Deloitte Access Economics

Queensland Distribution Network Service Providers Opex performance analysis

Australian Energy Regulator

Addendum to our April Report – Ergon's Revised Proposal

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Deloitte.

Contents

Glossary

AER	Australian Energy Regulator
April Report	Deloitte Access Economics' report *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015
ASL	Average Staffing Level - the number of full-time equivalent employees undertaking standard control services work receiving salary or wages (Paid FTE) over the entire year
Ausgrid	Ausgrid, formerly EnergyAustralia
BAU	Business-as-usual
BEP	Business Efficiency Program
BICoE	Business Intelligence Centre of Excellence
CA RIN	Category Analysis Regulatory Information Notice Templates
Capex	Capital Expenditure
CEO	Chief Executive Officer
CIO	Chief Information Officer
DNSP	Distribution Network Service Provider
EBA	Enterprise Bargaining Agreement
EEP	Effectiveness and Efficiency Program
EEUCA	Ergon Energy Union Collective Agreement 2011
Endeavour	Endeavour Energy, formerly Integral Energy
Energex	Energex Limited
Ergon	Ergon Energy
Essential	Essential Energy, formerly Country Energy
EUCA	Energex Union Collective Agreement 2011
FTE	Full Time Equivalent
FY	Financial Year
GBR	Gross to Base Salary Ratio
ICT	Information and Communications Technology
IDC	Inter-Departmental Committee
IRP	Independent Review Panel
MOU	Memorandum of Understanding
MPFP	Multilateral Partial Factor Productivity
MTFP	Multilateral Total Factor Productivity
NEM	National Electricity Market
NER	National Electricity Rules
NPV	Net Present Value
Opex	Operating Expenditure
OCIO	Office of Chief Information Officer
PoW	Program of Works
RAB	Regulatory Asset Base

Revised Proposal	Documents submitted by Ergon to the AER in response to its April 2015 draft report
RIN	Regulatory Information Notice
SCS	Standard Control Services
SPARQ	SPARQ Solutions – a wholly owned joint venture between Energex and Ergon which provides ICT services to the DNSPs.

Executive Summary

Our April Report

In late 2014, the Australian Energy Regulator (AER) engaged Deloitte Access Economics Pty Ltd (Deloitte) to conduct an analysis of the Queensland distribution network service providers' (DNSPs) operating costs over the 2010-15 regulatory period. Our report, titled *Queensland Distribution Network Service Providers - Opex Performance Analysis* ('the April Report') was issued in April 2015.[1] This analysis informed the AER's assessment of the DNSPs' 2015-20 operating expenditure (opex) forecasts and was referenced in the AER's Preliminary Determinations for each of the DNSPs which were issued on 30 April 2015 (referred to collectively as 'the Preliminary Determination').

In our April Report we were asked to identify the factors driving the gap in opex performance for Energex and Ergon Energy in comparison to their peers in the opex base year (2012-13) and in 2013-14. This productivity gap was demonstrated in the AER's benchmarking analysis, particularly Multilateral Partial Factor Productivity (MPFP) scores which we reproduced in our April Report, which showed Ergon's productivity as particularly poor in comparison to the other NEM DNSPs.[2] Our report was also informed by the findings of a 2012 Independent Review Panel on Network Costs (IRP) which investigated the potential for reforms within Energex and Ergon, and reported that the DNSPs could together save $1.4 billion in indirect (overhead) costs over the 2015-20 regulatory control period through implementing 45 recommendations. We found that although they had each made progress towards improving their efficiency since the IRP's recommendations, much of the subsequent savings and benefits were realised after the 2012-13 opex base year.

We concluded that the key factor driving the opex efficiency gap between the Queensland DNSPs and their peers in other states, particularly for Ergon, appeared to be the large labour force relative to network size, which implies relatively low productivity. We identified reasons for this lower productivity, which included Enterprise Bargaining Agreement (EBA) provisions such as requirements for contractor switching and restrictions around the tasks that contractors can undertake. We also noted that the limited number of Single Person Tasks that Ergon is able to implement had contributed to its relatively large workforce. Other factors such as workforce culture, management and operational decisions were also identified. ICT costs were also found to be a material source of inefficiency.

Revised Proposals

The Queensland DNSPs responded to the AER's Preliminary Decision and our April Report in their Revised Proposals submitted to the AER in July 2015. Ergon's response particularly

[1] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015.

[2] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 12.

criticises our analysis and approach.[3] This Addendum to our April Report focuses on responding to Ergon's revised proposal and further analysing the efficiency of Ergon's labour costs during the 2010-15 regulatory period. In doing so, it builds upon the analysis in our April Report and the responses from Ergon.

This Addendum should be read in conjunction with our April Report.

Evidence of inefficiency

Ergon has suggested that the conclusions we reached in our April Report in relation to the efficiency of its opex were not supported by sufficient evidence.[4] We consider that our analysis and conclusions were supported by a significant volume of evidence which we gathered through consultations with Ergon and data requests. In addition, our findings are consistent with those made by the IRP[5] and EY[6], and not inconsistent with Price Waterhouse Coopers' (PwC's) findings on the drivers of higher network prices in Queensland, which were presented in a supporting document to Ergon's Revised Proposal titled 'Labour Expenditure Review'.[7]

We note that in responding to Ergon's Revised Proposal, the AER identified that Ergon's opex data used to generate the preliminary decision benchmarks included metering services costs, which had been excluded from other DNSPs' opex data. Accordingly, we understand that the benchmarking results have recently been revised to take into account this new information.[8] While Ergon's relative performance has improved slightly (from 0.48 to 0.52), it is still well below the benchmark DNSP score (0.77).

Number of employees and network size

Ergon and PwC have argued that, in finding that Ergon had a comparatively large workforce, our April Report did not adequately account for Ergon's large geographical footprint and differences in the environmental conditions that its network operates within.

The AER's economic benchmarking takes account of network size, geography and other differences, and yet shows that Ergon's opex efficiency is significantly lower than its peers. Our April Report sought to identify the reasons for this efficiency result, being factors other than geography or network size differences.

As part of this analysis, we considered the Local Service Agent (LSA) outsourcing model that Powercor implemented in the 1990s, which we consider explains some of the efficiency gap

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[3] For example, Ergon's Revised Proposal attachment EXP10.08 entitled Labour Expenditure Review ('PwC labour report'); Attachment SUB10.01 entitled Base Year Opex, and attachment SUB10.02 entitled Operating Expenditure.

[4] Ergon Energy, *Base Year Opex*, July 2015, p. 8.

[5] Independent Review Panel on Network Costs, *Electricity Network Costs Review*, 2013.

[6] EY, *Electricity network services Long-term trends in prices and costs*, 2013.

[7] PwC, *Labour Expenditure Review.*

[8] Economic Insights, *Response to Ergon Energy's Consultants' Reports on Economic Benchmarking*, 17 August 2015, p. 23.

between Ergon and Powercor. While it highlighted impediments and difficulties in its response, Ergon would benefit from a more detailed investigation of the LSA arrangements as recommended by the IRP, including the potential benefits that the model could offer. We maintain our view that the lack of an LSA model or a similar arrangement within Ergon's regional depots may be a reason for cost differences between it and Powercor.

Enterprise bargaining agreements

PwC's 'Labour Expenditure Review' which was attached to Ergon's Revised Proposal indicated that our April Report did not provide enough detail to support the conclusion that Ergon's EBA conditions are contributing to workforce inflexibility. It also contended that we did not provide sufficient evidence to support our conclusion that a lower level of outsourcing was a factor explaining Ergon's relatively poor productivity.

A detailed, bottom up, quantitative analysis of the differences in employee and contractor productivity and the impact of DNSP management on the practical application of EBA clauses was beyond the scope and timeframe for our April Report. However, the information we presented maintains a compelling argument that these are factors which go some way towards explaining the differences between Ergon's and its peers' productivity results.

SPARQ and ICT costs

Building on findings and recommendations made by the IRP, our April Report highlighted that Ergon's ICT expenditure was a material source of inefficiency.

