Revised Regulatory Proposal to AER 2015-19

Review of ActewAGL Distribution's Labour Resourcing and Vegetation Management Practices at 2012/13

Report to

Australian Energy Regulator

from

Energy Market Consulting associates

April 2015

This report has been prepared to provide the Australian Energy Regulator (AER) with an assessment of ActewAGL Distribution's (ActewAGL) Revised Regulatory Proposal 2015-2019.

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Except where specifically noted, this report was prepared based on information provided by AER staff prior to 31 March 2015 and any information provided subsequent to this time may not have been taken into account.

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About EMCa

Energy Market Consulting associates (EMCa) is a niche firm, established in 2002 and specialising in the policy, strategy, implementation and operation of energy markets and related network management, access and regulatory arrangements. EMCa combines senior energy economic and regulatory management consulting experience with the experience of senior managers with engineering/technical backgrounds in the electricity and gas sectors.

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Executive Summary

Purpose of this report

1. The purpose of this report is to provide the AER with technical advice on ActewAGL's labour resourcing and vegetation management practices. The assessment contained in this report is intended to assist the AER in considering causes that may be driving what the AER has identified as poor opex benchmarking performance, as an input to its Final Decision.

2. Our assessment is based on a limited scope review, which does not take into account all factors or all reasonable methods for determining an operating expenditure allowance in accordance with the National Electricity Rules (NER). Our Terms of Reference do not require us to attempt to replicate the AER's review process, to maintain the same coverage of all expenditure criteria as the AER, nor address all aspects of opex. Our advice is based on our knowledge, experience and professional judgment regarding the areas and documentation that we were asked to review.

Scope of work

3. EMCa has been requested to base its review on information presented by the AER in its draft decision, information presented by ActewAGL in its Regulatory Proposal (RP) and Revised Revenue Proposal (RRP), and other relevant information provided by the AER. Our review is intended to identify systemic issues that may reasonably have existed in ActewAGL as at 2012/13, since this represents the 'base year' from which its opex requirements are projected.

4. We have assessed whether there is sufficient evidence of systemic issues and, subsequently, whether we consider that ActewAGL's labour costs and vegetation management systems, processes and practices reasonably reflect those of a prudent and efficient network service provider.

Credentials

5. Appendix A provides the relevant experience of the EMCa personnel engaged in this assessment.

Assessment

6. Based on our review of the information provided,[1] we consider that systemic issues existed in ActewAGL's business in 2012/13. Further, we consider that these systemic issues have resulted in a material level of inefficiency which has been carried forward into its RRP forecast through ActewAGL's use of this inefficient base year.

Labour costs

7. Our assessment supports the systemic issues identified by the AER, as follows:

(i) ***Work practices, processes and systems***: We found evidence that ActewAGL's work practices, processes and systems in 2012/13 were ineffective, based primarily on our review of ActewAGL's own information (including two reports generated by their own consultants). In our experience, ineffective work practices, processes and systems lead to inefficient use of labour in the office and the field. This inefficiency is characterised by duplication of effort in work planning and scheduling, loss of field productivity through ineffective works management and through ineffective data and information management;

(ii) ***Inefficient labour levels****:* We are not convinced that ActewAGL's labour levels were reasonably efficient in 2012/13. ActewAGL has steadily increased its ASL based on assumed future growth scenarios and adopting an internal resourcing strategy. We consider it likely that ActewAGL would have benefited from increased labour flexibility and reduced operating costs if it had outsourced more of its work. We do not accept ActewAGL's claim that its labour contract and the local labour market precluded this strategy. We therefore consider that its strategy is likely to have resulted in a higher level of expenditure than that which would be required by a service provider acting to prudently and efficiently minimise its costs; and

(iii) ***Inefficient labour costs***: We found a lack of compelling evidence to demonstrate that ActewAGL's labour costs in 2012/13 were reflective of an efficient service provider. From our review, this was indicated by the relatively high level of internal resources used and the extent to which work was outsourced on an hourly rate basis for the emergency/urgent clearance of vegetation.

Vegetation management practices

8. We consider that ActewAGL's vegetation management practices and its strategic and tactical responses were, overall, reactive and inadequate in 2012/13. As such, we consider that ActewAGL did not act prudently and efficiently to manage its vegetation costs.

9. In relation to the AER's finding that there is inefficiency indicated by declining vegetation management performance at a time of increasing costs, we consider that the additional

[1] We have reviewed information received as part of ActewAGL's Regulatory Proposal and Revised Regulatory Proposal, in addition to information provided by the AER in its Draft Decision.

information provided by ActewAGL in its RRP provides some basis to discount this finding. We base our finding on the reduction in vegetation-related SAIDI impact from 2010/11 - 2012/13. We consider that the increase in vegetation-related outage incidents noted by the AER can be explained by higher than normal vegetation growth in the period.

10. We found evidence of inefficient vegetation management costs in 2012/13 due to the manual processes between the office and field and the extent of clearance work that was deemed to be urgent, and which was therefore undertaken with a resultant higher cost. It is our view that a service provider acting to efficiently minimise costs would have incurred a lower level of urgent clearance work.

Overall findings

11. On the basis of the assessment above, we consider that there is supporting qualitative evidence for the AER's key findings in relation to the lack of prudence and efficiency in ActewAGL's 2012/13 labour and vegetation management expenditure, except for one finding that we consider should be set aside: namely, that there is inefficiency indicated by the increasing number of vegetation-related supply interruptions.

12. On this basis, we consider that it is likely that ActewAGL's overall level of operational expenditure in 2012/13 was not prudent and efficient.

1 Introduction

1.1 Purpose of this report

13. The purpose of this report is to provide the AER with qualitative technical advice on the labour resourcing and vegetation management practices of ActewAGL. The assessment contained in this report is intended to assist the AER in considering causes that may be driving what the AER has identified as ActewAGL's poor benchmarking performance, in establishing an appropriate operating expenditure allowance as an input to its Final Decision.

14. Our assessment is based on a limited scope review in accordance with the terms of reference. It does not take into account all factors or all reasonable methods for determining an efficient base year for opex or an expenditure allowance in accordance with the National Electricity Rules (NER). We understand that the AER will establish an operating expenditure allowance for ActewAGL based on assessments undertaken by its own staff.

1.2 Scope of requested work

15. The AER issued a Scope of Work to EMCa on 22nd December 2014. We were asked to review whether ActewAGL's labour resourcing practices and vegetation management practices were likely root causes of its poor benchmarking performance, as determined by the AER. We were asked to focus on the expenditure as of 2012/13 (nominated by ActewAGL as the Base Year).

16. The AER considered that ActewAGL's labour costs and vegetation management costs are likely sources of inefficiency due to:

- significantly lower proportions of outsourcing than more efficient peers;
- workplace structure, culture and performance issues that had been identified by its own consultant;

- an enterprise agreement that contains, in some instances, more restrictive provisions on labour engagement and management than the enterprise agreements of ActewAGL's peers;

- primarily engaging contractors on an hourly rate basis for vegetation management rather than on a work volume basis - in contrast to Essential Energy, ActewAGL has not proposed to change its practices; and

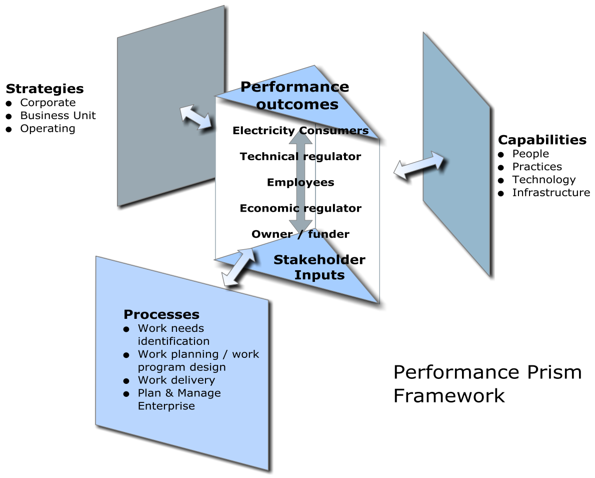
- the lack of a prudent operational risk management approach, resulting in a largely reactive approach to vegetation maintenance.

17. We were asked to base our advice on our knowledge, experience and professional judgment. We were not requested to replicate the AER's overall opex review process, nor to maintain a strict observance of the specific expenditure criteria that the AER is required to consider when determining an overall opex allowance in accordance with the Rules.

18. We proposed an approach based on assessing the "performance prism" in which the performance outcomes of the business are determined by its strategies, processes and capabilities, as shown in Figure 1 below. We have noted and taken into account relevant arguments that ActewAGL has presented in its responses to the AER's benchmarking work.

19. We were initially provided with information that the AER used in its own analysis, including by its consultants and the Technical Advisory Group (TAG), pertaining to ActewAGL's RP 2015-19 and in support of the AER's draft decision. We were also provided with relevant information from ActewAGL's RP pertaining to its Vegetation Management Pass-through application and, subsequently, other relevant information from the AER.

Figure 1: Performance Prism Framework



Source: EMCa, adapted from Performance Prism concept[2]

2 Neely, A.D., Adams, C. and Kennerley, M. (2002), The Performance Prism: The Scorecard for Measuring and Managing Stakeholder Relationships, Financial Times/Prentice Hall, London

20. The AER provided a draft of that report to ActewAGL and ActewAGL provided a written response to that draft. Information contained in ActewAGL's response was utilised in finalising our report.

1.3 Structure of this report

21. In section 2, we present a summary of the operational expenditure that ActewAGL has proposed, with a focus on its 2012/13 base year.

22. In subsequent sections, we present the assessment that supports our findings. This is structured as follows:

- In section 3, we describe our assessment of ActewAGL's labour practices; and
- In section 4, we describe our assessment of ActewAGL's vegetation management practices.

2 Background

2.1 Introduction

23. This section is intended to provide context to the assessments which follow. We set out a summary of ActewAGL's proposed opex expenditure and the AER's opex allocation in its Draft Determination.

2.2 Summary of ActewAGL's proposed opex

24. Table 1 and Figure 2 below compare ActewAGL's proposed opex for the forthcoming RCP with its historical opex.

25. The opex for the 2012/13 base year ($78.7m) is 42% higher than ActewAGL's 2008/09 expenditure ($55.2m), in real terms.[3] The increase is driven by increases to vegetation management (207%), emergency response (193%), network overheads (159%) and maintenance (142%).

