Part of the Energy Queensland Group

19 June 2019

Mr Chris Pattas
General Manager, Distribution
Australian Energy Regulator
GPO Box 520
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Email: AERInquiry@aer.gov.au

Dear Mr Pattas

ICT Expenditure Assessment Consultation Paper

Energex Limited (Energex) and Ergon Energy Corporation Limited (Ergon Energy) welcome the opportunity to comment on the Australian Energy Regulator's (AER's) Consultation Paper on Information and Communications Technology (ICT) Expenditure Assessment (consultation paper).

Energex and Ergon Energy generally support the AER's efforts to continue to review and refine its ICT expenditure assessment tool to ensure that it remains fit for purpose. Given the increasingly significant role ICT has in delivering energy services, Energex and Ergon Energy consider that it is timely for the AER to revisit its ICT assessment approach to ensure that distribution network service providers' ICT investments are in the long-term interests of customers.

However, Energex and Ergon Energy have some concerns with the AER's proposed assessment framework, in particular the proposal to categorise ICT expenditure as "recurrent" and "non-recurrent". These concerns, our recommendations for alternative categorisation of ICT expenditure and our comments on the series of questions raised by the AER in the consultation paper are provided in the attached submission.

We welcome further discussion with the AER on the ICT expenditure assessment proposal. Should you have any questions regarding this submission, please do not hesitate to contact me (07) 3851 6793 or Trudy Fraser on (07) 3851 6787.

Yours sincerely

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ICT Expenditure Assessment

Joint response to the AER's consultation paper

19 June 2019

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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1 INTRODUCTION

On 8 May 2019 the Australian Energy Regulator (AER) published a consultation paper on Information and Communications Technology (ICT) Expenditure Assessment (consultation paper). The consultation paper is part of the AER's review of its ICT expenditure assessment methodology.

The purpose of the review is to determine whether the AER's current ICT expenditure assessment tools are fit for purpose given the increasingly critical role ICT has in delivering energy services. The consultation paper outlines the AER's preliminary thinking and suggested revised ICT expenditure assessment approach to be applied to future regulatory determinations.

The AER has requested that interested parties make submissions on the approach proposed and issues raised in the consultation paper by 19 June 2019. Comments in response to the consultation paper are provided by Energex and Ergon Energy in sections 2 and 3 of this submission.

We are available to discuss this submission or provide further detail regarding the issues raised.

2 GENERAL COMMENTS

Energex and Ergon Energy generally support the AER's efforts to continue to review and refine its regulatory tools to ensure they remain fit for purpose. We acknowledge that ICT is increasingly becoming an integral part of delivering energy services. ICT systems and services are a key enabler to efficiently and effectively delivering our electricity distribution services. With technology rapidly changing and the electricity grid undergoing transformation, our reliance on, and investment in, ICT systems and services will continue to grow into the future. In this context, it is timely that the AER revisits its ICT assessment approach to ensure that distribution network service providers' (DNSPs') ICT investments are in the long-term interests of customers.

Notwithstanding this, Energex and Ergon Energy have some concerns with the AER's proposed ICT expenditure assessment framework. In particular, we consider that categorising ICT expenditure as "recurrent" and "non-recurrent" may be ineffective and too open to interpretation. As ICT investments are mostly cyclical, with the exception of compliance-driven and new capability investments, Energex and Ergon Energy suggest that the AER should consider using four categories, being "short-cycle", "long-cycle", "compliance" and "new capability".

3 TABLE OF DETAILED COMMENTS

Consultation Paper Feedback Question	Ergon Energy and Energex response
Question 1	
Do you agree with the RIN categories of ICT expenditure? Are there others we should request DNSPs to report? Does it make more sense to disaggregate ICT into its 'recurrent' and 'non-recurrent' components? Ausgrid presented their ICT capex forecast into the categories 'Comply', 'Protect (cyber)', 'Maintain' and 'Adapt' that are based on purpose. Would stakeholders find these categories more useful than our suggested recurrent and non-recurrent categories?	Energex and Ergon Energy consider that disaggregating ICT into the two categories of "recurrent" and "non-recurrent" may be ineffective and too open to interpretation. These categories do not appropriately describe the drivers or purpose of the expenditure, which is useful for stakeholders in understanding our ICT investments. We consider that the categories proposed by Ausgrid (i.e. "comply", "protect", "maintain" and "adapt") and the Reset Regulatory Information Notice (RIN) categories (i.e. "asset replacements", "extensions", "remediation" and "capability growth") reasonably attempt to set out the purpose of ICT expenditure, but that further refinement and standardisation is required. Energex and Ergon Energy consider that the AER should recognise that most ICT investments are cyclic in nature unless they are specifically meeting a compliance obligation or delivering a new capability. Cyclic investments differ between short-cycle investments and long-cycle investments. We therefore suggest that the AER should consider using four categories of ICT investment, namely: • ***Short-cycle,*** e.g. renewal of personal computers (PCs), laptops, servers and minor application updates which typically occur within a five year cycle • ***Long-cycle*** e.g. upgrades and replacements of core systems which may occur on a seven to twelve year cycle • ***Compliance*** e.g. the recent Power of Choice requirements