Ergon's Revised Proposal disputed our comments around the level of ICT outsourcing it had undertaken in the base year, and our finding that it had misinterpreted the IRP's recommendations around outsourcing. Ergon provided new benchmarking analysis developed by KPMG which shows that, on a per kilometre or per employee basis, Ergon's ICT costs reflect the industry mean.

This KPMG report suggests that the ICT costs per customer benchmarks contained in our April Report do not portray Ergon in 'the most favourable light,' due to the size of its customer base. KPMG then presented some alternative benchmarks which showed Ergon's ICT costs as either at or below the NEM DNSP mean, including ICT Totex, capex and opex per network kilometre. We consider that the new ICT cost benchmarks presented by KPMG are not the most accurate indicators of Ergon's ICT cost efficiency in the base year, because they are linked to Ergon's employee numbers, which were among the highest in the NEM. We also consider there is a very limited connection between ICT costs and customer density or kilometres of line and therefore these benchmarks are not robust indicators of efficiency.

While we acknowledge that there is some uncertainty around the proportion of ICT costs which were market tested by SPARQ towards the end of the 2010-15 regulatory period, we maintain our view that limited outsourcing was undertaken by Ergon in the opex base year, which contributed to its inefficiency.

Overall, we maintain our view that Ergon's ICT expenditure is a source of inefficiency.

Conclusions

Ergon's revised proposal and supporting documents, while arguing against our overall findings do not contain evidence which challenges or changes the conclusions in our April Report. Accordingly, we maintain the view that Ergon's base year opex was inefficient, and that the key factor driving this inefficiency is its large labour force relative to network size, which implies relatively low productivity.

1 Introduction

1.1 Project objectives

In late 2014, the Australian Energy Regulator (AER) engaged Deloitte to conduct an analysis of the Queensland DNSPs' operating costs over the 2010-15 regulatory period. Our report, entitled *Queensland Distribution Network Service Providers - Opex Performance Analysis* was issued in April 2015.[9] This analysis informed the AER's assessment of the DNSPs' 2015-20 operating expenditure (opex) forecasts, including its estimate of prudent base year (2012-13) costs. It was referenced in the AER's Preliminary Decision for each of the DNSPs which were issued on 30 April 2015.

For the April Report we were asked to answer the following three questions:

1. What are the key factors driving the gap in opex performance (demonstrated by the benchmarking results) for Energex and Ergon Energy in comparison to their peers in 2012-13 and 2013-14?
2. To what extent have Energex and Ergon Energy fully implemented any of the recommendations from the independent review?
3. Are there reasons for Energex's opex productivity deteriorating between 2011-12 and 2012-13 other than inefficiency?

In our analysis to answer these questions, we tried to identify whether there were areas of inefficiency in the Queensland DNSPs' opex which might explain the gap in opex productivity suggested by the AER's benchmarking results. In doing so, we applied a definition of 'inefficiency' which is consistent with similar definitions set out in the AER's November 2013 Expenditure Forecast Assessment Guideline Explanatory Statement, specifically '*Efficient expenditure results in the lowest cost to consumers over the long term.*'[10]

1.2 Conclusions in the April Report

Our April Report was informed by a range of inputs, including two Queensland Government-led reviews that focused on reducing network costs. In particular, we took into account the findings of the IRP which investigated the potential for reforms within Energex and Ergon, and reported that the DNSPs could together save $1.4 billion in indirect (overhead) costs over the 2015-20 regulatory control period, through reforms articulated in a series of 45 recommendations.

Our April Report concluded that although Energex and Ergon had made progress towards improving their efficiency since the IRP's recommendations were finalised in 2012, much of the subsequent savings and benefits were realised after the 2012-13 base year.

[9] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015.

[10] AER, *Expenditure Forecast Assessment Guidelines – Explanatory Statement*, November 2013, p. 43.

We also noted that, in addition to savings made in 2013-14, both businesses were expecting to make further significant efficiency gains in the 2015-20 regulatory period, particularly through further reducing their staffing levels. Although it was difficult to form an accurate impression of the total value of opex efficiencies reflected in the base year, the FTE savings achieved and planned illustrated that both DNSPs had reduced their workforces materially since 2012-13.

We concluded that the key factor driving the opex efficiency gap between the Queensland DNSPs and their peers in other states, particularly for Ergon, appeared to be the large labour force relative to network size, which implies relatively low productivity. We identified reasons for this lower productivity, which included provisions in the EBA such as requirements for contractor switching and restrictions around the tasks that contractors can undertake. We also noted that the limited number of Single Person Tasks that Ergon is able to implement had contributed to its relatively large workforce. Other factors such as workforce culture, management and operational decisions were also identified.

We noted other potential sources of inefficiency included those areas identified by the IRP but not yet actioned by the DNSPs, including workforce flexibility and scheduling improvements, and for Ergon, making changes to the operational structure of its regional depots.

We also found that ICT was a source of higher costs. SPARQ's fees for Energex and Ergon increased significantly over the last regulatory control period, with particular increases in the capex fees (Asset Management/usage fees) and operational costs for SPARQ. We found some areas of inefficiency associated with maintaining bespoke, customised and out-of-date (legacy) systems, and noted that the IRP's concerns about SPARQ's governance arrangements had largely not been addressed by the panel arrangements established by the DNSPs and SPARQ.

1.3 Response to the 2014 Report

The DNSPs responded to the AER's Preliminary Determination in their Revised Regulatory Proposals (Revised Proposals) submitted to the AER in July 2015. Given the AER's Preliminary Determination accepted Energex's total forecast opex, Energex has not responded to our April Report with any material additional arguments. Ergon submitted a number of comments, as well as a number of consultant reports it commissioned (Ergon's Response).

This included:

- Attachment EXP10.08 entitled *Labour Expenditure Review* ('PwC labour report') which responds to some selected arguments raised in our April 2014 report.
- Attachment SUB10.01 entitled *Base Year Opex*, which discusses the PwC labour report.
- Attachment SUB10.02 entitled *Operating Expenditure*.
- Attachment 0A.02.21 entitled *Network Pricing Trends* ('PwC network pricing report') which reviews an EY report on Network Pricing Trends suggesting that privately owned DNSPs are more efficient.
- Attachment EXP10.02 entitled *AER Benchmarking of Ergon Energy Opex – Huegin Review of the Preliminary Determination* which contains a discussion on the impact of Ergon's network size on its costs.

- Attachment 0A.01.02 entitled (*Revised Best) Possible Price* which is an amended version of an attachment to Ergon's original regulatory proposal discussing the efficient programs Ergon has implemented.
- Attachment SUB09.06 entitled *Capitalised overheads and ICT Expenditure – Response* which addresses some of the findings we made in relation to SPARQ Infrastructure.
- Attachment EXP09.03 entitled *Report to the Board of SPARQ Solutions on ICT Expenditure - Forecasts for the Period: 2015 to 2020* which presents some additional information on ICT benchmarks.

In general Ergon disputed our conclusions, particularly our proposition that its labour costs were heavily impacted by labour conditions entrenched in EBAs which are well above peer costs. Key issues raised were in relation to:

- Our approach and methodology
- The extent to which EBA conditions are within Ergon's control
- The potential benefits of the Powercor Local Service Agent (LSA) model
- Market-testing of SPARQ services.

In preparing this Addendum we have carefully considered Ergon's Response . While we do not agree with all of the analyses conducted and conclusions reached, on the whole we have found them helpful in advancing discussion of the issues at hand.

1.4 Purpose of this Addendum

This Addendum provides further analysis on the efficiency of Ergon's opex during the 2010-15 regulatory period. In doing so it builds upon the analysis in our April Report in light of the responses from Ergon. This Addendum supports the AER's final determination on Ergon's opex allowance for 2015-20.

1.5 Structure of this Addendum

The purpose of this Addendum is to respond to issues raised and new information provided in Ergon's Revised Proposal, and discuss any implications for our original analysis and conclusions in the April Report. Accordingly, this Addendum is structured according to the broad issues raised in Ergon's Revised Proposal:

- Chapter 2 addresses Ergon's comments on the lack of evidence of its inefficiency in the base year in our April Report
- Chapter 3 addresses PwC's comments on Ergon's network size and employee numbers
- Chapter 4 addresses comments on Ergon's EBA
- Chapter 5 addresses comments on ICT costs and SPARQ Infrastructure; and
- Chapter 6 addresses comments on our approach to the review.