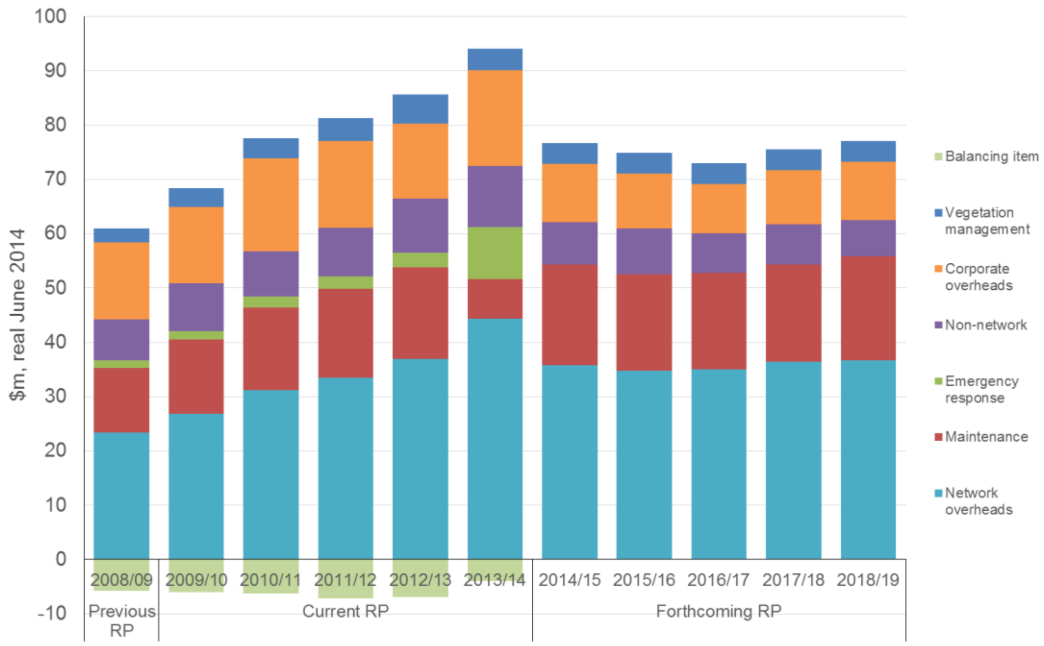
Table 1: Actual and proposed opex by category ($m, real Jun 2014)

	Previous RP	Current RP						Forthcoming RP
Category	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total	Total
Vegetation management	2.6	3.4	3.8	4.2	5.4	4.0	**20.8**	**19.4**
Maintenance	11.9	13.6	15.2	16.4	16.9	7.3	**69.4**	**91.3**
Emergency response	1.4	1.6	2.1	2.3	2.7	9.5	**18.2**	**0.0**
Non-network	7.6	8.7	8.3	9.0	10.0	11.3	**47.3**	**37.5**
Network overheads	23.3	26.9	31.1	33.5	37.0	44.4	**172.9**	**178.7**
Corporate overheads	14.2	14.1	17.1	16.0	13.8	17.6	**78.5**	**50.5**
Balancing item	-5.8	-6.0	-6.3	-7.1	-6.9	-4.0	**-30.4**	**0.0**
TOTAL OPEX	55.2	62.3	71.3	74.2	78.7	90.1	376.7	377.3

Sources: 01ACT - Reset RIN 14-19.XLSX

[3] We use the draft Regulatory Proposal figure for this purpose. However in its Regulatory Proposal, ActewAGL does not show a disaggregation of the components of opex and so we show data from another ActewAGL source for this purpose.

Figure 2: Opex trend by category 2010 – 2020 ($m, real Jun 2014)



Sources: EMCa analysis of AER 00AER to NSPs CA sheet.xlsx

3 Assessment of labour costs

3.1 Introduction

26. In its draft decision, the AER determined that ActewAGL's total labour costs increased by 39% (real) over the 2009-2014 RCP. This was driven by inefficiencies and inflexibilities within its labour force, leading to an increase in the quantity and cost of labour.[4]

27. We have examined relevant aspects of the AER's findings and ActewAGL's Regulatory Proposal and Revised Regulatory Proposal to assess the efficiency or otherwise of ActewAGL's labour costs by considering:

   (i) work practices, processes, and systems;

   (ii) labour levels;

   (iii) labour costs;

   (iv) outsourcing practices; and

   (v) EBA provisions.

28. We consider each of these factors in turn by providing a summary of the relevant issues identified in the AER's Draft Decision, ActewAGL's response to the Draft Decision and, finally, the results of our assessment.

[4] AER ActewAGL draft decision, *Attachment 7: Operating expenditure*, pages 7-77

3.2 Work practices, processes and systems

3.2.1 AER's findings

29. The AER noted that, in parts of ActewAGL's RP, there are suggestions of labour inefficiency in the 2009-14 period.[5]

30. The AER also noted the 2011 Marchment Hill Consulting (MHC) organisational review report, which was directed at addressing ActewAGL's performance issues. In addition to the core recommendation of organisational restructure to align with an "*Asset Management business model,*" MHC identified a number of critical business improvement initiatives that could be undertaken.

31. The AER was critical of the lack of a target for tangible financial benefits arising from ActewAGL's program in response to the MHC review and concluded that it is "*unlikely the restructure of management could have addressed all of the identified organisational problems by 2012-13".*[6]

3.2.2 ActewAGL's response

32. ActewAGL argued that:[7]

  (i) it had 'rolled out' most of the 34 improvement initiatives[8] during 2011;

  (ii) whilst any material short term efficiencies were offset by the implementation costs, "*any ongoing productivity improvements will contribute to the achievement of the implicit productivity growth rate factored into ActewAGL Distribution's operating expenditure forecast*";

  (iii) it is consistent with the EBSS to achieve ongoing efficiencies without specifying financial savings goals to the AER; and

  (iv) the AER did not provide sufficient evidence that ActewAGL Distribution's labour costs in the base year are inefficient.

3.2.3 EMCa's assessment

33. We have reviewed the MHC report and other ActewAGL documents. We found evidence that we consider to represent a source of systemic issues that result in labour inefficiency.

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[5] ActewAGL, *Regulatory proposal*, 2014, page 128

[6] AER, ActewAGL draft decision, *Attachment 7: Operating Expenditure,* 2014, pages 216-217

[7] ActewAGL, Revised Regulatory proposal 2015-19, *Attachment C11,* page 21

[8] *Ibid,* Table 1.1

MHC Organisational Review of ActewAGL Networks

34. MHC's 2011 review was commissioned by ActewAGL. The review identified significant issues with key operating model elements. A summary of MHC's organisational review findings is presented in Table 2 below:

[redacted]

35. The description of key issues included in MHC's report suggest to us a set of organisational problems which collectively represent a significant source of organisational inefficiency. Examples include:

- informal and formal information flows are lacking between individuals and teams;
- duplication and multiple hand-offs;
- lack of process compliance [and] reluctance to embrace new practices;
- lack of system integration; and
- user dissatisfaction with tools, systems and data integrity.

36. We note that neither MHC nor ActewAGL nominated (or published) a target for tangible benefits that will result from an organisational 'transformation'. We consider that the collective operational efficiency benefit that could be realised by addressing the identified issues is material. Moreover, we consider that:

(i) The identified issues extend throughout the entire value chain (i.e., from the way ActewAGL plans its work, through to delivery and how it monitors and controls its performance, both operationally and strategically). MHC observed that: "*improvements are needed to all elements of ActewAGL's Operating Model –*

changing the organisational structure alone will not address all of the issues sustainably".[9]

(ii) As indicated in Table 2, above, the identified issues are not trivial – the rating of five out of 6 elements by MHC as 'needs fixing' indicates that substantive remedial work by ActewAGL is required; and

(iii) EMCa personnel have been involved in similar organisational and operating model reviews. In this respect, our advice has extended to both the forecasting of tangible benefits and proposed methods of delivery. It is our view that prospective operational efficiency gains from such 'transformational change' projects can be identified, substantiated and achieved (with sustained organisational focus).

37. In its response to the AER's draft decision, ActewAGL advised that it had 'rolled-out' the majority of its 34 initiatives in response to the 26 issues identified by MHC in 2011. The time period indicated is therefore only 6-9 months. ActewAGL confirms that, whilst there were net costs involved, these costs were offset by the efficiencies already gained, with additional benefits to be delivered during the 2009-14 RCP.[10]

38. We were not able to clearly ascertain which of the initiatives were rolled-out in 2011 and/or prior to 2012/13.[11] In our experience, we would expect a typical network business to undertake 3-5 years of intensive effort to extract the full net benefits from such a transformational change program. Whilst we accept that some of the initiatives[12] could have been implemented in twelve months or less, the substantial net benefits are typically achieved over a longer time period:

(i) As noted above, the MHC report indicated that "*changing the organisational structure alone will not address all of the issues sustainably*";

(ii) Our direct experience is that:

- behavioural change programs take between 3-5 years of consistent effort and investment of management time and resources to create a significant, sustainable lift in employee engagement and constructive behaviours;

- creating a meaningful and sustained lift in organisational human resource capability is a multi-year undertaking;

- developing and implementing end-to-end process improvement is likewise a time and resource consuming endeavour - and with strong leadership can take years to pay back the investment;

- business systems and technology change programs should be progressed in parallel with process change to ensure that the greatest benefits from both programs are realised. Often this can lead to delays to one or more

[9] Marchment Hill Consulting*, Organisational Review ActewAGL Networks, Version: Final, 2011, Section 4*

[10] ActewAGL, *Attachment C11, Table 1.1*, pages 19-21

[11] Other than the Winning Teams program, which ActewAGL advised was started in Nov 2012 and completed in December 2014 (*per 20141014_FINAL_AER Info Request ACTEW 046.docx*)

[12] Organisational restructuring, performance management frameworks, and 'Winning Team Behaviours'

initiatives to ensure alignment of benefits. The scale of business system and technology that ActewAGL has embarked upon is complex and extensive and will likely take several years to design, implement and embed; and

- whilst the initiatives nominated for improving ActewAGL's delivery model are positioned as largely changes to accountability and organisational structure (and should therefore be implemented relatively quickly), the associated changes required to achieve meaningful benefits are likely to require changes to its skill mix, processes, systems and reporting - all of which typically take several years of sustained effort.

