

21 December 2018



Mr Sebastian Roberts
General Manager, Transmission and Gas
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

AERinquiry@aer.gov.au

Dear Mr Roberts

Forecasting Productivity Growth for Electricity Distributors – Draft Decision Paper

Ergon Energy Corporation Limited (Ergon Energy) and Energex Limited (Energex) welcome the opportunity to provide comment to the Australian Energy Regulator (AER) on its Forecasting Productivity Growth for Electricity Distributors Draft Decision Paper (Draft Decision Paper).

Ergon Energy and Energex largely support the AER's proposal for an operating expenditure productivity growth forecast of 1.0 per cent, derived using a range of econometric and publicly available indices. We also acknowledge the application of this productivity target to both distribution businesses as we progress through our regulatory proposals for the 2020 to 2025 regulatory period, noting the implications of this target are yet to be fully understood or consulted upon.

However, we have a number of concerns with issues raised in the Draft Decision Paper. These are outlined in the attached submission. In particular, we are concerned with the flexibility of the methodology as proposed, specifically in relation to the ability of the AER to influence an outcome by varying the time period and/or sample set used in calculating the productivity target. Ergon Energy and Energex therefore recommend that the AER adopt a conservative approach in setting the target, using a longer-term time period to smooth deviations in industry accepted input variables.

Should you require additional information or wish to discuss any aspect of Ergon Energy's and Energex's submission, please do not hesitate to contact me on (07) 3851 6787 or Andrea Wold on (07) 3664 4970.

Yours sincerely

A handwritten signature in cursive script, appearing to read 'Trudy Fraser'.

Trudy Fraser
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Encl: Ergon Energy and Energex submission on the Draft Decision Paper

Forecasting Productivity Growth for Electricity Distributors

Joint submission to the
Australian Energy Regulator

21 December 2018



Part of the Energy Queensland Group

Forecasting Productivity Growth for Electricity Distributors



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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1 INTRODUCTION

Ergon Energy Corporation Limited (Ergon Energy) and Energex Limited (Energex) welcome the opportunity to provide comment to the Australian Energy Regulator (AER) on its Forecasting Productivity Growth for Electricity Distributors Draft Decision Paper (the Draft Decision Paper).

This submission, which is available for publication, is provided by Ergon Energy and Energex as distribution network service providers (DNSPs) operating in Queensland.

Ergon Energy and Energex are committed to providing:

- safe, reliable and affordable electricity supply
- a great customer service experience
- customers greater control over their energy consumption
- efficient and sustainable energy solutions
- access to the next wave of energy linked innovative technologies and renewables.

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2 KEY MESSAGES

2.1 Catch-up and frontier shift

Ergon Energy and Energex note the intention behind the AER's base-step-trend approach is to make separate assessments of, and set separate targets for, the scope for catch-up efficiency gains through the base-year assessment, and the scope for productivity improvements in the future owing to technological improvements over time.

As the AER has historically determined large operating expenditure (opex) reductions through the base-year assessment from its benchmarking analysis, it is important that the AER avoid double-counting the scope for catch-up through a large target for productivity savings in the future. Ergon Energy and Energex are of the view that the AER must consider the overall package of opex reductions on balance.

In particular, we note that the positive trend in the AER's estimated Multilateral Partial Factor Productivity (MPFP) since 2012 reflects a combination of both catch-up and productivity growth. Ergon Energy and Energex suggest the AER should distinguish clearly between shifts in the frontier and catch-up.

Ergon Energy and Energex also note that the draft decision paper assumes that a single productivity factor will apply across the efficient frontier which is not the case. Some efficient businesses will find it harder to realise productivity gains than others due to different mixes of labour and capital inputs, or different environmental factors. We therefore question whether different productivity forecasts should be determined for different businesses.