1.6 Confidentiality and reliance

While this Addendum is, in part, based on public information it also contains a range of information which has been provided to the AER by the DNSPs on a confidential basis. Besides containing commercially sensitive information, the public release of this information could materially harm the interests of the DNSPs in EBA negotiations. We therefore emphasise that the un-redacted version of this Addendum is prepared solely for the use of the AER and must not be distributed beyond the AER and the Queensland DNSPs. It is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity.

Whilst we have not responded to every opex-related issue raised in response to the April Report, we have addressed all material matters.

2 Evidence of inefficiency

Ergon's Revised Proposal and the attached report by PwC entitled 'Labour Expenditure Review' both suggested that our April Report did not provide sufficient evidence to support the conclusions we reached on the efficiency of Ergon's labour expenditure in 2012-13.

This section reiterates the volume of information we relied upon in reaching our conclusions in the April Report, as well as summarising other reports which had made similar findings to support our conclusions. We address some comments in Ergon's Revised Proposal relating to our assessment of Ergon's efficiency programs.

2.1 Evidence in our April Report

Ergon has suggested that there was a lack of evidence in our April Report, such that the analysis could not be relied upon.[11] Similarly, PwC has suggested that our April Report 'does not provide sufficient evidence to support the positions reached on Ergon Energy's labour efficiencies.'[12]

Our April Report presented a large volume of evidence that Ergon's labour costs were not efficient in the 2012-13 base year, including:

- Data showing that Ergon's labour costs were significantly above other rural businesses such as Powercor and AusNet Services
- Details on Ergon's efficiency program, in particular the already achieved and expected future savings that were reported in various Efficiency and Effectiveness Program (EEP) Wave 1 and Wave 2 reports
- Evidence that not all the IRP's recommendations to improve efficiency had been implemented by Ergon before the end of 2012-13 (nor to date), particularly improvements to workforce scheduling and ICT services
- Analysis of clauses in Ergon's EBA which highlight the inflexibility in its labour force, particularly with regards to contractor switching restrictions and single person tasks, which Ergon is trying to remove through ongoing union negotiations
- Data on the relatively low level of outsourcing of labour opex by Ergon when compared to its peers and information highlighting the efficiency gains that other DNSPs have achieved from outsourcing
- Evidence that Ergon's ICT costs had increased substantially over the 2010-15 period, and that its ICT systems landscape consists of several out-of-date and bespoke applications, which tend to be inefficient, more costly and higher-risk
- Evidence that Ergon has considered the implementation of a Local Service Agent (LSA) Model in its territory (as recommended by the IRP) and that it considered the model could result in lower costs to serve, reduced headcount and reductions in capex and ownership of property and fleet.

[11] Ergon Energy, *Base Year Opex*, July 2015, p. 8.

[12] PwC, *Labour Expenditure Review,* 1 July 2015, p. 4.

This information, along with the findings of the IRP and other sources helped to develop our conclusion that Ergon's opex was not at an efficient level in 2012-13.

We note that in responding to Ergon's Revised Proposal, the AER identified that Ergon's opex data used to generate the Preliminary Determination benchmarks included metering services costs, which had been excluded from other DNSPs' opex data. Accordingly, the benchmarking results have recently been revised to take into account this new information.[13] While Ergon's relative performance has improved slightly (from 0.48 to 0.52), it is still well below the benchmark DNSP score (0.77).

2.2 Independent Review Panel on Network Costs

In its May 2013 report, the IRP concluded that the DNSPs could together save $1.4 billion in indirect (overhead) costs over the 2015-20 regulatory control period, through reforms articulated in a series of 45 recommendations. These findings provided the starting point for our review of Ergon's opex efficiency.

As well as recommending changes to planning and reliability standards which would result in reductions in capital expenditure (capex), the IRP found areas of significant inefficiency in the DNSPs' expenditure, particularly when compared with privatised businesses in other states.[14] It recommended that the DNSPs continue to improve through the efficiency programs which had already commenced and reduce spending on contractors. It also made a number of recommendations specific to the arrangements between Energex and Ergon and their wholly owned joint venture, ICT service provider, SPARQ.

The following quotes from the IRP highlight the relevance of the IRP's findings for our review of Ergon's opex efficiency:

'The Panel also reviewed the [Queensland] DNSPs' overhead costs relative to their peers. The results for both DNSPs showed that their corporate overhead and support costs were among the least efficient. This is consistent with the findings of the "bottom up" analysis commissioned by the Panel.'[15]

'In this regard, the Panel reviewed the [Efficiency Program] reports and assessments prepared by the DNSPs, and met with the consultants that assisted the DNSPs in this process. These reviews varied in coverage and some areas within each business were not subject to full scrutiny. The Panel has therefore concluded that these efficiency programs can be expanded to identify and capture a broader range of possible cost savings.'[16]

'The Panel considers that the services currently provided by SPARQ may be delivered more efficiently by external service providers.'[17]

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[13] Economic Insights, *Response to Ergon Energy's Consultants' Reports on Economic Benchmarking*, 17 August 2015, p. 23.

[14] Independent Review Panel on Network Costs, *Electricity Network Costs Review*, 2013, p 102.

[15] Independent Review Panel on Network Costs, *Electricity Network Costs Review*, 2013, p. 36.

[16] Independent Review Panel on Network Costs, *Electricity Network Costs Review*, 2013, p. 49.

[17] Independent Review Panel on Network Costs, *Electricity Network Costs Review*, 2013, p. 53.

Since 2012, Energex and Ergon have sought to address the IRP recommendations through various efficiency programs and reforms to their businesses, including reductions in the size of their workforces. Costs have fallen as a result, however, our April Report noted that there are still a number of recommendations which have not yet been addressed. We concluded that along with savings yet to be realised, the majority of the efficiencies Energex and Ergon have realised since 2012 are not reflected in the opex base year, 2012-13. We estimated the value of major efficiencies achieved and forecast in 2013-14 and 2014-15 (after the base year) to be in the order of $108 million.[18]

2.3 Ergon's efficiency programs

Both Energex and Ergon embarked on significant business efficiency improvements around the time of the IRP's review, pre-empting and then addressing the findings about the efficiency of their businesses. Our April Report explored the extent to which these efficiency programs had delivered savings before the opex base year (2012-13), to inform the AER's assessment of its suitability as a base for efficient costs going forward.

Ergon's revised proposal (Base Year Opex) suggested that our April Report didn't account for the '*cost reductions and productivity gains made by Ergon Energy relative to other NEM DNSPs across the 2015-2019 period*.'[19]

Information about the EEP was provided by Ergon during our review, which informed our analysis and conclusions. We presented and discussed that information in several places in our April Report, highlighting the extent to which the EEP had exceeded Ergon's initial expectations. For example, we noted that in the first year of EEP 1, $113 million of cost savings were realised, $43 million more than the initial target of $70 million.[20] We did not compare the efficiency savings that had been achieved by Ergon with those of other NEM DNSPs in recent years, as our scope was to understand the extent to which cost efficiencies identified by Ergon and others would be reflected in its base year costs, not to compare the success of efficiency programs among NEM DNSPs.

However, we agree that the work that Ergon has undertaken since the IRP Review through its EEP program is significantly improving the efficiency of the business, which will reduce the benchmarked productivity gap between Ergon and some of its peers.

Ergon's Revised Proposal *Deliverability Plan* identifies the ongoing benefits that the EEP has provided to the operational parts of its business, and suggests that efficiency benefits in the order of $34 million are expected to be delivered to the Operations Business.[21] It is not clear over what period this benefit will be realised.

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[18] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 65.

[19] Ergon Energy, *Base Year Opex,* p. 9

[20] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 25.

[21] Ergon Energy, *Deliverability Plan*, p. 44.