39. Furthermore, we would expect to see increased costs evident in the first one to three years (i.e., for restructuring, systems improvements, process redesign, etc.) that are not fully offset by efficiency gains in the short term.[13]

40. Our experience is consistent with MHC's advice,[14] whereby:

[redacted]

41. In its RRP and supporting documents, ActewAGL has not provided evidence to quantify the efficiency gains to be derived from its improvement initiatives with verified sources of data (preferably supported by an independent review).

42. Specifically, ActewAGL had the opportunity to provide evidence to the AER to demonstrate the significant efficiency gains achieved from any improvement initiatives implemented, and that might offset implementation costs to such an extent that the 2012/13 Base Year might be considered as efficient. In our view, it has failed to provide such evidence.

Asset Management Planning

43. ActewAGL's 2014 version of its Asset Management Strategy[15] makes several references to the work required to achieve its strategic objective of compliance with BSI PAS 55:2008 and ISO 55000.[16] We consider that the proposed improvement requirements are extensive, as indicated by:

(i) Cross-references in the MHC report, such as the need for more focus on Asset Management (through the restructure), lack of system integration, user dissatisfaction with systems and data integrity, and MHC's observation that [redacted]

[13] This is particularly true of IT-based investments - ActewAGL embarked in 2012 on the Operational Systems Replacement Program (OSRP) in 2012 (ActewAGL, *Subsequent Regulatory Proposal* 2015-19, p.190)

[14] MHC report, *section 8*

[15] Attachment D1: Asset Management Strategy version 2.11, 23 May 2014

[16] *Ibid, section 5.2*

[redacted]

(ii) Cross-references in the SKM report (discussed below) that were identified in 2011/12;

(iii) Our view of inadequacies in ActewAGL's Vegetation Management approach (discussed in Section 4), which essentially constitutes a case study regarding opportunities for improvement in ActewAGL's asset management; and

(iv) The aspects of ActewAGL's Asset Management System still to be developed, as indicated in its 2014 Asset Management Strategy document (per the Asset Management Framework diagram).[18]

44. Collectively, this information strongly suggests that the asset management capability, processes, systems and practices in effect at ActewAGL during the 2012/13 base year were sub-optimal. Accordingly, we consider it reasonable to infer that expenditure decisions and practices associated with this sub-optimal asset management capability are likely to be inefficient.

Resource Planning for ActewAGL's program of work FY 2012/13

45. The following extract from SKM's report points to a systemic issue with projects and program delivery:[19]

> "*However, the business does not have a consolidated works management system making resource scheduling and forecasting on an ongoing basis, difficult*."[20]

46. The lack of a consolidated works management system is an inhibitor to operational efficiency which, in our experience, is likely to lead to:

- duplication of effort in head office and in the field for work planning and scheduling;
- loss of productivity in the field through sub-optimal field workforce planning; and
- inefficient office-to-field and field-to-office information flows.

47. We consider that SKM's review was further evidence of the issues identified by MHC in this area, and that are likely to have been systemic in 2012/13.

Summary

48. Based on our review of ActewAGL's own information, including two reports generated by its consultants, we found evidence of systemic issues in ActewAGL's work practices, processes and systems that existed in 2012/13. Given the extent of these issues, we consider that they have translated into material operational cost inefficiency.

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[17] MHC Report, *sections 4 and 6.1*

[18] *Ibid, sections 6.3, 6.4, 7, 10,* noting that Section 10 refers to an unsighted Asset Management Improvement Plan

[19] SKM, Resource Planning to deliver ActewAGL's Program of Works for the FY 2012/13, 27 March 2012, page 5

[20] The analysis excludes consideration of major projects as they are predominantly outsourced

3.3 Inefficient labour levels

3.3.1 AER's findings

49. The AER's benchmarking studies compared ActewAGL's average staffing levels (ASL) per 100,000 customers with its peer DNSPs. The AER observed that ActewAGL's ASL was 17% higher than the NEM average for the 2008/09 – 2012/13 period and 67% higher than the Victorian DNSPs. This led the AER to conclude that ActewAGL's ASL was excessive and a source of inefficiency.[21]

3.3.2 ActewAGL's response

50. ActewAGL presents four issues with the AER's analysis:[22]

(i) RIN data –

- data comparability - the AER's data is not comparable across DNSPs,[23] with ActewAGL being disadvantaged in the comparison because it outsources less of its core activities than NSW and Victorian DNSPs; and
- data quality – the data provided by CitiPower and Powercor had the qualification of "*little or no data available"*, indicating uncertainty as to the quality of RIN data used for comparison.

(ii) Normalisation of ASL by customer numbers – the quantity of labour hired by a DNSP is not directly dependent on customer numbers, but on the quantity of work required;

(iii) AER's Table A.1[24] – ActewAGL's analysis of labour cost per ASL for individual DNSPs[25] shows that ActewAGL is within the range of Victorian DNSPs, with the exception of AusNet services which "*appears to be an outlier from the remaining businesses"; and*

(iv) Larger networks are better able to access economies of scale and therefore to appear more efficient whereas ActewAGL is not able to access economies of scale, thus disadvantaging it in any comparison with peer DNSPs.

3.3.3 EMCa's assessment

Complementing the benchmarking analysis

51. We have reviewed information provided by the AER with the aim of seeking evidence to support ActewAGL's claim that, in its business context, its labour levels are prudent.

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[21] CONFIDENTIAL APPENDIX - Draft decision ActewAGL distribution determination - Attachment 7 - Opex - Appendix - November 2014.

[22] ActewAGL, *Revised Regulatory Proposal 2015-19, Attachment C11,* pages 6-9

[23] As it does not account for differences in outsourcing practices based on potential differences in interpreting the inclusion of contracts for the provision of labour from RIN data

[24] AER, *Draft decision, Attachment 7: Operating expenditure*, page 188

[25] ActewAGL, *Attachment C11, Figure 1.1,* p. 10

52. We consider that 'good' management practice includes determination of the optimum staffing level and skills mix required to meet its objectives and obligations prudently and efficiently, while being cognisant of its unique environmental context and internal strengths and weaknesses. Accordingly, staffing levels (when considered in isolation) do not necessarily represent an indicator of an efficient or inefficient business.

53. For example, we would expect to see evidence of a strategic review of its labour practices to identify the economies of scale that ActewAGL is able to achieve, coupled with identified options to pursue practices that result in lower costs without a material increase in risk.

54. We have considered ActewAGL's workforce planning by assessing its workforce plan and resource plan for its programs of work.

Workforce Plan

55. In its June 2010 Workforce Plan,[26] ActewAGL outlined its key assumptions as follows:

[redacted]

56. ActewAGL's strategic response to these assumptions, which does not appear to have been retested since 2010, was designed to ensure [redacted] the attraction, retention and development of staff.[29] [redacted]

57. We consider that the Workforce Plan revealed a number of issues that, when considered together, indicate systemic issues that have led to inefficient costs:

(i) The environmental scan does not reflect the paradigm shift across the industry that was occurring at that time. Among other things, there was a growing concern regarding the contribution of electricity network costs to rising electricity prices from 2010 onwards (if not earlier). There were state and federal inquiries, and repeated and increasing calls from politicians, customers and customer representative groups to reduce the impact of network expenditure on electricity affordability.[30] We consider that, if ActewAGL had refreshed its strategy comprehensively in 2010 and/or in 2011 and 2012, it would have recognised in its resource planning that:

[26] We have been provided with only the 2010 Workforce Plans (original and a 'refresh)

[27] All comprising attraction, retention and development of staff

[28] Two scenarios are considered: minor change and major change. As ActewAGL suggests in its RRP, the Workforce plan should be mindful of the projected work required (among other things), whereas the number of customers is but one driver of the work forecast

[29] ActewAGL, *Workforce Plan 2010 – Refresh*, page 14

[30] For example, the NSW Government's *NSW Electricity Network and Prices Inquiry*, Dec 2010

- labour cost reductions were required – ActewAGL recognised in 2010 that its labour costs were above *"what regulators are comfortable with"* and that they would need to *"contain these costs within the next three years";*[31] and

- other utilities were embarking on aggressive opex reduction programs - this would indicate the need to review and refresh its own resource planning assumptions.

It is our view that, acting prudently, executive management and/or the Board should have considered reasonable alternatives to the 'internal labour strategy' adopted by ActewAGL. If ActewAGL's objective was to reduce costs, it is apparent that it did not succeed (or was not succeeding). We consider that this should have prompted a review of its 'internal labour strategy';

(ii) The Workforce Plan considers only two scenarios – both of them growth scenarios - with one being the current upward trend and the second a much higher growth rate over the long term. If the Plan had been refreshed in 2011 and 2012, we believe that prudent executive management and/or Board consideration of alternative scenarios (such as lower long term growth, together with the changing industry context described above), should have led to a resourcing strategy that was not based primarily upon steadily growing staff numbers to meet an assumption of steadily growing workload;

(iii) The demand forecast is based on an underlying assumption (without justification or reference to where the assumption is supported by analysis) that work will increase inexorably. We consider this to be indicative of a bias to increase the ASL;

(iv) ActewAGL's supply strategy is narrow, in that it appears to be based solely on an internal growth strategy without any reference to consideration of the option of increasing external supply. The Workforce Plan that we reviewed [32] is an internal workforce plan. It does not consider strategic options such as market based supply models, nor does it draw from other documents that consider them.

(v) There is no evidence that ActewAGL considered a complementary delivery strategy[33] in formulating its Workforce Plan, nor does it reference that such work was developed and/or implemented elsewhere. We therefore assume that this analysis was not undertaken by ActewAGL. We contend that prudent executive management and/or Board consideration of reasonable alternatives would have resulted in the analysis of a more 'balanced' approach to internal and external resourcing.[34] Further, we consider that, if adopted and successfully deployed, such a strategy would have resulted in lower levels of highly paid staff with the appropriate skills at a lower total

[31] *Ibid, p11*

[32] We were provided with ActewAGL's 2010 Workforce Plans by the AER which, in turn, had requested ActewAGL to provide it with all relevant workforce planning documentation for the 20109-14 period

[33] Which would typically reside in a separate document, such as the 2011 SKM report, but there is no reference to a 2010 equivalent or to strategic implications for the Workforce Plan

[34] That a number of its peers were pursuing or considering (e.g., Jemena, Energex, and Powercor – as discussed further in section 3.4)

cost.[35] This analysis would necessarily have tested the purported limitations on securing additional cost-effective external labour. If found to be unworkable, then the internal resourcing strategy would have been supported; and

(vi) There is no reference to affordability of the proposed strategy. There is one reference in support of ActewAGL's corporate objective to enhance operational efficiency,[36] among other things, but no other reference to the cost of the program or to the net benefit that it expected to gain from the strategy (other than meeting the supply-demand gap scenarios). This is discussed in more detail in section 3.4.