2.2 Productivity target

International research suggests that, given the challenges of predicting the scope for future productivity gains with precision, regulators have tended to adopt a relatively conservative approach when setting productivity targets, drawing only on evidence they believe provides an appropriate and robust benchmark for the entities they are regulating. Regulators that have set positive productivity targets (including regulators in Great Britain and Germany) have typically relied on bespoke studies based on comparisons with a number of other sectors within the economy.

In jurisdictions where productivity targets have been positive, they have generally been within the range of 0 - 1.5 per cent. In Great Britain, the regulators for the electricity, gas

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and water sectors have generally set a target of 1 per cent. We note that the AER's assessment of 1 per cent future productivity growth is towards the higher end of productivity targets set by regulators elsewhere.

2.3 Risk of overcapitalisation

In view of the trade-offs between opex and capital expenditure (capex), overseas regulators of utility sectors (for example, electricity, gas, water and transport) have generally set productivity targets based on an analysis of total factor productivity rather than opex partial factor productivity (PFP). By focusing solely on opex PFP, the risk exists that the AER might create perverse incentives for businesses to overcapitalise.

2.4 Sample period for setting productivity target

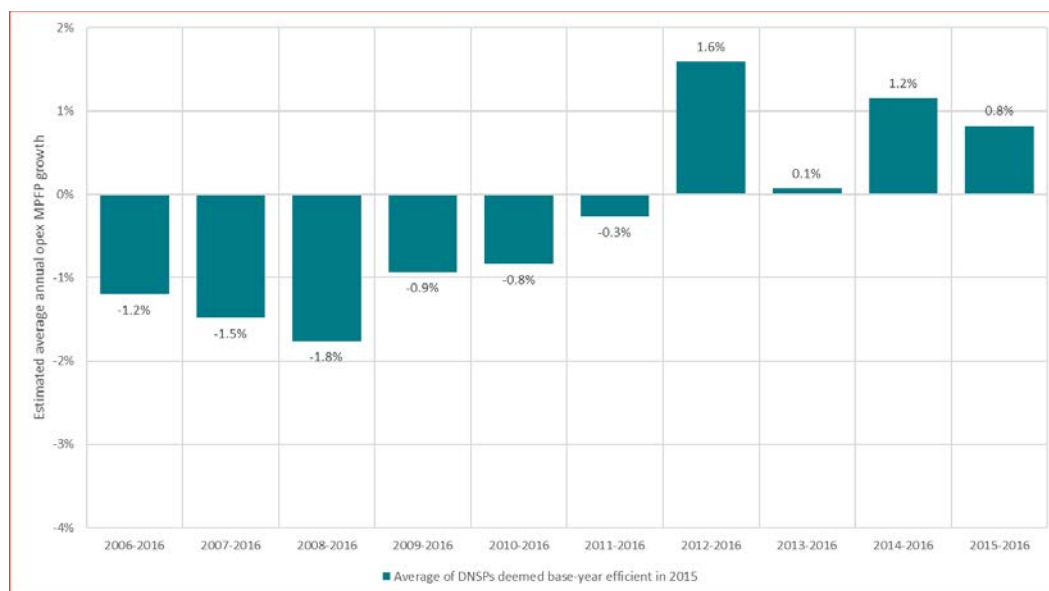
The AER's opex MPFP index shows that while industry-wide productivity growth has been positive in the last two years, it has generally been negative since 2006. Relying on short-term evidence to justify a positive productivity growth target may not be appropriate as the primary factors driving recent increases in industry productivity were reductions in opex achieved via business restructuring. These large and one-off restructuring gains cannot be sustained in the longer term.

Ergon Energy and Energex note that while the AER has highlighted the growth in productivity over the period 2012-2016, there is considerable instability in the trend productivity depending on the sample period used. For example, the choice of the initial year used for the averaging period to derive the average growth rate has a large impact on the AER's results.

This instability in the estimates of productivity growth is illustrated in **Figure 1** below, which uses the AER's data from its draft productivity report for opex MPFP covering the period 2006 – 2016.

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Figure 1: Average rate of productivity estimated by applying the AER methodology on different sample periods



Source: Frontier Analysis of data underlying the AER's 2017 final annual benchmarking report.