Data on efficiencies achieved

Ergon's Revised Proposal document stated that the following statement in the April Report was incorrect and had been misinterpreted by Deloitte:

> *From the information we have reviewed, it is apparent that while substantial efficiency gains were realised in 2012-13 ($113 million), additional cost reductions were also achieved in 2013-14 (estimated at $98 million). These additional savings would not be reflected in the opex base year.*[22]

This estimate of $98 million was obtained from *Effectiveness and Efficiency Program Updates* (separate Word and Powerpoint documents) from an Ergon Board Subcommittee, dated 31 January 2014.[23] These documents were provided by Ergon in response to our request for 'all follow-up or progress reports' associated with Ergon Energy's Efficiency and Effectiveness Program.[24] The documents formed *Tranche 5* of the documents submitted, being the latest information available about the EEP savings. An example of the information which we used to estimate that $98 million of savings had been achieved is contained in the quote below:

> *The EEP Wave 1 set of initiatives were predominantly focused on the overhead areas of the business and the Ergon Executive Leadership team successfully delivered year 1 (2012/13) of the program with final benefits realised $113 million against a target of $70 million. In addition an incremental benefit for Wave 1 initiatives of $50 million has been built into 2013/14 budgets. A further incremental end-state benefit of $48 million for EEP wave 1 was identified but requires confirmation that it can be achieved.*[25]

This statement highlighted that Ergon had far exceeded its target of efficiency savings in 2012-13, and had identified $50 million of savings for 2013-14, plus an additional $48 million of savings which still required confirmation as at January 2014. Given Ergon had exceeded its savings forecast in 2012-13, we considered it reasonable to assume that it would have been able to meet the total identified and forecast savings for 2013-14. Ergon's *Base Year Opex* Revised Proposal has suggested that this was an incorrect assumption, however, has not provided any information on the EEP savings which were actually achieved in 2013-14.

Given the $98 million of savings were identified, albeit with $48 million of this subject to 'confirmation,' we maintain the view that this is a reasonable estimate of the savings not reflected in the opex base year. These savings are significant - they represent over 15% of Ergon's adjusted base year opex of $317 million – and are well in excess of the rate of

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[22] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 28.

[23] Ergon Energy, *Effectiveness and Efficiency Program Update,* 31 January 2014 (Powerpoint and Word reports), provided in response to Ergon, Response to information request AER ERG 006, Question 4.

[24] Ergon, Response to information request AER ERG 006, Question 4.

[25] Ergon Energy, *Effectiveness and Efficiency Program Update,* 31 January 2014, provided in response to Ergon, Response to information request AER ERG 006, Question 4.

annual ongoing productivity savings that might be expected. It is therefore reasonable to infer that Ergon's base year costs were inefficient.

2.4 EY Report on Network efficiencies

In 2013, EY was engaged by NSW Treasury to undertake an analysis of long term trends in DNSP prices and costs, specifically focusing on the differences in prices and costs of the publicly owned NSW and Queensland DNSPs, as compared to the privatised Victorian and South Australian DNSPs. EY found that:

> *In NSW and Queensland, the distribution networks over the period of the analysis:*
>
> *• Increased their underlying operating costs per unit of energy distributed in real terms*
>
> *• Spent more on operating and capital costs than the allowances provided by the regulator over the past two complete regulatory periods (which covers a total of 10 years)*
>
> *In Victoria and South Australia, the distribution networks over the period of the analysis:*
>
> *• Reduced their underlying operating costs per unit of energy distributed in real terms*
>
> *• Spent less on operating and capital costs than the allowance provided by the regulator over the past two complete regulatory periods*.[26]

In 2015, EY was commissioned by Infrastructure Partnerships Australia to produce a similar report focusing entirely on Queensland electricity prices and comparing the outcomes to privatised networks. EY found that:

> *If Queensland had experienced similar growth rates in network charges as Victoria and South Australia after privatisation, residential network bills could have been up to 37% or $570 lower in 2012-13;*
>
> and
>
> *While the average distribution network charges in rural Victoria have increased more than the average distribution network charges in urban and CBD networks in Victoria, the rate of increase was well below that of the average distribution network charge increase in Queensland.*[27]

These findings are consistent with comments made by the IRP, and provide additional evidence to support the AER's benchmarking and our conclusions on Ergon's opex efficiency.

PwC report on network efficiencies

Ergon engaged PwC to review the findings of the EY Pricing Trends Report, in support of its Revised Proposal. PwC reviewed the factors that EY had identified as driving higher prices in Queensland, including conflicting objectives faced by government owned corporations, record capex programs, Queensland's low density population and falling energy consumption. PwC concluded that, while these are important factors, there are other

[26] EY, *Electricity network services Long-term trends in prices and costs*, 2013, p. 11.

[27] EY, *Network Pricing Trends - Queensland Perspective*, 20 January 2015, p. 15.

factors driving the different pricing outcomes, including the size of the RAB, the WACC, expenditure allowances and jurisdictional specific regulatory obligations.

We do not disagree with factors that both EY and PwC have identified as reasons for Queensland customers facing higher electricity prices. While EY has identified higher costs among Government-owned DNSPs, PwC's analysis ultimately does not address the question of Ergon's efficiency. The factors we identified in our April Report including workforce flexibility and culture are additional, associated drivers of Ergon having higher opex than its peers over 2010-15.

2.5 Conclusion

Ergon has suggested that the conclusions we reached in our April Report in relation to the efficiency of its opex were not supported by sufficient evidence. We consider that our analysis and conclusions were supported by a significant volume of evidence which we gathered through consultations with Ergon and data requests. In addition, our findings are consistent with those made by the IRP and EY, and not inconsistent with PwC's findings on the drivers of higher network prices in Queensland.

3 Number of employees and network size

Ergon argued that, in finding that Ergon had too many employees, our April Report did not adequately account for Ergon's large geographical footprint and differences in the environmental conditions that its network operates within.

The AER's economic benchmarking accounts for network size, geography and other important differences between DNSPs, and shows that Ergon is relatively inefficient, even after making post model adjustments. Our analysis sought to identify the reasons for this efficiency result, being factors other than geography or network size differences.

As part of this analysis, we considered the Local Service Agent (LSA) outsourcing model that Powercor implemented in the 1990s, which may explain some of the efficiency gap between Ergon and Powercor. While Ergon and PwC have argued that there are barriers to the LSA model in Queensland, it is clear that opportunities to introduce a LSA (or similar model) have not been subject to a rigorous financial assessment.

3.1 Geographic diversity

PwC's report *Labour Expenditure Review* suggested that the analysis in our April Report did not adequately account for Ergon's network geography:

> '*a material factor impacting on* [Ergon's] *number of employees that has not been adequately considered in the Performance Analysis Report* [our April Report] *is the differences in Ergon Energy's network characteristics compared to other service providers.*'[28]

PwC presented information on Ergon's geographic area, line length, customers, number of poles and zone substation transformers. It suggested that even though the AER has argued that its benchmarking model sufficiently accounts for customer density, Ergon has a 'materially different operating environment compared to its rural peers.'[29] PwC stated that an indicator of the impact of Ergon's long network and geographical footprint is in the significantly longer travel distances for its employees to operate, maintain and inspect assets. PwC also highlighted some other factors which it considers are driving Ergon's benchmarking performance, including its relatively high proportion of SWER and sub-transmission lines and harsh weather conditions.[30]

Huegin has presented a related argument in its report *AER Benchmarking of Ergon Energy Opex*, suggesting that the more radial nature of Ergon's network is not adequately

[28] PwC, *Labour Expenditure Review,* p 8.

[29] PwC, *Labour Expenditure Review,* p 9.

[30] PwC, *Labour Expenditure Review,* p 11.

accounted for in the AER's economic benchmarking.[31] Huegin argued that as a DNSP's spatial density decreases, there is less opportunity to share resources between depots, requiring more staff and different approaches to maintenance activities. Huegin stated that:

> *'Depots that are geographically dispersed and therefore have access to smaller areas of the network are unlikely to have the same capacity for specialisation and will be required to perform a wider range of activities – resulting in higher training costs and possibly higher labour rates.'*[32]

Huegin argued that these geographic differences cannot be explained by only using circuit line length, customers, ratcheted maximum demand or undergrounding, which are the factors that the AER's economic benchmarking incorporates.[33]The AER's economic benchmarking takes account of network size, customer density and various other important differences, and shows that Ergon's opex is relatively inefficient compared to its peers. The analysis in our April Report sought to identify the reasons for this efficiency result, being factors other than geography or network size differences. In doing so, we identified specific factors, including clauses in Ergon's EBA and inefficiencies associated with its ICT environment, which we consider are largely unrelated to network size and geography, but which could explain the AER's benchmarking results. We also took into account the significant efficiency initiatives that Ergon was itself planning or implementing.

