than those within the United Kingdom, Huegin considers that it is unlikely that the model outlined by the AER will be able to overcome these shortcomings to infer efficiency between networks.

Ergon Energy notes that the outputs in the AER's preferred model are number of customers, system capacity and reliability. As identified by Huegin, if differences in MTFP results are used to infer efficiency between NSPs then an assumption that needs to be made is that these different MTFP scores are due solely to business conditions *that management within NSPs are able to control.* Further, given customer connections and system capacity are two outputs used in the preferred MTFP model one way a NSP can appear more efficient is by increasing the size of its network or number of customers relative to its index of inputs. For Ergon Energy cost drivers associated with increasing network size and its customer base include low

[18] CEPA, Review of benchmarking techniques 2003, p 28.

customer density (on average Ergon Energy has to build longer line lengths per customer) and customer demographics (Ergon Energy has the second highest average consumption levels per customer).

Huegin has noted that, by contrast, if Ausgrid's outputs in terms of customer connections and system capacity were to increase its cost drivers are more likely to be network design (much of its network is underground and high voltage), high reliability standards and asset age. Ergon Energy agrees with Huegin that these differences are not confined to Ergon Energy and Ausgrid and that there are different combinations of cost drivers between all NSPs in the NEM that make a simple MTFP comparison using three outputs and four inputs both misleading and unreliable.

In response to the difficulties of using Tornqvist MTFP to benchmark NSP expenditure the AER have indicated that they will run a second stage regression on MTFP results to remove scale effects and exogenous business characteristics. However, Ergon Energy agrees with Huegin that given a sample size of 13 networks it is unlikely that the dataset will be large enough to remove differences in MTFP results due to uncontrollable business conditions, scale differences and data errors and to infer relative level of efficiency between NSPs.

The use of a "holistic approach"

Ergon Energy is concerned that the multifaceted approach proposed by the AER to benchmarking, combined with the unsuitability of many of those approaches to Ergon Energy's business conditions, will lead to an unachievable outcome for Ergon Energy merely because it is least suited to the weight of various approaches undertaken. Ergon Energy does not believe that using multiple techniques is complementary or increases the robustness of the overall approach, nor does it believe that two or more of the intended techniques resulting in a similar indication is sufficient means to substitute an NSP's more detailed forecast.

Disaggregated data

Ergon Energy shares the concerns of many of the other network businesses about the level of information required in the recently released proposed RIN templates and the intended purpose of that data. Notwithstanding the inherent level of inaccuracy of much of the data at this level of disaggregation, the inference appears to be that the AER can, through disaggregating costs to lower levels, find the ratio or measure upon which an unadulterated comparison of efficiency can be made. Ergon Energy has learnt from its own experience that when sifting through the layers of category benchmarks, there is not one level or numerator/denominator combination that inefficiency residual neatly fits within. There is always another series of questions that can be asked with each revealed level of detail about the differences between businesses that can explain variation across cost ratios.

Risk to outcomes for customers

The risk to businesses in the proposed benchmarking approach is that through insufficient model specification or application, adjustments are made to a forecast that ignore the level of control that businesses have over such costs. Given the immediate nature of the adjustment and the associated penalties of not meeting the adjusted forecast, businesses will be forced to decide between incurring the penalty or potentially inducing risks into the business through pure cost cutting, rather than considered efficiency gains.

Data issues

Ergon Energy supports benchmarking for the purposes of informing differences across businesses and focusing cost improvement initiatives, but the use of benchmarking as a substitute for detailed, analytical forecasting places undue reliance on techniques that invariably change with each determination as new issues are uncovered that render them unsuitable in application.

The history of benchmarking in electricity network regulation across the world has shown that it takes years, if not decades, before the information that feeds economic benchmarking models becomes consistent and stable. That history has also demonstrated that the framework and approach changes before that point in time

is ever reached. Ergon Energy does not support the use of benchmarking alone as basis for a presumptive finding of inefficiency or to determine a substituted forecast. There is nothing to suggest that greater weight should be given to this factor in preference to any other expenditure factor. As we have discussed, if anything there is strong evidence to support a cautious approach in giving weight to the results of a benchmarking exercise.