Consultation Paper Feedback Question	Ergon Energy and Energex response
	• ***New capability*** e.g. the initial implementation of Distribution Management System (DMS) capability within a DNSP. Following the initial deployment, subsequent upgrades and replacements would be considered cyclic (typically "long-cycle"). For each category of cyclic investment ("short-cycle" and "long-cycle"), DNSPs should provide evidence of prudent asset lifecycle management practices. For short-cycle assets, this would be in the form of industry-typical equipment replacement guidelines. For example, the forecasting guidelines for PC replacements might indicate that Windows laptops are to be replaced "on failure" with an assumed average life of three years. In the case of long-cycle investments, a more sophisticated asset lifecycle management method should be applied. ICT industry models such as the Gartner "PACE" model may be employed for this purpose. While long-cycle investments are required for sustainability, supportability and security, Energex and Ergon Energy recognise that the capability of the upgraded (or replaced) system is likely to exceed the legacy capability. Therefore, long-cycle investments should be supported by business cases and cost-benefit analyses. However, given that these investments are cyclic, the prudence of these investments would not be entirely based on the net present value (NPV) analysis. ICT investments in pure "compliance" initiatives should be assessed based on the efficiency of the proposed delivery approach. The assessment should consider the scale of impact on the respective DNSP's existing systems and processes. The DNSP may also make alternative proposals to achieve compliance through minimalist short-term updates of existing systems versus leveraging the opportunity for longer-term system renewal and sustainability. The prudence and efficiency of investments in "new capability" should be assessed on the supporting business cases and cost-benefit analyses.

Consultation Paper Feedback Question	Ergon Energy and Energex response
Question 2	
What other methodologies can we use to benchmark ICT capex? What are the benefits and disadvantages of each approach? What other benchmarking normalising factors do you consider appropriate? For example, Regulatory Asset Base (RAB) could be used as a proxy for asset size.	Energex and Ergon Energy consider that benchmarking is only appropriate for short-cycle investments. These investments should be assessed by considering the drivers set out in the table below: **Short-Cycle Asset Classes** / **Key costs drivers** End User Devices (e.g. desktops, laptops, tablets, printers, phones) — • Number of employees Server Infrastructure — • Customers numbers • Line length Storage Infrastructure — • Customers numbers • Line length Data Network Infrastructure — • Customers numbers • Line length Telecommunications Infrastructure — • Customers numbers • Line length Other ICT Infrastructure (e.g. operating environments, security applications and appliance, etc.) — • Customers numbers • Line length While the RAB value may potentially be used as a proxy for the business scale, we believe this is less valuable than the drivers identified above.

Consultation Paper Feedback Question	Ergon Energy and Energex response
	Furthermore, application of a benchmark-based assessment approach requires high-quality consistent benchmark data for each of the above-listed asset classes for each DNSP. Until now, such data has not been provided consistently at the required level of granularity to be meaningful for benchmarking purposes. Therefore, while we support the benchmarking concept, it should only be used: (a) in conjunction with assessment of the prudence of each DNSP's ICT asset lifecycle management planning; and (b) following revision of the RINs to capture consistent benchmark data for each ICT asset class across all DNSPs.
Question 3	
We note the difficulty in assessing the efficiency of implementing compliance driven step-change ICT projects. What information do you consider is required to assess the efficiency of these projects?	Energex and Ergon Energy acknowledge the challenges created by compliance investments, both for DNSPs and the AER. Examples of such projects include the recent implementation of the Power of Choice requirements and the National Energy Customer Framework. We consider that forecast compliance investments should be assessed based on the efficiency of the proposed delivery approach. This assessment should consider the scale of impact on the respective DNSP's existing systems and processes. The DNSP may also make alternative proposals to achieve compliance through "minimalist" short-term updates of existing systems versus leveraging the opportunity for longer-term system renewal and sustainability. In such circumstances, the AER should consider the relative long-term merits of both approaches, rather than just endorsing the lowest implementation-cost option.

Consultation Paper Feedback Question	Ergon Energy and Energex response
	This assessment approach is valid where future compliance obligations are known when a DNSP submits its five-yearly revenue proposal to the Regulator. However, we note that this is frequently not the case. Typically, the compliance obligations arise within the regulatory period and the DNSP must manage the costs within existing revenue allowances (i.e. re-prioritising and substituting planned investments) unless they submit a cost pass-through application.
Question 4	
What do you consider a sufficient business case for an ICT project should include?	When a DNSP submits its five-yearly regulatory proposal with a full set of accompanying business cases, these business cases are often prepared well in advance of normal investment governance requirements. In some cases, the business cases are developed five to seven years before the planned investment timing. Given this situation, it is reasonable to consider that the business cases will be relatively "high level" in nature, typically targeting Gate 1 or Gate 2 in accordance with the United Kingdom's Office of Government Commerce lifecycle. Such business cases should include: • Problem description; • Options assessment; • Forecast indicative costings; • Benefits analysis and forecast financial contribution to productivity improvement savings targets; • NPV assessment; and • Impact assessment.