The AER's benchmarking consultant, Economic Insights considered that Ergon's greater proportion of SWER lines compared to its peers would actually overstate Ergon's opex efficiency in the benchmarking results due to the fact that the lower reliability associated with SWER was not taken into account in the SFA model. In doing so, Economic insights drew on an argument made by a consultant for the NSW DNSPs noting SWER featured lower opex because:

> *'its long span lengths lead to fewer poles per circuit km and its limited pole top hardware should result in lower Opex costs on a line kilometre basis than conventional two, three or four wire line construction'*.[34]

In relation to the higher proportion of sub-transmission lines, the AER's post model operating environment factors take into account the higher costs of operating higher voltage lines, which resulted in a 4.6% adjustment to Ergon's efficiency score.[35] Similarly, we note that the impact of extreme weather conditions was also taken into account in a 3% operating environment factor adjustment to Ergon's benchmarked performance.[36]

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[31] Huegin, *AER Benchmarking of Ergon Energy Opex – Huegin Review*, p. 46.

[32] Huegin, *AER Benchmarking of Ergon Energy Opex – Huegin Review*, p. 47.

[33] Huegin, *AER Benchmarking of Ergon Energy Opex – Huegin Review*, p. 47.

[34] Economic Insights, *Response to Consultants' Reports on Economic Benchmarking of Electricity DNSPs* – 22 April 2015, p. 31.

[35] Economic Insights, *Response to Consultants' Reports on Economic Benchmarking of Electricity DNSPs* – 22 April 2015 p. 69.

[36] Economic Insights, *Response to Consultants' Reports on Economic Benchmarking of Electricity DNSPs*– 22 April 2015, p. 69.

The AER and Economic Insights have considered and rejected Huegin's argument around radial networks not being properly accounted for in the benchmarking. Economic Insights stated that:

> *In our view the line length based customer density measure used in our study is the only objective and verifiable measure available and captures the most important dimensions of customer location affecting DNSP costs.*[37]

EMCa has also separately analysed the factors that drive maintenance cost differences between sparse rural networks and rural DNSPs with greater customer density. EMCa found that the primary factors are those which are also accounted for in the AER's benchmarking, including route line length, proportions of SWER and subtransmission lines and customer numbers.[38]

Both Economic Insights' and EMCa's analysis suggests that there are factors other than geographical network size and customer density which explain the efficiency gap between Ergon and its peers. It is these factors which our April Report sought to identify.

Huegin's suggestion that less dense networks would face higher labour rates due to the limited availability of specialist labour in rural locations is not supported by our analysis of DNSP wage rates in the NEM. As we outlined in our April Report, the key driver of Ergon's opex inefficiency is its number of employees, not their wage rates. We expect that Ergon could overcome a lack of specialist knowledge in rural areas by mobilising its specialists to where they are needed. We understand Ergon currently flies its staff to various locations in its network as required.[39]

3.2 Local Service Agent Model

One of the recommendations that the IRP made in its 2012 report was that Ergon should investigate whether an LSA model could be adopted for some services in regional network areas. Noting that Ergon had not yet made material progress on this recommendation, our April Report discussed the potential benefits that such a model could hold for Ergon, based on the efficiencies that Powercor had achieved since its implementation of LSAs in the 1990s.[40]

In its report *Labour Expenditure Review,* PwC noted that our April Report provided no quantifiable details on the efficiency gains achieved by Powercor due to their adoption of the LSA model. It noted that the restrictions in Ergon's EBA on outsourcing, single person tasks and contractor switching are barriers to the adoption of an LSA model in Queensland.[41]

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[37] Economic Insights, *Response to Consultants' Reports on Economic Benchmarking of Electricity DNSPs*, 22 April 2015 p. 15.

[38] EMCa, *Relationship between Opex and Customer Density for Sparse Rural Networks*, p. 1-2.

[39] For example, this regional Queensland airline highlights the services it provides to Ergon: http://www.hinterlandaviation.com.au/

[40] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 58-62.

[41] PwC, *Labour Expenditure Review,* p. 17.

In our April Report, we acknowledged that a detailed investigation and quantification of the costs and benefits of an LSA model would be needed before it could be implemented by Ergon. We also highlighted the EBA clauses which would need to be amended to allow greater flexibility for contractors to undertake tasks through an LSA model.[42]

PwC highlighted that Ergon's cyclone-prone environmental conditions require it to consider how it will be able to deliver emergency response when consolidating depots. We agree that there are a range of considerations that Ergon will need to take into account when investigating the potential for an LSA model in its territory, however, we do not consider climatic conditions pose an absolute barrier to Ergon implementing a similar arrangement to Powercor. Although there are obvious differences between mines and DNSPs, we note that outsourcing of emergency response services occurs at mines in regional Queensland, suggesting that environmental and emergency risk sharing through contracts is possible.[43]

PwC suggested that Ergon's customer research has demonstrated that maintaining local depots and current network reliability are key priorities for its customers, which would be important to consider in the context of decisions around maintaining a local presence in regional areas.[44] We have not reviewed the customer research referred to by PwC in any detail (as this was outside our scope of work), however, we note that it appears to be high level, relatively simplistic and does not involve choice modelling techniques.[45] Although we agree that community support for an LSA model will be important for its successful implementation by Ergon, we question whether the research Ergon has carried out to date has adequately tested consumer attitudes to the LSA model, in particular the role for existing local businesses to take over depots in a similar way to which Powercor drew on the resources of local communities in establishing its LSAs. For example, we noted in our April Report that Powercor supported its early LSAs by providing business and financial management training. It also supported the LSA businesses in their early stages, making payments through a retainer base which was progressively wound back as both the LSAs and Powercor grew more confident in workflow and the arrangement. Where LSAs were taken over by incumbent depot staff, Powercor also encouraged them to seek other similar business opportunities, such as local electrician work to improve their business sustainability.[46]

PwC also noted that 'United Energy has moved from an outsourced model to an insourced model since privatisation and is one of the more efficient networks' suggesting that an LSA model may not be efficient in all circumstances.[47] While United Energy has moved over the last regulatory control period from a 100% outsourced business model where all management, planning and network operations functions were externally provided, to bringing some planning functions back within the business, United Energy still outsources a

[42] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 62.

[43] For example, Pinnacle Safety and Training provides services to Rio Tinto's Yarwun aluminium refinery in regional Queensland. http://www.pinnaclesafety.com.au/clients

[44] PwC, *Labour Expenditure Review,* p. 18.

[45] Colmar Brunton, *Ergon Energy Customers' Investment Priorities. Updated Report*, July 2015.

[46] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 60.

[47] PwC, *Labour Expenditure Review,* p. 17.

large majority of its operations activities.[48] United Energy's regulatory proposal for 2016-20 outlines the benefits it has realised through harnessing competitive pressure between external contractors for different areas of its network, highlighting that the 'majority of our capex and opex is exposed to continuous competitive pressure between our two service providers.'[49] We consider that PwC's analysis is therefore flawed.

Finally, we note that United Energy is more of an urban than a rural network business whose outsourcing activities differ greatly from Powercor's LSA model, reducing the relevance of the comparison in this context.

3.3 Conclusion

Ergon's high opex and employee numbers compared to other NEM DNSPs are, to a certain extent, the product of the nature and length of its network. However the AER's benchmarking takes account of the relevant differences between DNSPs including network size, density, asset mix, and yet shows that Ergon is relatively inefficient. This suggests that there are other factors which explain Ergon's poor opex productivity. These factors were the focus of our April Report.

While it has highlighted impediments and difficulties in its response, Ergon would benefit from a more detailed investigation of the LSA arrangements as recommended by the IRP, including the potential benefits that the model could offer. We maintain our view that the lack of an LSA model or a similar arrangement within Ergon's regional depots may be a reason for cost differences between it and Powercor.