Figure 1 shows that in using the AER's preferred starting point of 2012 as the averaging period for calculating productivity growth, the estimated average productivity growth rate is 1.6 per cent per annum. This estimate is based on the businesses that were deemed by the AER to be base-year efficient in the last reset. However, if the initial year for the averaging period is anywhere between 2006 and 2011, then the estimated productivity growth rate is negative. If the starting year for the averaging period is greater than or equal to 2013, the estimated productivity growth rate is also considerably lower than the 2012 – 2016 average of 1.6 per cent.

Owing to the significant instability in the short-term trends above, we suggest that the assessment of productivity be based on a longer sample period.

2.5 Choice of comparator sectors

Ergon Energy and Energex note that one of the AER's approaches to estimating productivity growth relies on evidence from the Australian gas sector. As discussed above, utility regulators in Europe (including regulators in Great Britain and Germany) draw on comparisons with a number of sectors within the economy to determine a productivity target for their regulated businesses, not just a single sector. While it may initially appear that the gas sector may be a good comparator for electricity distribution due to both being energy sectors, many of the technical skills required to maintain and run an electricity distribution network are quite different to those required for a gas network.

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We therefore recommend that the AER consider further whether the gas sector is the most relevant comparator sector for electricity distribution businesses, and whether it should also consider evidence from other comparator sectors, such as the water and transport sectors.

2.6 International comparisons - New Zealand and Ontario

Ergon Energy and Energex note that while the AER has considered the electricity distribution businesses in New Zealand and Ontario as appropriate comparators for its econometric benchmarking models for the base-year assessment, it is unclear why these businesses have not been considered as comparators for the AER's productivity analysis. We note that the trend in productivity for the New Zealand and Ontarian businesses from 2006 onwards is negative.

2.7 Applicability of inputs to all businesses

As the AER is seeking to apply a single industry-wide target for productivity, there is a need to ensure that the sources of productivity savings identified from its analysis are achievable across the industry. For example, the AER has identified an increase in the undergrounding of assets to be a source of productivity savings in the future. However, it is not clear whether all DNSPs have equal opportunities for undergrounding meaning these potential productivity gains may not be equally accessible to all DNSPs.

In particular, the AER's assessment of undergrounding based productivity does not appear to recognise:

- the ability or prudence for undergrounding is not the same for all networks, that is, undergrounding may cost more in capex than it would save in opex productivity improvements
- there may be a difference between the productivity available for frontier businesses and that available for all businesses
- it is unrealistic to assume that the rate of change of undergrounding will be constant over time.

There are also reasons such as increasing regulation and changes to industry dynamics such as reduced demand, which may support an argument for negative productivity. Consequently there may be a need for the AER to consider inputs such as the changing regulatory environment, in addition to those proposed in its 'holistic approach' to determining the productivity target.

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2.8 Potential for technical estimation problems

Ergon Energy and Energex note there may be a number of technical issues with the AER's econometric models used to estimate productivity growth. Two of these are as follows:

- As the coefficient on undergrounding in the AER's econometric models is estimated using the full international sample of data, including DNSPs in New Zealand and Ontario, it is possible that it may not accurately represent the scope for productivity savings from undergrounding for the Australian DNSPs with precision.
- The AER's opex MPFP analysis is likely to be highly sensitive to the weighting of the output variables included in analysis (such as customer connections, energy delivered, maximum demand, circuit length, and reliability). While customer connections, circuit length and reliability are likely to increase over time, maximum demand and energy delivered are likely to show little growth or even decline over time, owing to energy efficiency savings, increases in 'behind the meter' distributed generation, and demand-management initiatives. Consequently the relative weights given to each of these input variables based on historical data is unlikely to be reflective of the importance they will have for future productivity gains. More generally, it would be desirable for the AER's output weights used to estimate productivity growth to reflect the outputs of the businesses from a forward-looking rather than a backward-looking perspective.