Resource Planning for ActewAGL program of work 2012/13

58. We understand that the purpose of the 2011 SKM report was to identify the supply/demand gap facing ActewAGL in delivering its proposed 2012/13 Program of Work.[37] [redacted]

[redacted]

59. SKM did not make any recommendations about strategies to increase access to resources without increasing the number of staff.[39]

60. As discussed above, we did not see evidence that ActewAGL adequately considered the option to increase its level of outsourcing rather than its ASL. We consider this to be further evidence of a systemic issue in workforce planning.

61. We further note that, in its response to the AER's draft determination, ActewAGL advised that it was, and remains, unable to pursue an outsourcing strategy due to its claimed unique circumstances. We discuss this further in section 3.4.

62. We expect that a prudent and efficient service provider is likely to proactively identify and analyse options and provide documented, compelling justification for the chosen option. ActewAGL has not provided evidence to support the option it selected to achieve its delivery, cost and operational efficiency objectives.

Lack of scale economies

63. ActewAGL argues in its response that, as a relatively small DNSP, it requires relatively more personnel to undertake activities compared to a larger organisation. We consider that the strategy selected by ActewAGL promotes the option of seeking additional personnel. It is our view that ActewAGL should have pursued some form of strategic

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[35] Increased outsourcing may require some additional staff in contract management (or the equivalent), but overall should allow for a lower ASL and lower cost of delivery (i.e., higher labour efficiency)

[36] *Ibid, page 9*

[37] [redacted]

[38] SKM, *Resource Planning for ActewAGL's PoW for FY 2012/13*, 2011, page 5

[39] Nor did it explicitly recommend increasing internal staff numbers – we infer this is the case because it was not explicitly in scope for them to do so

sourcing to access greater economies of scale, potentially with large suppliers,[40] such as in conjunction with NSW DNSPs.

Summary

64. In our view, staffing levels should be determined as part of a comprehensive strategic resourcing analysis. ActewAGL's resourcing strategy seems to be based only on growth scenarios, meeting the labour demand only by increasing staff levels. Staff numbers are relatively expensive to attract, retain, replace and reduce.

65. We expected the prospect of lower growth scenarios, coupled with options to reduce operational cost and risk, to have been fully explored by ActewAGL, including the consideration of alternatives to a business-as-usual steady increase in average staffing levels. For example, ActewAGL provided no evidence that it explored an alternative resource strategy such as to increase the outsourcing of work with the intent to increase labour flexibility and reduce costs. ActewAGL did provide information to demonstrate that both its labour agreement and the contracting environment reduced its prospects of achieving a higher level of outsourcing and reduced costs. However, in the absence of evidence that the option was not achievable, we remain unconvinced that ActewAGL's ASL was optimal and contend that it was likely high given the (relatively) high and fixed costs associated with its internal resourcing strategy.

3.4 Inefficient labour costs

3.4.1 AER's findings

66. The AER found ActewAGL's labour costs to be higher than other NEM DNSPs on both a labour cost per customer and labour cost per ASL basis:[41]

(i) total real labour costs increased by 16% from 20011-2014 and in 2012/13 were approximately 10% higher than the NEM DNSP average; and

(ii) the total number of employees grew by 12% from 2011-2014, and the number of employees per customer was 21% higher than the NEM DNSP average in 2012/13.

67. This occurred despite ActewAGL recognising in 2010 that its labour costs were above "*what regulators are comfortable with"* and that they would need to *"contain these costs within the next three years".*[42]

68. Prior to the AER's draft decision, the reported reasons given by ActewAGL for the apparently excessive labour costs included:[43]

(i) difficulty in recruiting and retaining skilled workers;

[40] Of full maintenance services and for the supply of material, plant and equipment

[41] CONFIDENTIAL APPENDIX - Draft decision ActewAGL distribution determination - Attachment 7 - Opex - Appendix - November 2014, pages 11-12

[42] *Ibid, page 11*

[43] *Ibid, pages 14-15*

(ii) challenging negotiations with unions; and

(iii) short term costs associated with its business restructure and cultural change program (implementation and redundancies).

69. The AER formed the view that ActewAGL's issues primarily stemmed from generous EBA provisions, inefficiency within the workforce and the inability to outsource key work.

3.4.2 ActewAGL's response

70. In its Revised Regulatory Proposal, ActewAGL challenged the AER's findings on the following grounds:[44]

(i) data comparability issues – particularly for CitiPower and Powercor;

(ii) when United Energy is excluded[45] (as an outlier), ActewAGL's average ASL cost is only 4% higher than the Victorian service providers;

(iii) the AER's analysis[46] is misleading – ActewAGL's analysis shows its average labour costs to be within the range of Victorian DNSPs if AusNet's result is excluded;

(iv) the benchmarking comparison does not consider any differences between the DNSPs, such as economies of scale;

(v) the benchmarking analysis considers that there is a linear relationship between labour cost and ASL – ActewAGL claims that this is clearly not the case given that United Energy outsources most of its labour (and hence labour costs); and

(vi) past AER decisions have accepted that labour costs are higher in the ACT and has allowed a higher labour cost escalation factor than the other businesses. Furthermore, annual ACT wage growth was significantly higher than determined by the AER and higher than in other jurisdictions.

3.4.3 EMCa's assessment

71. We have considered each of the potential drivers of high ActewAGL ASL costs as postulated by the AER, cognisant of the information provided in ActewAGL's Revised Regulatory Proposal.

Consideration of EBA provisions

72. The AER undertook an analysis of the EBA provisions of the NEM DNSPs and concluded that several factors have likely contributed to conditions in the ActewAGL EBA which are more costly than DNSPs in other jurisdictions:[47]

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[44] ActewAGL, *Revised Regulatory Proposal 2015-19, Attachment C11,* pages 9-12

[45] United Energy outsource virtually all of the work, distorting ASL comparisons

[46] Reported in Table A.1 of CONFIDENTIAL APPENDIX - Draft decision ActewAGL distribution determination - Attachment 7 - Opex - Appendix - November 2014

[47] *Ibid,* pages 26-28

(i) more than 75% of ActewAGL's workforce are employed under EBAs, which is significantly higher than the Victorian DNSPs, but comparable with Queensland and NSW DNSPs;

(ii) ActewAGL engaged in lengthy and difficult negotiations with unions and considers itself to be in a less favourable bargaining position than its peers due to its position as the only utility in the ACT and the difficulty it faces in attracting skilled workers; and

(iii) the EBA leads to expensive redundancy costs and includes redundancy conditions that may impact on management's ability to efficiently and prudently manage its labour costs.

73. ActewAGL (through ABLA) presented the findings of its comparison of other DNSPs with its own EBA and submits (in part) that:[48]

(i) the ActewAGL EBA is equivalent to, and in many respects demonstrably more flexible than, other examples in the industry in relation to outsourcing, redundancy and business change; and

(ii) ActewAGL does not stand out from its peers regarding salaries regulated by the ActewAGL EBA.

74. We have reviewed the new information provided by ActewAGL in relation to its comparative analysis of the DNSPs' EBA provisions. In our view:

(i) ActewAGL's EBA contains hurdles to effective workforce planning and management;

(ii) ActewAGL's industrial relations issues are not unique to ActewAGL, as many of the DNSPs also have EBAs with similar restrictions;

(iii) a number of the DNSPs, including ActewAGL,[49] have demonstrated that the hurdles identified are not insurmountable;

(iv) unlike other DNSPs who have successfully pursued a strategy of outsourcing a greater portion of their work, ActewAGL does not appear to have vigorously pursued a similar strategy. As discussed above, we have not seen compelling evidence that ActewAGL thoroughly tested the assumption that a greater proportion of outsourcing would result in lower overall operational costs, nor that ActewAGL explored all possible avenues to overcome the relevant EBA restrictions;

(v) ActewAGL's redundancy payment terms resulted in high payments, particularly in 2011/12, and contributed $0.6m to ActewAGL's 2012/13 labour costs.

75. Considered at a business level, we would expect redundancy payments to have been made on the basis of accruing future net benefits (i.e., it is a self-funding initiative derived from not replacing the subject staff). We are not aware of such a business case. Even if

[48] Australian Business Lawyers & Advisors, *Review and comparison of ActewAGL's provisions against other Electricity Network Service Providers, Jan 2015,* pages 4-5

[49] For example, a portion of capital and opex work is outsourced

one exists, based on the ensuing steady increase in the ASL and staff costs, it does not appear that any redundancy costs were offset by savings over the ensuing years.

Inefficiency within the workforce

76. We found evidence of systemic issues that have resulted in inefficiency in ActewAGL's work practices, processes and systems as detailed in section 3.2.

Inability to outsource key work

77. In citing ActewAGL's low proportion of outsourcing 'key work' compared to its peers as an indication of labour inefficiency, the AER assumed that:

   (i) ActewAGL's EBA provisions have in some way restricted pursuit of an outsourcing strategy to the extent demonstrated by some of its peer DNSPs; and

   (ii) it should be possible for ActewAGL to achieve lower overall labour costs through an increased level of outsourcing.

78. ActewAGL countered as follows:[50]

   (i) The outsourcing provisions in its EBA are no more restrictive than those of its peers and in many cases are less restrictive;

   (ii) The AER did not provide evidence to support its assertion that higher levels of outsourcing deliver more efficient expenditure; and

   (iii) As a prudent operator, ActewAGL makes decisions on sourcing of labour based on its own circumstances and that it has the incentive under the EBSS to ensure this.

   (iv) It provides via a separate report[51] to advise that:

   - no particular contracting strategy is inherently inefficient;
   - there is an inherently weaker case for outsourcing a large proportion of work in the [ActewAGL] network than in more densely populated areas; and
   - the contracting environment is very different between the gas network and electrical network.[52]

79. ActewAGL therefore contends that the AER has no basis for linking its outsourcing strategy to excessively high labour costs and therefore to the opex reduction that it determined in the draft decision.