Consultation Paper Feedback Question	Ergon Energy and Energex response
	Risks should reasonably be assessed but financial quantification of risk is unreliable, inconsistent in application, and of little value at this point of planning analysis. As noted in response to Question 1, long-cycle investments (e.g. upgrades and replacements of core systems which may occur on a seven to twelve-year cycle) should typically deliver business productivity savings. Therefore, it is appropriate that this form of investment is supported by business cases. However, it should also be recognised that this form of investment is primarily required to ensure system sustainability, supportability and security, consistent with prudent ICT asset lifecycle management planning. As such, these investments should not be assessed based on the NPV alone.
Question 5	
What is your opinion on us requesting DNSPs provide post implementation reports from historical ICT investments?	Going forward, Energex and Ergon Energy support the reporting of benefits realisation for approved investments provided that the reporting requirements are clearly identified and detailed in advance. Such a reporting regime would need to differentiate between: • "Hard" financial benefits (i.e. monetary savings realised solely by program investments); • "Supported" financial benefits (i.e. monetary savings enabled through a combination of ICT and non-ICT actions); and • "Soft" financial benefits (i.e. improvements in business productivity that are not directly monetised but result in improved operational performance). We do not support the AER retrospectively assessing the benefits of historical investments where the proposed method of assessment had not been notified in advance. The subjectivity involved in such a retrospective assessment is high, with companies typically leveraging a collection of individual initiatives to enable productivity improvement through programs of transformational change.

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Question 6	
What do you consider is required to demonstrate that DNSPs have incorporated benefits into its overall proposal?	Energex and Ergon Energy consider that DNSPs should seek to maximise the business improvement benefits from ICT investments. Benefits should be reflected as adjustments (i.e. reduction) in overall capital expenditure (capex) and operating expenditure (opex) allowances to avoid DNSPs over-recovering costs and customers paying twice. Financial benefits are most relevant to "new capability" driven investments. DNSPs should be able to quantify the planned benefits associated with such initiatives and describe how they have been factored into the overall proposed capex and opex allowances. Expenditure for long-cycle recurrent investments (e.g. upgrades and replacements of core systems which may occur on a seven to twelve-year cycle) is primarily required for systems sustainability, supportability and security consistent with prudent ICT asset lifecycle management planning. Nonetheless, these forms of investment also deliver some financial benefits. These benefits should also be factored into the overall proposed capex and opex allowances. Where a DNSP proposes a broad productivity adjustment and identifies a set of business case benefits as contributing to that productivity adjustment, the AER should focus on a holistic assessment of the overall proposal upon application of the productivity adjustment.
Question 7	
Which scenario - self funding or productivity improvement - would you prefer and why? Are there other scenarios we should consider?	The self-funding approach is problematic because it is unclear how the ICT capex will be treated once incurred by the DNSP. If the capex is excluded from the RAB (i.e. treated as an off-balance sheet investment), there is significant risk that the distributor will not recover its efficient costs. While the expenditure will deliver operational benefits (reductions in capex and

Consultation Paper Feedback Question	Ergon Energy and Energex response
	opex), the DNSP only retains 30 per cent of the benefits under the expenditure incentive schemes (i.e. Efficiency Benefit Sharing Scheme and Capital Efficiency Sharing Scheme). This approach is likely to disincentivise a DNSP from pursuing projects likely to be beneficial to customers. If the AER deems a proposed project to be prudent and efficient but is not satisfied that the benefits have been adequately reflected in the overall proposal, Energex and Ergon Energy consider that the AER should collaborate with the DNSP to ensure that the company's opex and capex forecasts incorporate appropriate adjustment (see Question 8).
Question 8	
We welcome stakeholder comments on the practical application of a productivity adjustment. If we were to include a productivity adjustment on the basis of ICT expenditure, how should it be incorporated? If so, how should we determine how large should this adjustment be? What aspects of a DNSP's forecast should it be applied to?	ICT investment is a major enabler of productivity improvement. When a significant ICT system is implemented or renewed, the change necessarily impacts business processes and staff across the business. This impact should be leveraged for good, through implementation of more efficient business processes leveraging the new and improved system capability. Despite this significant contribution, it is difficult to attribute a DNSP's overall achievement of productivity improvement targets specifically to ICT. We therefore believe the AER should assess a company's productivity in its entirety, rather than just the ICT contribution to the productivity adjustment. This includes the company's forecast productivity adjustments for both operating and capital expenditure. It may also be valuable for the AER to gather data on the potential productivity levels which should be targeted through common DNSP ICT investments (e.g. implementation of modern DMS capability, Field Mobile Workforce systems, Enterprise Resource Planning / Enterprise Asset Management capability, Mobile Device Management and Customer Market Systems).

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	If transparently sourced and consulted upon, these target productivity levels (and the correlation with ICT systems investments) could form an informative base against which to measure the extent to which companies are deriving appropriate improvement from each investment. Translation of these targets to productivity adjustments for a specific DNSP would require recognition of a DNSP's current-state performance, geography, operating environment and the delta to the expected target-state.