[48] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 38.

[49] United Energy, *2016 to 2020 Regulatory Proposal*, April 2015, p. 54.

4 Enterprise bargaining agreements

A supporting document to Ergon's Revised Proposal prepared by PwC, titled 'Labour Expenditure Review' indicated that our April Report did not provide enough detail to support the conclusion that Ergon's EBA conditions are contributing to workforce inflexibility. It also contended that we did not provide sufficient evidence to support our conclusion that a lower level of outsourcing was a factor explaining Ergon's relatively poor productivity.

A detailed, bottom up, quantitative analysis of the differences in employee and contractor productivity and the impact of DNSP management on the practical application of EBA clauses was beyond the scope and timeframe for our April Report. However, the information we presented maintains a compelling argument that these are factors which contribute to the differences between Ergon's and its peers' productivity results.

4.1 Workforce flexibility

PwC stated that the April Report did not provide sufficient explanation of how Ergon's lower level of outsourcing compared to its Victorian peers had contributed to its inefficiency. However, PwC also acknowledged that outsourcing 'may provide greater workforce mobilisation.'[50]

Our April Report highlighted that, while not appropriate in all circumstances, outsourcing is one tool which facilitates workforce flexibility and can enable a business to efficiently respond to a changing external environment.[51] We reported on the significant efficiencies that the Victorian DNSPs have realised through increased outsourcing, and showed that the level of opex outsourcing carried out by Ergon in the base year appeared to be significantly below that carried out by the Victorian DNSPs.

We discussed Energex's efforts to reduce restrictions on contractors, including when they can be used, parity wages and conditions and union notification and consultation. We found that similar provisions exist within other DNSP EBAs, including Ergon's EBA, and we suggested that the vastly different outsourcing levels among Queensland and Victorian DNSPs could be associated with the way in which DNSP management and workforce culture interacts with the EBA clauses, and that the proportion of employees covered by the EBA could affect the application of similar clauses.

Our April Report also noted that there are some restrictions in the Queensland DNSPs' EBAs that are unique and prevent an optimal level of outsourcing. These restrictions relate to the tasks that contractors can carry out on the network, which reduces the efficiency and flexibility that outsourcing offers. We discussed Ergon's own analysis of the impact of these provisions on its efficiency, which it had developed for the purposes of its negotiations with unions.

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[50] PwC, *Labour Expenditure Review,* p. 13.

[51] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 34.

We did not set out to prove that Ergon's lower level of outsourcing than the Victorian DNSPs was responsible for the opex efficiency gap between them, as this would require a comprehensive bottom up analysis of work practices among DNSP employees and contractors in the various states, which was beyond the scope and timeframe for our work. However, our analysis did highlight the important differences between the DNSPs in this area, the uniquely inefficient restrictions on outsourcing in Queensland, and the fact that Ergon is itself seeking to drive efficiency by improving the flexibility around contractors through changes to its EBA. Together, these factors demonstrate that a lower level of outsourcing was a likely contributor to Ergon's relative inefficiency in 2012-13.

PwC stated that our hypothesis around the impact of DNSP management, workforce culture and the number of employees covered by the EBAs was not supported by a quantitative comparison of work management practices.[52] Similar to the discussion on outsourcing, a detailed quantitative analysis of the differences in DNSP union negotiation techniques, workforce culture and management was beyond the scope of our review. While such a detailed study would clearly be useful, we are confident that the information we reviewed during our review is consistent with our conclusions on Ergon's workforce efficiency.

We accept that these are complex, interrelated issues which are difficult to define let alone quantify. In suggesting that these are contributing to Ergon's inefficiency, we have drawn on our collective experience in working with many DNSPs and others in the industry.

Finally, PwC also noted that the proportion of employees employed under an EBA is beyond the control of a business. We agree that it is difficult for a business to control the extent to which employees participate in union collective bargaining and that many factors will influence this, including the political and social history of the sector and individuals involved. However, we maintain our view that, given the vastly different outcomes between DNSPs in some states in terms of EBA participation, that a DNSP's management approach and its impact on workforce culture are likely to bear some responsibility.

We note that the restrictions on contractor use contained within Ergon's EBA increases its need for field staff, who are more likely to be union members and therefore employed under the EBA. In this way, the existence of restrictive provisions, and further generous conditions within EBAs, could contribute to the proportion of staff employed under an EBA.

4.2 Current negotiations

PwC reported on Ergon's progress in negotiating the removal of some of the more restrictive provisions in its EBA, including the Single Person Task and Contractor Switching constraints discussed in our April Report.[53] PwC highlighted that Ergon is constrained in its ability to quickly remove these provisions, noting that '*it is not reasonable to assume that an automatic reversal of this [Single Person Operation] guideline can occur,*' and that '*Ergon Energy has made progress in improving efficiency savings while working together with employees to ensure a continuous safe working environment.*'

[52] PwC, *Labour Expenditure Review*, p. 13-14.

[53] Ibid, p. 15-16.

We acknowledge that it is difficult for DNSPs to make changes to EBA clauses and their related guidelines. However, the focus of our April Report was on the factors driving the efficiency gap between Ergon and its peers in 2012-13, rather than the extent to which inefficiencies can be unwound and corrected.

We note that the PwC report and Ergon's Revised Proposal seem to agree with our conclusion that some of the clauses in Ergon's EBA are a source of inefficiency which can explain the difference in its productivity from other DNSPs, even though the principal clauses appear to be similar among NEM DNSPs.

4.3 Conclusion

The PwC Report *Labour Expenditure Review* did not present any new information to contradict our conclusions in the April Report, and appears to agree with our findings that EBAs, despite having similar principal clauses across the NEM, are a material source of Ergon's inefficiency.

Ergon's efforts to remove the restrictive clauses discussed in our April Report are laudable, and consistent with our findings that these clauses impose higher costs, and confirm our finding that Ergon's base year opex (which was affected by restrictive clauses) was inefficient.

5 SPARQ Infrastructure and ICT costs

Building on findings and recommendations made by the IRP, our April Report highlighted that Ergon's ICT expenditure was a material source of inefficiency.

Ergon's Revised Proposal disputed our comments around the level of ICT outsourcing it had undertaken in the base year, and our finding that it had misinterpreted the IRP's recommendations around outsourcing. Ergon provided a new benchmarking analysis developed by KPMG which shows that, on a per kilometre or per employee basis, Ergon's ICT costs reflect the industry mean.

While we acknowledge that there is some uncertainty around the proportion of ICT costs which were market tested by SPARQ towards the end of the 2010-15 regulatory period, we maintain our view that only very limited outsourcing was undertaken by Ergon in the opex base year, which contributed to its poor efficiency. We also consider that the market testing undertaken by SPARQ on behalf of Ergon does not address the IRP's concerns around a lack of competitive pressure on SPARQ's services, and the associated concerns with the relationship between SPARQ and Ergon.

We consider that the new ICT cost benchmarks presented by KPMG are not reliable indicators of Ergon's ICT cost efficiency and do not affect our April Report conclusions on the relative inefficiency of Ergon's ICT expenditure.

5.1 SPARQ's market testing

Estimate of market tested expenditure

Our April Report discussed the extent to which Ergon and Energex's joint ICT service provider SPARQ was a source of inefficiency. SPARQ provides ICT capex and opex services to the DNSPs, for which its fees are reflected in their opex. Drawing on recommendations made by the IRP regarding the relationship between the DNSPs and SPARQ, we identified that there was material scope for efficiency improvements in the provision of ICT services for Ergon, which explains some of its relatively poor opex productivity. We also concurred with the IRP's concerns that the nature of the relationship between SPARQ and Ergon is problematic due to a lack of competitive pressure applied to SPARQ's services, which is associated with SPARQ's role in managing outsourcing on Ergon's behalf and the number of 'touch points' between the DNSPs and SPARQ.[54]

One of the recommendations made by the IRP was that the DNSPs should seek to test alternative service delivery models for ICT services by issuing market tenders for capital projects and relevant operational ICT services. It considered that 'services currently provided by SPARQ may be delivered more efficiently by external providers.'[55] Our report

[54] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 50.