80. It is our view that a resourcing strategy based on more outsourcing, rather than ASL growth, would have provided ActewAGL with more resource (and cost) flexibility. In turn, this would be more likely to lead to more efficient costs overall. We note that:

[50] ActewAGL, *Revised Regulatory Proposal, 2015-19,* pages 13-16

[51] Attachment C2, *Advisian 2015, Opex cost drivers: ActewAGL Distribution Electricity (ACT),* January, pages 97-98

[52] Advisian is responding to an observation by the AER that ActewAGL's gas business uses a virtually full outsourcing model

(i) an outsourcing strategy was deployed by other DNSPs prior to, or within, the same time period;

(ii) the various utilities all reported success (to varying degrees) in reducing overall costs through outsourcing, as discussed below; and

(iii) DNSPs throughout Australia have recognised the benefits of outsourcing through competitive tension, the transfer of good practices, and collaborative approaches to innovation to reduce total cost and are progressively adopting more outsourcing as a core works delivery strategy.

81. In relation to ActewAGL's selection of its resourcing strategy, we have only seen Advisian's qualitative analysis undertaken in 2014, which concluded that:

> "*the question of whether network Opex or Capex tasks are carried out by internal or external labour is largely irrelevant to the efficiency of the outcome.*"[53]

82. Our interpretation of this statement by Advisian is that it reflects the experience and/or personal views of the authors. The statement is not supported by evidence from ActewAGL. It is contrary to our experience and belies the claims from several DNSPs in public documents that they have successfully pursued outsourcing strategies.

83. A prudent network operator will make its business decisions in the context of its own business objectives, environmental context and strengths and weaknesses. As part of our assessment, we look for evidence that the business has taken the prudent steps necessary to determine its resourcing and/or delivery strategies. In part, we would expect a prudent and efficient service provider to:

(i) identify opportunities available through varying levels of outsourcing to reduce its costs (while minimising inefficient risk transfer);

(ii) explore various outsourcing models with potential suppliers, including performance based contracts;

(iii) seek approval for its resourcing strategy at the Board level (via a business case or similar document);

(iv) monitor the success of the strategy and make changes as necessary; and

(v) re-test the strategy regularly, particularly in the face of external pressure to reduce costs.

84. We would also expect to see some discussion about outsourcing in its Workforce Plan and in its 2012/13 Program of Work Resource Plan.

85. We have considered ActewAGL's claims, mindful of the particular circumstances facing ActewAGL:

[53] Attachment C2, Advisian, 2015, *Opex cost drivers: ActewAGL Distribution Electricity (ACT), January, page 96*

(i) *"As a prudent operator, ActewAGL makes decisions on sourcing labour based on its individual circumstances".*[54] As discussed above, we have not seen evidence of the analysis that we would expect a prudent and efficient service provider to undertake as a basis for its decisions;

(ii) *"Its EBSS has had appropriate incentives in place to ensure efficient operation".*[55] In our view, the existence of an incentive does not necessarily translate to efficient performance and does not over-ride evidence of inefficient practices or outcomes;

(iii) "*The existence of different levels of outsourcing in various DNSPs does not determine the efficiency of one model or structure over another".*[56] The AER pointed to the strong correlation between superior benchmarking performance and the high level of outsourcing reported by various DNSPs. Our view is that the decision of various DNSPs to outsource and to share resources for a significant proportion of work is supported by evidence of significant operational efficiencies. We identified the following examples from publicly available information:[57]

- **Jemena: 17% saving** – "*By 2010, JEN will have achieved operating efficiencies totalling $54.4 million or 16.9 per cent of the ESC's opex allowance*," and "*The outsourced contracts provide JAM with the flexibility to increase and decrease its requirements based on its work program. They also provide JEN access to a larger and more flexible workforce than it could prudently maintain on a standalone basis*."[58]

- **Energex: 12% saving** – "*As part of an ongoing, long-term strategy to reduce costs whilst maintaining legislative and safety obligations, Energex recently changed to a more collaborative contracting model with its suppliers. The new model enables the supplier to more efficiently manage the utilisation of their resources and make informed decisions in their area of expertise, resulting in increased efficiencies and savings for Energex. Energex's role has transitioned from managing and dispatching the program to monitoring compliance with required standards and key performance indicators. As a result, Energex has identified reduction in vegetation management contract costs of $7.1 million (2012-13 direct dollars) from 2014-15 onwards (-12% per annum).*"[59]

- **Powercor: 21% saving** – "*KPMG found that, if Powercor Australia had delivered its nominated services for the year ended 31 December 2008 on a standalone basis, its efficient cost of service delivery would have been*

[54] ActewAGL, Revised Regulatory proposal, Attachment C11, page 15

[55] *Ibid*

[56] *Ibid*

[57] Sourced from current Regulatory Proposals on the AER's website

[58] Jemena, Regulatory Proposal, 2009, p10, p. 121; JEN – *Jemena*, JAM - *Jemena Asset Management*

[59] Energex, Regulatory Proposal, 2015, p. 73, p153

$16.930 million (21 percent)($2008) more than the costs it actually incurred for these services (excluding related party margins).”[60]

- **CitiPower: 45% saving** – “*KPMG found that if CitiPower had delivered its nominated services for the year ended 31 December 2008 on a standalone basis, its efficient cost of service delivery would have been $19.049 million (45 per cent)($2008) more than the costs exclusive of margins it actually incurred for these services*.” [61]

(iv) The existence of related party contracts[62] is referred to by ActewAGL in the context of efficiency gains. Of note, Jemena Asset Management manages ActewAGL's gas business network as well as Jemena's electrical distribution assets. Whilst we acknowledge the potential concerns that can arise over related party issues, it has been our experience that significant benefits can accrue to the DNSP where the contract is well-managed.

86. Simply moving to an outsourcing arrangement is no guarantee of reduced costs and risks. Cognisant of the key success factors in strategic outsourcing, we believe that ActewAGL should have considered the prospective opportunity to:

(i) Partner with NNSW DNSPs (particularly Essential Energy) to explore strategic outsourcing arrangements (i.e., to increase its scale from the ‘demand’ side);

(ii) Explore collaborative, performance based out-sourcing arrangements with large suppliers to draw on scale economies from the supply side;

(iii) Explore ways to overcome perceived inefficiencies using contract labour, including models that enable supplier(s) to more efficiently manage utilisation of their resources. Typically, supplier productivity can be diminished (and costs therefore increased) where:

- the client packages the work, rather than the supplier;
- the client and supplier have different or mis-aligned approaches for delivering/receiving and scheduling work packages; and
- the client suddenly changes priorities and/or required outcomes, requiring contractors to reschedule resources.[63]

Efficiency of ActewAGL's 2012/13 labour costs

87. We find that:

(i) many of the DNSPs in the NEM, including ActewAGL, have restrictions of some form on the use of contractors;

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[60] Powercor Regulatory Proposal, 2009, page 365

[61] CitiPower Regulatory Proposal, 2009, page 76

[62] Jemena, CitiPower and Powercor all outsource their work to related parties

[63] In our experience, this is a key success factor to ensuring client-supplier inefficiencies are avoided (e.g., from duplicate or conflicting effort; double handling of information; changing priorities, etc.)

(ii) ActewAGL's work practices, systems and processes were inefficient in 2012/13, contributing to higher than necessary labour costs; and

(iii) ActewAGL has not demonstrated conclusively that outsourcing was not viable.

88. We also find that ActewAGL:

(i) followed a predominantly internal resourcing strategy, despite the admitted difficulty in recruiting and retaining quality staff and rather than sharing that risk with competent external providers (whose expertise includes effective resource management), with the likely consequence of pushing up overall staff costs through salary and wage provisions;[64]

(ii) increased its 'fixed costs' or at least 'break costs' with a ramp-up of FTEs through a resolute adherence to the internal sourcing strategy given the provisions of the EBA;

(iii) increased the number of FTEs with no changes to the EBA requirements and in doing so maximised its fixed costs[65] and imposed a high management overhead in reversing the strategy; and

(iv) there is evidence of inefficient management decisions in the past leading to redundancies, but without evidence of net reductions in costs, leading to higher overall labour costs in 2012/13.

Summary

89. Overall, we find that there is evidence of systemic issues in ActewAGL's labour costs in 2012/13 and that those costs are not reflective of a prudent and efficient service provider.

[64] Acknowledging that there are additional costs in managing external contracts, but given the magnitude of net opex savings from other DNSPs from their outsourcing strategies, we believe that if done well, ActewAGL would reduce its overall staff costs

[65] In the short term, staff can be considered similar to fixed costs due to the time and costs (i.e., redundancy payouts) associated with a reduction to staffing levels

4 Assessment of vegetation management practices

4.1 Introduction

90. In its draft decision, the AER observed that ActewAGL's vegetation management performance deteriorated in the 2009-14 RCP, whilst its vegetation management expenditure increased significantly. The AER's benchmarking analysis compared ActewAGL's vegetation management costs with its NEM peers and determined that it had very high comparative costs.[66]

91. ActewAGL explained that the bulk of the increase in expenditure in 2010/11 to 2012/13 was required to address vegetation growth caused by unexpectedly high rainfall in 2010.[67]

92. The AER examined vegetation management expenditure and determined that ActewAGL's vegetation management expenditure in 2012/13 was inefficient, identifying the following underlying causes:

    (i) inefficient contracting practices;

    (ii) lack of prudent operational risk management (including incurrence of urgent clearance costs); and

    (iii) inefficiency evidenced by declining operational performance.

[66] Figure A.19 in AER Draft Determination, *Attachment 7: Operating expenditure,* 2014, pages 7-80

[67] ActewAGL Revised Regulatory Proposal 2015-19, *Section 8.5.3.5,* page 218

93. The AER also assessed ActewAGL's claim that its backyard reticulation obligations presented a unique challenge and contributed to increased vegetation management costs.