In any case, we believe the guidelines should properly place the use of benchmarking in the context of the AER's task under the Rules as outlined below.

AER's proposed approach to the assessment of forecast expenditure

Ergon Energy believes it is apparent, from the material set out above, that there are genuine limitations on the extent to which benchmarking tools can be used to produce reliable forecasts of efficient expenditure. This does not mean that benchmarking can, or should, be cast aside as an assessment tool. The Rules specifically require the AER to take benchmarking into account in assessment expenditure forecasts.[19] However, the Rules also recognise the inherent limitations of benchmarking by stating, with equal clarity, that this is only *one* factor that is to be taken into consideration in assessing expenditure forecasts. The AER, if it is to properly discharge its duties under the Rules, must take into account *each* of the opex and capex factors listed in clause 6.5.6 and 6.5.7.

Ergon Energy's chief concern with the AER's proposed approach to assessing forecast opex is that it elevates benchmarking above all other factors listed in clause 6.5.6(e)(4), resulting in presumptive (and potentially conclusive) findings on the efficiency of base year expenditure before any of the other factors are ever incorporated into the AER's assessment.

While the AER states, in its draft guideline, that it "*will use a combination of techniques to assess whether base year opex reasonably reflects the opex criteria*"[20] the more detailed discussion set out in the explanatory statement makes it clear that benchmarking will be the principal, if not the sole, focus of the AER's 'first pass' assessment. For example:

- at page 3 of the Explanatory Statement, the AER states:

  > *This first pass assessment will typically involve high level expenditure assessment (using economic benchmarking and category analysis) and consideration of the NSP's performance in the most recent annual benchmarking report.*

- at page 43 of the Explanatory Statement, the AER states:

  > *When we assess capex and opex forecasts, we may use a number of assessment techniques, often in combination. The extent to which we use each technique will vary depending on the expenditure proposal we are assessing, but in general, we will follow an assessment filtering process. That is, we will apply high level techniques in the first instance and apply more detailed techniques as required. For example,* ***for the first pass assessment, we will likely use high level economic and category level benchmarking to determine relative efficiency and target areas for further review****. We will, however, also use benchmarking techniques beyond the first pass assessment.*

This first pass is part of what the AER describes as an 'assessment filtering process'. The problem with this process, as outlined by the AER, is that involves findings being made on key aspects of the opex forecast, without consideration of each of the mandatory opex factors.

Where, for example, a benchmarking exercise suggests that base year opex was efficient, it appears that no further consideration will be given as to whether that is in fact the case. The finding of efficiency is based solely on the benchmarking exercise. Where a benchmarking exercise suggests that base year opex was inefficient, other factors will be taken into consideration, but it appears that this is done not for the purpose of testing the efficiency of the base year opex, but rather for the purpose of substituting an alternative figure.

Benchmarking is an important analytical tool which, under the Rules, must be considered by the AER in assessing an opex forecast, but it is not the only factor. The Rules also requires the AER to take into account, in the same way, actual and expected expenditure in the previous period. In contrast, under the AER's

[19] clause 6.5.6(e)(4), 6.5.7(e)(4).
[20] Draft Expenditure Forecast Assessment Guidelines for electricity transmission and distribution, paragraph 5.1

proposed approach, actual opex is taken into account in the first pass assessment only as a point of comparison with the AER's benchmark, and the fact that base year opex may have been less than the forecast appears to receive no weight at all.

Base year expenditure is not the only input into a DNSP's opex forecasts, but under a 'base-step-trend' approach it is a critical one. Any adjustment to the base year opex will have material implications for the forecast opex ultimately approved by the AER. It is appropriate for the AER, in undertaking its first pass assessment, to use benchmarks *as one tool* for testing the efficiency of base year opex. However, it is not appropriate for the AER to make findings relating to the efficiency of base year opex without considering each of the applicable factors under clause 6.5.6(e)(4) and the merits of the DNSP's submissions.

To this end, Ergon Energy believes that the AER needs to clarify, both in its guidelines and in its explanatory statement, that it will, in its first pass assessment, consider each of the applicable opex criteria, and will be open to consideration of other factors which may support the conclusion that the base year opex is an appropriate starting point for the determination of the DNSP's forecast opex if a base-step-trend approach is to be used by the DNSP.