[55] Independent Review Panel on Network Costs, *Electricity Network Costs Review*, p. 54.

discussed the recent establishment of SPARQ's Panel of Outsourced Project Delivery Partners (Panel) and noted its limited activity to date, with the total value of contracts awarded to Panel providers by the end of 2014 reflecting only 4% of SPARQ's total fees.[56]

Ergon's Revised Proposal stated that this indicator of the proportion of outsourced ICT work is incorrect, and highlighted that 100% of telecommunication services and 37-40% of operational support services will be externally provided in the 2015-20 regulatory control period. Ergon reiterated that overall, 46% of ICT operational services provided by SPARQ will be outsourced over the 2015-20 period.[57] Ergon did not provide any additional information on the proportion of outsourcing of ICT services that occurred in the opex base year.

We note that it would be unusual for a DNSP to internally source telecommunications services. In our experience, operational support services for ICT platforms are also predominately outsourced by DNSPs. It is not unreasonable to expect that 100% of operational support services would be outsourced, which include end-user services, business application services, ICT infrastructure services and a Service Desk.

We acknowledge that our estimate of 4% of ICT services market tested in 2013-14 (the year after the opex base year) was based on a high level calculation of Panel tenders issued between February and December 2014 as a proportion of total SPARQ fees in 2013-14, and does not accurately reflect the total level of ICT outsourcing. While it is clear that there was more than 4% of SPARQ's ICT services outsourced, based on the information provided by Ergon it is not clear what the proportion of market tested ICT services was in the base year or 2013-14.

As with the analysis of labour efficiency, our April Report was predominately concerned with identifying factors contributing to Ergon's inefficiency in the opex base year, building on the IRP's recommendations and the extent to which they had been addressed. Accordingly, forecasts of outsourcing over the 2015-20 regulatory period did not form part of our analysis. However, we also note that in its review of SPARQ's forward capital program for the 2015-20 regulatory period, NOUS noted:

> *(T)he business cases for the two organisations show that most of the projects are planned to be internally delivered within SPARQ with little use of outsourced services. …*
>
> *This is at odds with current trends in ICT services delivery in which the focus is moving strongly towards accessing externally provided services, whether at the platform, application or total service level. This is especially the case with applications that are universal across a range of industries, such as ERP and desktop services.*[58]

Efficiency of outsourcing ICT

Our April Report noted that Energex and Ergon, together with SPARQ, have interpreted the IRP's recommendations on market testing as requiring SPARQ to develop a panel of

[56] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 51.

[57] Ergon, *Capitalised Overheads and ICT Expenditure*, p. 14.

[58] NOUS Group, Ergon Energy's ICT expenditure 2015-20 - Australian Energy Regulator, 9 July 2015, p. 6.

providers, to provide services to it in areas where SPARQ is less cost effective, rather than the DNSPs issuing market tenders to place competitive pressure on SPARQ itself. In relation to the panel arrangement, we stated that:

> *Though this new model of service delivery potentially offers benefits, this action is arguably inconsistent with the IRP recommendation that the DNSPs place pressure on SPARQ through directly outsourcing. These panel arrangements established by SPARQ and the DNSPs are associated with capital works projects, not operational services, and therefore do not actually market-test SPARQ's service provision, as recommended by the IRP.* [59]

Ergon's Revised Proposal stated that the specialist nature of tendered ICT work, and the volume of work, means that SPARQ is in a better position to manage procurement activities than the DNSPs, and SPARQ could extract additional value from outsourced contracts. In our experience ICT procurement expertise is underpinned by resourcing capability rather than technical skills. During procurement activities, ICT specialist expertise should be extracted from within the business. Accordingly, the fact that ICT sourcing specialists are located within SPARQ is unlikely to provide any efficiencies. Ergon has also provided no evidence of efficiencies resulting from the arrangement.

In our April Report, we provided a summary of our experience with shared services ICT models and noted that the incentive arrangements underpinning the agreements between ICT service providers and their clients are critical to successful outcomes.[60] We also noted and concurred with the IRP's concerns around the lack of competitive pressure on SPARQ.[61] We maintain our view that the benefits to be gained from placing competitive pressure on SPARQ by managing ICT procurement from within Ergon would be significant and could outweigh the value generated by SPARQ's specialist technical knowledge.

Ergon's Revised Proposal also stated that outsourcing services separate to the core ICT function leads to integration and architecture fragmentation.[62] This is inconsistent with our experience in ICT services, and we reiterate the findings made by NOUS which suggest that SPARQ's limited outsourcing of ICT services is at odds with current trends in ICT services delivery.

Other issues raised

Ergon's Revised Proposal suggested that the AER (and Deloitte) had incorrectly linked the IRP's commentary on competitive pressure with operational support services.[63] Ergon suggested that in making its recommendations for determining the best mix of internal and

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[59] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 51.

[60] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 50.

[61] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 50, 58.

[62] Ergon, *Capitalised Overheads and ICT Expenditure*, p. 15.

[63] Ergon, *Capitalised Overheads and ICT Expenditure*, p. 15.

external operational services, the IRP did not intend to subject SPARQ to competitive tendering of core work.[64]

We disagree with Ergon's interpretation of the IRP's findings and recommendations, and maintain our view that the concerns expressed by the IRP with the relationship between SPARQ and the Queensland DNSPs extend to both capital and operating expenditure activities. In particular, we note the IRP's specific recommendation that the DNSPs' '*Issue market tenders for the delivery of the relevant operational Information Communication and Technology services.*'[65]

Ergon's Revised Proposal stated 'Deloitte put forward that greater alignment of systems would ensue' if the DNSPs each had their own CIO, which was one of the IRP's recommendations.[66] This comment appears to be a misinterpretation of our April Report, in which we noted that moving the CIO back into the DNSPs would reduce the touchpoints between SPARQ and the DNSPs, as the IRP intended. We stated that:

> *'…commentary suggests that the IRP held significant concerns about the lack of competitive pressure applied to SPARQ's services, which is associated with the number of 'touch points' between the DNSPs and SPARQ. The DNSP OCIO positions were named as a particular point of influence in the relationship, and the IRP recommended these be brought back inside the DNSPs.*

Finally, Ergon's Revised Proposal highlighted the IRP's Recommendation 13, which was for each of the DNSPs to

> *'…reassess its Information Communication and Technology capital expenditure priorities and focus on the prudent capital expenditure required to maintain its core distribution business activities (including regulatory compliance and safety obligations)'*[67]

Ergon suggested that 'this recommendation deals specifically with capital expenditure and has little relevance to 'base year' ICT cost components referred to by Deloitte.'[68] Our April Report noted that SPARQ's fees, which incorporate both opex and capex, are charged to Ergon as a fee, which Ergon incorporates as part of its regulatory allowance for opex. Accordingly, both opex and capex incurred by SPARQ are reflected in Ergon's base year opex, which was the subject of our review.

5.2 ICT Benchmarking

Our April Report incorporated some benchmarking analysis of ICT costs incurred by NEM DNSPs, based on RIN data. The benchmarking analysis identified that Energex and Ergon

[64] Ibid, p. 16.

[65] Independent Review Panel on Network Costs, *Electricity Network Costs Review*, 2013, p. 55.

[66] Ergon, *Capitalised Overheads and ICT Expenditure*, p. 22.

[67] Independent Review Panel on Network Costs, *Electricity Network Costs Review*, 2013, p. 54.

[68] Ergon, *Capitalised Overheads and ICT Expenditure*, p. 22.

had significantly greater ICT costs than their peers on a per customer basis.[69] We also discussed some other NEM ICT opex benchmarks developed by KPMG for Energex, which showed Energex as at or below the mean benchmark cost in the majority of metrics analysed.[70] We concluded that the benchmarks developed by KPMG may not be effective measures of efficiency of ICT opex, and noted that ICT benchmarks which use staff numbers as a normaliser will advantage businesses with relatively high staff numbers.[71]

Following our April Report, Ergon engaged KPMG to conduct ICT benchmarking analysis. KPMG noted that per customer benchmarks do not portray Ergon Energy in 'the most favourable light,' and suggested that this is driven by the size of the customer base. KPMG discussed the impact that low customer density has on Ergon's overall network costs, referring to the AER's own benchmarking, but did not specifically link Ergon's ICT costs to its low customer density.[72]

We maintain our view that ICT costs per customer is the most appropriate high level benchmark to assess DNSP ICT costs. We note that in 2013, Ergon had around 710,000 customers, which reflected the NEM median, and was only 20,000 customers below the NEM average. It is therefore incorrect to imply that an abnormally low number of customers was responsible for Ergon's poor ICT benchmarking performance in the base year. In our experience, customer density does not significantly affect DNSPs' ICT costs, aside from telecommunications and data services which make up a relatively small proportion of total ICT expenditure (for example SCADA costs have some relationship to network topography and geographic spread).