94. In broad terms, ActewAGL identified four claimed flaws with the AER's draft decision in relation to vegetation management as summarised below:[68]

(i) the AER did not provide evidence to support its assertion that the lack of properly constructed outsourcing arrangements led to inefficient vegetation management costs;

(ii) the AER claimed, without evidence, that ActewAGL could reduce its costs with more proactive vegetation management;

(iii) the AER's claim that vegetation management performance deteriorated fails to take into account the increase in vegetation growth over the period; and

(iv) the AER did not assess ActewAGL's proposed vegetation management expenditure, but the base year opex of its own construction – it should have excluded the 2012/13 pass through amount.

95. We have examined the AER's rationale and ActewAGL's responses to inform our views regarding ActewAGL's vegetation management practices, including addressing other issues that we have observed.

4.2 Lack of properly constructed outsourcing arrangement

4.2.1 AER's findings

96. The AER determined that ActewAGL employs hourly-rate based contracting as the primary means of undertaking vegetation management activities and that it was a key driver of high expenditure because the risk associated with low productivity lies with the service provider, and hence consumers.

97. The AER further concluded that hourly rate contracting: (i) does not provide an incentive for effective vegetation clearance; and (ii) is typically only used for emergency work across the industry.[69]

4.2.2 ActewAGL's response

98. A summary of ActewAGL's response is set out below:[70]

[68] ActewAGL Revised Regulatory Proposal 2015-19, *Attachment C11,* pages 24-25

[69] AER Draft Determination, *Attachment 7: Operating expenditure,* 2014, pages 7-83

[70] ActewAGL Revised Regulatory Proposal 2015-19, *Attachment C11,* pages 27-28

(i) ActewAGL employs vegetation clearance contractors through a combination of lump sum and hourly rates and its own staff for ground inspections;

(ii) The AER's use of information from the TAG, GHD's expert report for Aurora Energy, and an Essential Energy document is flawed because:

- the GHD and Essential Energy reports are taken out of context;
- the TAG report does not support the AER's contention that hourly rate contracting arrangements are typically only for emergency work;
- Essential Energy performed well using the AER's preferred benchmarking approach (per Fig A.16); and
- all DNSPs south of, and including, Essential Energy have experienced significant vegetation management expenditure increases over 2009-13, indicating costs are not due to individual DNSP contracting policies.

(iii) Increasing contractor costs are not a major contributor to increased vegetation management costs;

(iv) GHD's expert report for Aurora expressly warns against comparisons of the contracting models of other distribution businesses in assessing efficient contracting model for a particular DNSP;[71] and

(v) Essential Energy's documentation is specific to Essential Energy's circumstances and does not take into account details which GHD states are required for meaningful cost comparisons.[72]

4.2.3 EMCa's assessment

99. Firstly, we consider whether the basic structure of the contracting type used by ActewAGL is 'fit for purpose', being selected to match the specific circumstances of the business. Secondly, we consider the commercial terms underpinning the selected contract type.

Contracting type

100. There are different ways of describing contract types. For instance, JacobsSKM (Jacobs) describes contract types as being hourly rate, lump sum, annual budget-based, and hybrid.[73]

101. There are several aspects to consider in determining whether ActewAGL's contracting arrangement is the most appropriate (i.e., 'fit-for-purpose'), including:

(i) 'normal' vegetation management workload; and

[71] Revised Regulatory Proposal, Attachment C11, page 29

72 ActewAGL, Revised Regulatory Proposal, Attachment C11, page 33

73 Ibid, page 32

(ii) whether or not the increased growth rate required an 'emergency' or 'urgent' clearance response.

102. We observe that ActewAGL was most likely applying the 'hybrid' approach described by Jacobs prior to its declared emergency clearance response. Based on our experience and the information submitted by ActewAGL, it is reasonable to conclude that the hybrid approach deployed by ActewAGL was appropriate to respond to foreseen levels of vegetation growth. We infer that the majority of this expenditure is undertaken on a 'lump sum' basis such that the risk is shared between ActewAGL and its supplier to achieve efficient costs. Under such an approach, hourly rates are typically only used to respond to unforeseen conditions that require urgent clearance.

103. We consider that using hourly rates to respond to emergency/urgent work is a reasonable approach. However, we note that the appropriateness of this contracting approach is highly dependent on the definitions of 'unforeseen conditions' and 'emergency/urgent work'. The application of this approach by ActewAGL is discussed below.

104. We considered the hypothetical question: "If ActewAGL had identified the impending risks associated with higher vegetation growth rates much earlier than it did, would it have been able to arrange a more measured and more cost effective contracting approach?"

105. As discussed in section 4.3, we believe that ActewAGL was not constrained in its ability to arrange a more measured and more cost effective contracting approach had it considered (and planned for) this risk in advance. We consider that ActewAGL had the ability to agree a fixed price or target cost incentive-based contract with its vegetation management supplier(s) to undertake any prospective higher volumes of work (such as those due to weather-related events) in a measured way at a lower total cost than using the emergency response approach.

Commercial terms of the vegetation clearance contract

106. Commercial terms are of equal importance as the contracting type. The selection of a supplier through a competitive tender is often the most transparent means of establishing a good basis for an efficient contract (and for risk allocation). The actual commercial terms will determine the ultimate cost to the client in terms of price and risk. Typically, there are a number of commercial considerations that may reduce risk and/or cost to the parties, including the potential for collaboration and system and process alignment.

107. As we are not privy to the commercial terms entered into with ActewAGL's supplier, we are unable to comment on whether such terms reflect an effective and efficient arrangement for ActewAGL. Our approach was to consider specific outputs, such as the trends of cost and vegetation-caused outages and reliability impacts, which are discussed in section 4.4.

108. Notwithstanding, we would expect to see evidence that ActewAGL's management engaged in contract negotiations to explore various contracting approaches, including:

performance-based contracts, relationship-based contracts, structures that provide for risk/reward sharing, and seeking innovation from suppliers.[74]

Summary

109. We consider that ActewAGL's combined lump sum and hourly rate vegetation management contracting structure may be appropriate if applied judiciously. We note that the commercial terms and conditions underpinning the contracting structure are of equal importance in achieving effective and efficient outcomes. We are unable to comment directly on the cost of service as we are not privy to the commercial terms and conditions. It is our view that ActewAGL, acting prudently, was not constrained in its ability to negotiate commercial terms for vegetation clearance due to events such as higher rainfall, such that the application of an emergency clearance (i.e., hourly contract) approach would not be required.

4.3 Reactive vegetation management

110. ActewAGL advised that rainfall in 2010/11 and 2011/12 was well above the long term average (following several years of below-average rainfall) and led to vegetation growth and encroachment on clearance zones of a scale that was not foreseeable in forecasting its expenditure in 2008 for the ensuing RCP, nor was it apparent until ActewAGL's preparation for the 2012/13 bushfire season:

> "*The unexpected and uncontrollable increase in vegetation growth led to additional vegetation management (inspection and clearance) costs during the 2009-14 regulatory period above the allowance in the AER's 2009 final decision*."[75]

111. ActewAGL submitted that the increased vegetation growth fell outside of the normal operations of ActewAGL's business and that "*prudent risk management could not have prevented or mitigated the effect of the event"*.[76]

112. ActewAGL submitted a pass through event claim of $1.9m, which comprised incremental costs which ActewAGL claimed occurred as a result of the pass through event.[77]

4.3.1 AER's response to the pass through application

113. The AER considered a number of factors concerning the pass through application, including:[78]

(i) the timing of the pass through application;

(ii) whether or not the event was uncontrollable and foreseeable;

[74] PBC contract structures can be applied to most contract types

[75] ActewAGL Subsequent Regulatory Proposal 2015-19, page 218

[76] ActewAGL, Vegetation management cost pass through application, C76, page 12

[77] ActewAGL Subsequent Regulatory Proposal 2015-19, page 218

[78] AER Final Determination, ActewAGL vegetation management cost pass through application, pages 15-17

(iii) the impact of a change in costs on ActewAGL's ability to achieve its opex and/or capex objectives; and

(iv) whether the event falls within any other cost pass through definition.

Uncontrollable and unforeseeable events

114. The AER considered a number of definitional issues concerning what constitutes an 'uncontrollable and unforeseeable' event, and concluded that the event was unforeseeable, specifically that the increase in vegetation growth in 2012/13 was unforeseeable at the time ActewAGL submitted its RP to the AER.

115. However, the AER determined that ActewAGL should have engaged in prudent risk management to prevent or mitigate the effect of the event.[79] The AER did not accept ActewAGL's claim for pass-through costs.

Prudent vegetation management

116. The AER determined that, from the information provided by ActewAGL, its vegetation management strategy and actions were based on a reactive approach. It further found that a proactive strategy would have prevented or mitigated the additional costs from the changes in growth rates from the above average rain fall. Specifically, the AER determined that it would be prudent for ActewAGL to have:[80]

(i) a management strategy that allows appropriate recognition that an event is occurring and which provides for pre-emptive actions to prevent or mitigate the effect of significant vegetation growth; and

(ii) undertaken appropriate action to put in place such a strategy at the first opportunity after an event should reasonably have come to its attention.

ActewAGL's vegetation management strategy was flawed

117. The AER found that:

(i) ActewAGL took too long to identify and adjust its strategy to respond to the risk of increased vegetation growth, noting that there was evidence that vegetation growth was already increasing significantly in 2011-12;[81] and

(ii) ActewAGL did not monitor the volumes of work undertaken over the period.

118. The AER concluded that ActewAGL should have been aware of the regrowth event by late 2011 or early 2012 (by monitoring rainfall) and should have adopted a "*considered and managed response*" before the 2012/13 bushfire season, but did not do so based on the evidence presented.[82]

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[79] *Ibid, page 17*

[80] *Ibid, page 17*

[81] From the rise in the number of first notices issued, increasing contractor costs, the saturating rain in warmer months in 2010/11

[82] *Ibid, page 19*

119. The AER further considered that ActewAGL could have applied a range of possible responses to prevent or mitigate the impact of higher vegetation growth.

120. With respect to the mitigating actions that ActewAGL advised it had taken to respond proactively to mitigate costs, the AER responded as follows:[83]

(i) *Reinforcing community awareness* – whilst acknowledging that this would have had an impact on the number of first notices issued, as ActewAGL is not responsible for vegetation cutting in urban areas, the AER determined that this would have had only a minimal mitigation impact;

(ii) *Reprioritisation of labour* – the AER accepted that ActewAGL's reprioritisation of labour from other projects to vegetation management was an action that did reduce the magnitude of the proposed pass through event; and

(iii) *Introduction of new technology* – as the LiDAR technology was not rolled out until the end of 2012-13, despite the AER acknowledging that it is an improvement initiative, it found that it would have had only a minimal impact in mitigating the overall cost of the claimed pass through event.

121. On the basis of the minimal contribution from the three mitigating responses denoted above, the AER found that ActewAGL's actions were insufficient to demonstrate that it had undertaken prudent operational risk management.

4.3.2 ActewAGL's response

122. In its Revised Regulatory Proposal, ActewAGL contends that the AER:

(i) did not provide evidence to support its hypothesis that ActewAGL was insufficiently proactive;

(ii) did not provide any analysis of how the costs of increasing inspection rates would be offset by a corresponding decrease in urgent clearance costs; and

(iii) had no regard to the expert information submitted by ActewAGL.

123. ActewAGL contends that it was proactive, as evidenced by the elements of its policies and practices,[84] and that no other DNSP continuously monitors and responds to rainfall, refuting the determination that ActewAGL was inefficient for not doing so.

4.3.3 EMCa Assessment

124. We focused on the 'operational' aspects in paragraph 113, namely items (ii) and (iii). We considered that items (i) and (iv) are not relevant to this review given that the pass through application process has been completed.

[83] *Ibid, page 17*

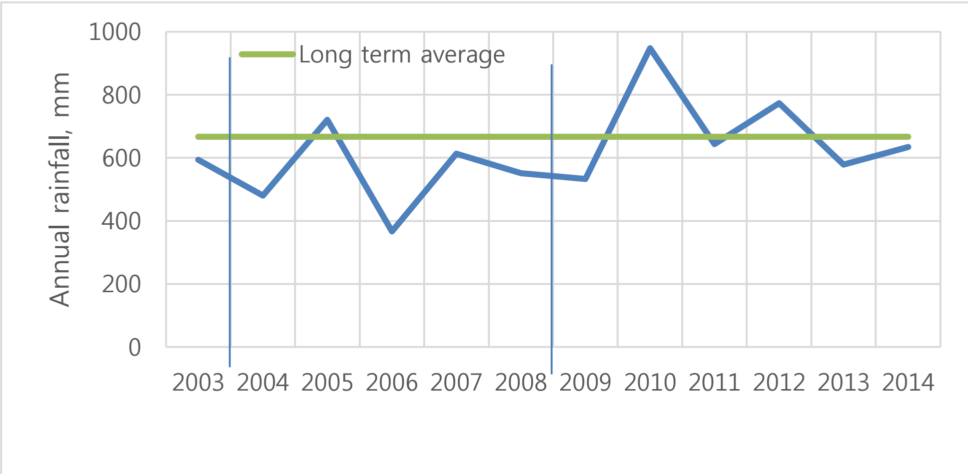
[84] Listed on page 35 of ActewAGL's response to the AER's detailed review of labour and vegetation management Attachment C11 of the Revised Regulatory Proposal 2015-19

Above average rainfall in 2010 (and 2012)

125. As ActewAGL has confirmed, and as illustrated in Figure 3 below, rainfall in 2010 was well above the annual average (and approximately 70% above the average rainfall in 2004-2008).

126. After many years of below average rainfall, it is our view that the periods of higher rainfall should have been noticeable to ActewAGL and that it should have been factored into its vegetation management strategy and plan by 2010/11 at the latest.[85]

Figure 3: Canberra annual and average rainfall for period 2003-2013, mm



Source: Bureau of Meteorology web site

ActewAGL's vegetation management strategy

127. We consider that, whilst accelerated vegetation growth resulting from higher than average rainfall was not controllable by ActewAGL, the extent of the prospective impact on the network and the cost and strategic approach to mitigate the risks of such an event was readily foreseeable and controllable. Prudent control measures include, but are not limited to, the deployment of robust asset, risk and works program management practices.

128. Good asset management practice[86] and good risk management practice[87] both require, among other things, an integrated approach to risk management that includes:

- risk assessment – including identification, analysis, evaluation and treatment of risk; and
- regular monitoring and review - with any changes in risk parameters (such as likelihood, consequence and treatment options) requiring an updated assessment process.

[85] Arguably, breaking of a drought that is evident from at least 2003 (per Figure 3) should have been factored into the vegetation management risk assessment and plan

[86] ISO 55001: 2014 Asset Management systems

[87] ISO 31001: 2009 Risk management—Principles and guidelines

129. ActewAGL's Vegetation Management Policy and Strategy documents do not explicitly include details of its risk assessment for vegetation, including prospective events of accelerated vegetation growth. In the information that we reviewed, there is insufficient evidence that ActewAGL followed the precepts of its asset management strategy and policy[88] and/or that it followed its risk management policy and procedures[89] by proactively identifying that the high rainfall in 2010 might reasonably accelerate vegetation growth to the extent that it could pose a risk to network reliability and public safety.

130. We consider that a prudent and efficient service provider, acting reasonably, would have identified and evaluated this prospective risk, including possible treatment strategies and options. Through regular management review of vegetation risks and/or review of its vegetation management performance, we consider that it would have likely selected one or more of the available treatment options to mitigate the risk of accelerated growth and achieve a lower implementation cost.

131. In its RRP, ActewAGL described the initiatives that it introduced and implemented once it became aware of the impact of the above average rainfall in 2010 and 2011 on vegetation growth.[90] We consider these initiatives to be either: (i) indicative of inherent inefficiencies in its vegetation management practices; and/or (ii) not relevant to ActewAGL's handling of the record rainfall starting in 2010 and the efficiency of ActewAGL's vegetation management costs in 2012/13. Our position regarding each of the initiatives put forward by ActewAGL as evidence of its proactive risk management is set out below:

(i) Ground patrols – these are a typical aspect of vegetation management, but apparently did not alert ActewAGL to increased growth in time to avoid treating the situation as an emergency;

(ii) Trimming back to allow for three years regrowth – this is common industry practice, but was not able to prevent the vegetation growth reaching a point where ActewAGL decided to treat it as an emergency situation;

(iii) The introduction of more regular aerial patrols and LiDAR – this is a reactive initiative in the context of the high rainfall/high vegetation growth event and, in part, appears designed to address significant inspection process inefficiency;

(iv) ActewAGL's consideration of introducing a geographical vegetation database – this is not proactive in the context of responding to an extended period of high rainfall and the subsequent likelihood of high vegetation growth; and

(v) ActewAGL's targeted advertising campaign – this is likely to have reduced the cost of addressing the accelerated vegetation growth, but was not a proactive measure in the context of the utility responding to the period of high rainfall and subsequent high vegetation growth.

[88] ActewAGL, Attachment D1, Asset Management Strategy

[89] Risk Management and Legal Compliance policy, Document ID: PO4604

[90] ActewAGL, Revised Regulatory Proposal 2015-19, Attachment C11, pages 34-36

132. We consider that more robust and effective vegetation inspection and project/program management practices, had they been in place at ActewAGL, would have supported the monitoring and review cycle by identifying above-budget volume and/or expenditure trends through regular performance reviews. Variances in lag and leading vegetation management indicators should have alerted ActewAGL's management that corrective action was required much earlier than it was eventually identified in mid-2012.

133. Our conclusion is that ActewAGL's reactive and delayed response to the vegetation-based risk posed by the above average rainfall that occurred from 2010 was not representative of prudent asset, risk, or works program management.

The incremental cost of responding to the increased growth rate

134. The list of suggested alternative actions to meet network risk and public safety risk objectives within budget identified by the AER provide a reasonable identification of the actions that could have been pursued by ActewAGL.

135. Based on our experience, it appears reasonable that the combined cost mitigation strategies outlined by the AER[91] would have significantly mitigated the cost of the program.

Summary

136. We conclude that ActewAGL's vegetation management practice and strategic and tactical responses were generally inadequate for the 2010-2013 period. We consider that the evidence indicates that ActewAGL did not act prudently and efficiently to reduce the risks and costs associated with a prospective event of accelerated vegetation growth.

4.4 Inefficiency evidenced by declining performance

4.4.1 AER's findings

137. The AER considered that, despite increasing costs, the increasing number of network outages due to vegetation (from under 60 in 2008/09 to over 140 in 2012/13) appeared to be at odds with an expectation of increased reliability due to safety-focused operating and maintenance expenditure in the 2009-14 period, as described in ActewAGL's RP.[92]

4.4.2 ActewAGL's response

138. ActewAGL submits that: [93]

(i) The AER did not take into account vegetation growth over the period: "*it was the unexpected and uncontrollable vegetation growth in 2012-13 that was the subject of [ActewAGL's] cost pass through application to the AER*"; and

[91] AER, Final Determination – ActewAGL Distribution cost pass through application, July 2014, pages 20-21

[92] Figure A.18 in AER Draft Determination, *Attachment 7: Operating expenditure,* 2014, pages 7-80

[93] ActewAGL, Revised Regulatory Proposal 2015-19, *Attachment C11,* pages 37-39

(ii) "*Whilst the number of events has risen, the impact on rural SAIDI and SAIFI has significantly declined while urban SAIDI and SAIFI remained relatively stable*". This indicates that ActewAGL's vegetation management program has been improving.

4.4.3 EMCa's assessment

139. All factors being equal, we would expect that an effective vegetation management plan would:

(i) maintain or reduce the number of outages caused by network vegetation; and

(ii) maintain or reduce the impact of vegetation on network reliability (i.e., maintain or improve SAIDI).

140. We consider that an effective vegetation management plan would include provision for the type of vegetation, average growth rates and environmental factors such as weather.

141. We consider that proactive vegetation maintenance assists in reducing the number of vegetation-related incidents. It also reduces the cost of reactive vegetation maintenance. We expect that the doubling of the number of outages reported over the period would have a negative cost impact on ActewAGL, thereby adding a further incentive to review its practices.

142. We consider that the higher number of outage incidents during 2012/13 was likely to be primarily caused by the high vegetation growth rate associated with the high rainfall. The reduction in the impact of vegetation-related incidents on supply reliability indicates that the contractor resources targeted the highest risk areas.

143. The reduced impact of vegetation incidents on network reliability is an indication that ActewAGL has been directing its contractors to higher risk/impact areas of its network. This is an indicator of prudent operation, but is not sufficient to conclude that vegetation management is efficient.