KPMG presented a number of other benchmarks which showed Ergon's ICT costs as either at or below the NEM DNSP mean, including ICT Totex, capex and opex per network kilometre. We consider there is a very limited connection between ICT costs and kilometres of line and therefore these benchmarks are not robust indicators of efficiency. The majority of DNSP ICT costs are driven by the number of users, systems or devices across the business. ICT opex can also be driven by inefficiencies within the systems landscape, including non-rationalised, poorly integrated, highly customised systems. A large proportion of network ICT system capex costs are fixed, and the systems are scaled to meet the business size and requirements, such that network kilometres is not a meaningful ICT cost driver. Benchmarks of ICT costs per employee or per user were also developed, and presented Ergon at around the NEM mean. Our April Report demonstrated that Ergon has significantly more employees than other NEM DNSPs, and accordingly we consider that benchmarks using employee numbers (or proxies for employee numbers, such as ICT users) as a denominator are favourably skewed by Ergon's large employee base. Similarly, benchmarks of ICT costs per device are affected by employee numbers as well as individual business policies around which employees have access to a mobile device. Accordingly, these benchmarks are less reliable indicators of the efficiency of Ergon's ICT expenditure.

[69] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 47.

[70] Energex, Response to information request AER 006, Question 16, attachment: KPMG, *2013 Utilities ICT Benchmarking – Final Report, Energex,* 14 March 2014.

[71] Deloitte Access Economics, *Queensland Distribution Network Service Providers - Opex Performance Analysis*, April 2015, p. 48.

[72] KPMG, Report to the Board of SPARQ Solutions on ICT Expenditure - Forecasts for the Period: 2015 to 2020, 25 June 2015 p. 22.

Finally, we note that while employee numbers are determined by Ergon's management, customer numbers are an exogenous factor, making a more reasonable (and uncontrollable) basis for comparison of ICT costs.

5.3 Conclusion

While we acknowledge that there is some uncertainty around the proportion of ICT costs which were market-tested by SPARQ towards the end of the 2010-15 regulatory period, we maintain our view that limited outsourcing was undertaken by Ergon in the opex base year, which contributed to its inefficiency.

We consider that the new ICT cost benchmarks presented by KPMG are not the most accurate indicators of Ergon's ICT cost efficiency in the base year, because they are linked to Ergon's employee numbers, which were among the highest in the NEM. We also consider there is a very limited connection between ICT costs and customer density or kilometres of line and therefore these benchmarks are not robust indicators of efficiency.

In conclusion, we maintain our view that Ergon's ICT expenditure is a source of inefficiency.

6 Our approach

6.1 The AER's benchmarking

Ergon has suggested that we did not challenge the AER's benchmarking results, using the benchmarking as a starting point for our analysis as an unquestioned fact. Huegin also implied that the starting point for our analysis has meant the conclusions in our April Report were biased.[73]

We are aware that the benchmarking undertaken by the AER has been criticised by DNSPs and is currently the subject of a review by the Australian Competition Tribunal.

We have not reviewed the benchmarking in any detail, and nor have we been asked to. Indeed, from industry benchmarking work we undertook in 2013 and 2014 we are aware of the challenges it poses. Different model specifications can result in some different results. Nevertheless, we consider that given the magnitude of the difference between Ergon's calculated productivity and its peers which was shown by the AER through a number of analysis techniques including economic benchmarking, as well as the IRP's findings, it is reasonable to conclude that over the period considered by the AER that Ergon was less productive than its peers.

6.2 Information we relied upon

Ergon has suggested our April Report was based on:

> *'selective use, heavy reliance upon and incorrect assessment and misconstruing of various EEP reports and Board papers that covered regulated, unregulated and retail businesses undertaken by Ergon Energy Group of Companies and were not themselves used to inform our opex and capex forecasts for 2015-2020.'*[74]

We note that, in its Revised Proposal, Ergon did not provide any specific data to suggest our findings were inaccurate, or raise any specific issues with the data we presented, aside from the $98M savings in base opex (discussed in section 2.1).

Our objective in using the data on EEP savings from the material Ergon provided was to identify whether the opex base year could be considered an efficient basis for Ergon's forecast for the 2015-20 period, by separating the efficiencies achieved before the base year from those achieved afterwards. We also requested and reviewed data on FTE reductions that had been achieved in each year.

We note that Ergon's own forecast of 2015-20 opex incorporated a one-off, 15% reduction to account for reductions in overheads expected over the period as efficiencies were realised. As such, we were seeking to identify how the 15% reduction related to:

- IRP recommendations that had been already achieved, or were yet to be achieved;

[73] Huegin, *AER Benchmarking of Ergon Energy Opex – Huegin Review*, p. 43.

[74] Ergon, *Base Year Opex submission, p. 8*

- the EEP achievements before the end of 2012-13 and the forecast savings.

Ergon indicated that it was not possible to identify which EEP savings were associated with Standard, Alternative Control and Unregulated services in its response to the AER's information request.[75] Accordingly, while we estimated the 2013-14 savings at $98 million based on the EEP information, we did not incorporate these precise estimates in reaching our conclusion on the efficiency of Ergon's base year, for example, in the following graph from our April Report.

Chart 6.1: Ergon Efficiency Improvements ($m, 2014-15)

Source: Ergon, Statement of Corporate Intent 2012-13 and Statement of Corporate Intent 2013-14. Note: The information provided by Ergon did not enable a reliable estimate of the total efficiencies it has incorporated into its 2015-20 Standard Control Services opex forecast. Based on the data provided, it is also unclear as to whether these savings estimates are net of redundancy costs.

As well as the note at the bottom of this graph, our April Report noted that:

> *'The information provided by Ergon did not enable a reliable estimate of the total efficiencies it has incorporated into its 2015-20 SCS opex forecast. Based on the data provided, it is also unclear as to whether these savings estimates are net of redundancy costs.'*

Despite this uncertainty on the precise savings achieved (and forecast) after Ergon's 2012-13 base year, we are confident in our conclusion that the base year did not reflect an efficient level of expenditure, given the magnitude and nature of savings that were forecast to be achieved by Ergon after 2012-13.

[75] Ergon, Response to information request AER ERG 006, Question 4.

Finally, we note that in August 2015, Ergon released its 2014-15 Statement of Corporate Intent, which reported on the efficiency savings it achieved in 2013-14. Ergon reported a saving of $33 million in Standard Control Services opex compared to its 2013-14 budget, but noted that opex had been affected by a higher allocation of overhead resulting from substantial reductions in capex.[76] This suggests that the opex savings were in fact more substantial, after accounting for the higher allocation of overhead.

Ergon also reported that:

> *Efficiency initiatives implemented are producing significant and sustainable savings in major programs such as vegetation management and asset inspection. Other initiatives such as the maintenance framework implementation for substations and lines are also producing savings across Ergon Energy's preventative maintenance programs.*[77]

This supports our conclusion that significant savings were made by Ergon after the opex base year.

[76] Ergon Energy, *Statement of Corporate Intent 2014/15*, p. 19.

[77] Ergon Energy, *Statement of Corporate Intent 2014/15*, p. 19.

Limitation of our work

General use restriction

This Addendum is prepared solely for the use of the Australian Energy Regulator under our contract dated 16 July 2015. This Addendum is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity. The Addendum has been prepared for the purpose of analysing the historical opex of the Queensland DNSPs to inform the AER's decision on their revenues for the 2015-20 regulatory period. You should not refer to or use our name or the advice for any other purpose.

This Addendum should be read in conjunction with our April Report.

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