144. Overall, we consider that ActewAGL has provided new information that refutes the AER's draft determination finding that an increasing number of vegetation-related outages is an indicator of inefficient vegetation management costs.

4.5 Inspection and clearance process inefficiency

145. We have assessed the information provided concerning the inspection and clearance process for vegetation management in the context of cost effectiveness and efficiency in 2012/13. We have deviated from the structure in previous sections as this topic was not the subject of direct response from ActewAGL in its RRP.

Background

146. ActewAGL forecasts spending approximately $4.0m p.a. on vegetation management. Of this amount, approximately $1.8m p.a. is budgeted for urban vegetation, $1.2m for rural

vegetation management and $0.8m (20%) is forecast for urgent clearance costs across both rural and urban areas.[94]

147. ActewAGL inspects about 44,000 properties p.a., with about 10,000 clearance notices issued per year. ActewAGL undertakes vegetation clearance when the property owner fails to respond to a second notice. It is able to recover these costs unless the work is undertaken in 'urgent circumstances'. ActewAGL also incurs the costs of removing pre-existing vegetation. [95]

148. ActewAGL reports that urban vegetation management costs are higher in the ACT because much of the LV overhead urban network spans in backyards of residential properties (causing access issues). This seems to be a reasonable assertion based on ActewAGL's description of the steps necessary to safely access the overhead spans in question. The AER also noted in its detailed review that backyard reticulation seemed to present a unique challenge and, as a result, subsequently provided an adjustment to its benchmarking as an operating environment factor allowance to account for this.

149. Based on the information provided, we consider that the degree of difficulty in accessing rural spans to undertake vegetation management is commensurate with other DNSPs.

150. We have considered how ActewAGL manages the urban vegetation management, cognisant of its particular circumstances.

Inspection process efficiency

151. The inspection process is critical to proactively identify the areas that require clearance activity and to mitigate the risk of vegetation-caused network supply interruptions.

152. ActewAGL advises that it has improved the productivity of its vegetation management team through:

(i) the introduction of mobile technology (from 2012/13):

- *"Over time ActewAGL has continued to improve the productivity of its vegetation management. In addition to the introduction of aerial inspections ActewAGL has developed and deployed a mobile data capture system in 2012/13. The new system replaced the old system which required vegetation inspectors to travel to a depot and spend time completing paper based forms to collect information and issue notices. The new system allows vegetation inspectors to wirelessly log information and issue notices as inspections are conducted."*[96]
- *"ActewAGL Distribution has also improved the productivity of its vegetation management team with the introduction of a new system that allows vegetation*

[94] This information was provided in ActewAGL's Regulatory Proposal; ActewAGL has modified its forecasting methodology in preparing its Revised Regulatory Proposal but as it has not provided updated information on these specific figures we have relied on them to identify *indicative* ratios of expenditure between urban, rural, and urgent clearing costs

[95] ActewAGL, *Operating and capital expenditure 'site visit' clarifications, October 2014,* page 35

[96] ActewAGL, *C75 – Vegetation management cost pass through,* November 2013, pages 18-19

inspectors to wirelessly log the required inspection information and issues notices to occupants as inspections are conducted."[97]

(ii) The use of LiDAR:[98]:

- *"ActewAGL Distribution expects that the use of LiDAR will enable further efficiencies to be delivered. LiDAR allows a greater understanding of vegetation to be developed and improvements to be achieved in the planned vegetation management program. In turn these improvements will reduce urgent clearance costs."*

- *"In 2019, ActewAGL Distribution expects that urgent clearance costs will be about 60% of the costs incurred in 2013/14. Accordingly, ActewAGL Distribution has reduced forecast operating expenditure in an incremental manner from 2014/15 through to 2018/19. Forecast costs have been stepped down by 10%, 20%, 25% 35% and 40% in each year of the regulatory control period relative to the cost estimate for 2013/14."*

153. The extent of improvements to its inspection practices that ActewAGL identified in 2012/13 and has been progressively addressing since, suggests that there was material inefficiency inherent in its vegetation inspection practices in 2012/13.

154. We also consider that the proposed reduction in urgent clearance costs will likely be achieved (at least in part) by reducing the amount of vegetation management clearance work being undertaken on an hourly rate basis, with more work being performed under the more cost-effective lump-sum approach. Furthermore, *"ActewAGL Distribution incurs the full cost in inspecting and clearing vegetation in urgent circumstances. ActewAGL Distribution cannot recover these costs from landholders or TAMS."*[99] Under-recovery of costs represents an added source of operating cost inefficiency from ActewAGL's vegetation inspection processes and practices in 2012/13 which were exacerbated by an excessive amount of work undertaken under 'urgent circumstances.'

155. We consider that the proposed reduction in urgent clearance costs reflects ActewAGL's intent, in part, to address its overly reactive and inefficient vegetation management process used in previous years, including 2012/13.

Summary

156. We conclude that there is evidence of systemic issues that indicate sources of inefficiency in vegetation management circa 2012/13, including:

- inefficient office-field and field-to-office practices;[100] and

- inefficient vegetation clearance practices.

[97] *Ibid, page 36*

[98] *Ibid, page 37*

[99] *Ibid, page 37*

[100] At an organisational level, and which we infer is likely to apply to vegetation management

157. In turn, inefficient work practices result in labour inefficiency through sub-optimal work planning and contracting arrangements (e.g., excessive hourly rate contracting).

Appendix A Credentials

Paul Sell: Energy economist and electricity network management specialist

Paul Sell is an energy economist and management consultant with over 30 years' experience advising the electricity and gas industry, regulators and government policy-makers. Paul founded Energy Market Consulting associates (EMCa) in 2002 and is its Managing Director.

Career summary and experience

Prior to establishing EMCa, Paul was a Vice President in Capgemini Ernst & Young (now Capgemini), based in Sydney, with responsibility for energy sector reform consulting in Asia-Pacific. Prior to this he was a Partner in Ernst & Young Consulting, where he established and headed a team of consultants based in Sydney and Melbourne providing policy, strategic and management advice on and to the electricity and gas sectors. Prior to this Paul was a government economist, with responsibilities for energy sector forecasting and planning.

Over his career, Paul has specialised in the provision of advice in relation to electricity networks. Commencing in the late 1980s, Paul was a foundation developer of electricity network access and pricing arrangements. He led development of some of the first formal electricity network Asset Management Plans in New Zealand the early 1990s and developed aspects of the electricity network pricing, access and regulatory arrangements across Australia and New Zealand in the early to mid-1990s. This included developing the transmission access and pricing structure for Victoria (and which was then largely adopted for the NEM). In the mid to late 1990s, Paul and his team in Ernst & Young had significant roles as advisers to the Victorian Government on its electricity and gas privatisation programs and which included assessments of the relevant electricity and gas businesses and their expenditure requirements. In the early 2000s, Paul similarly advised the WA Government on efficient expenditure requirements for Western Power, as part of its disaggregation and corporate establishment.

Paul has experience with many hundreds of projects that involved expenditure justification, expenditure forecasting, demand forecasting, business modelling, energy market policy advice, business process and system requirements, the provision of advice on energy markets and market structures, advice on regulatory policies and mechanisms and the provision of general management consulting advice as a senior member of a major global management consulting and advisory firm.

Paul has led or undertaken 14 recent expenditure assessments of energy network businesses, for regulators including the Australian Energy Regulator, the Singapore Energy Market Authority, the New Zealand Commerce Commission and the WA Economic Regulation Authority.

Qualifications

Paul has a B.Sc. (Hons) degree in economics, specialising in Operations Research. He has training in Economy, Effectiveness and Efficiency assessments with the Canadian Comprehensive Auditing Foundation and is a past Member of that Foundation.

Mark de Laeter: Engineer and electricity network management specialist

Mark de Laeter is an electrical engineer with over 30 years' experience in the electricity industry, ranging from executive to line management positions in Western Power, a Top 500 Australian company with over 5,000 personnel, from 1981 – 2012. He joined Energy Market Consulting associates in 2013 and has experience in Australia, New Zealand and Singapore, providing electricity and gas-related consulting services, primarily to energy sector regulators.

Career summary and experience

Prior to joining EMCa, Mark was the General Manager Networks at Western Power. Mark was responsible for developing, securing approval for and managing the network investment portfolio (transmission and distribution, operating and capital expenditure). The role included direct responsibility for network planning and development, network performance, major customer services, smart grid development, investment portfolio management, network engineering standards and policies, network data management, environmental management, land access and safety and technical investigations.

Prior to his role as GM networks, Mark was the General Manager Customer Service which included accountability for management of all service offerings to Western Power's 1 million customers, engineering design, and transmission plant procurement. Prior to this he was the General Manager Asset Management and prior to that was the Manager Regional Power Procurement.

As a manager, senior manager and executive general manager, Mark has been directly involved in a number of major 'transformational' organisational reviews designed to improve business performance. Improvement initiatives have involved asset and project management, cultural change, corporate strategy development, organisational structure, human resource capability, and operational performance, and governance. He has both participated in the development, approval, and delivery phases of the reviews and subsequent improvement initiatives.

Mark has had responsibility for all aspects of asset management in an electricity network, including for vegetation management and including monitoring, control and changes to outsourcing arrangements. As a consultant, Mark has specialised in reviewing the governance, management, expenditure justification, expenditure forecasts and performance of electricity and gas utilities and has done so in Australia, New Zealand and Singapore.

Qualifications

Mark has a B.Eng. (Electrical), M. Engineering Science and a Masters of Business Administration. He is past Chair of the Electricity Networks Association Asset Management Committee, and within Western Power, was Chair of the Works Program Committee.

Gavin Forrest – Engineer and electricity network management specialist

Gavin is an electrical engineer with 20 years' experience in all aspects of the electricity industry, having held senior management roles in a top 500 Australian Company ranging from engineering and operational management to corporate business strategy and policy. He joined EMCa in 2014 as Associate Director based in Perth, Western Australia. Gavin has extensive knowledge and experience of the electricity supply industry and regulatory environment. Gavin's experience is strongly focused around advising the electricity network sector.

Career summary and experience

Since joining EMCa, Gavin has provided advice to clients in Australia as a specialist in electricity transmission and distribution management. The assignments have involved technical/commercial reviews of the regulatory revenue proposals of transmission and distribution electricity utilities including an assessment of utilities' governance, budgeting, planning and asset management frameworks, demand and expenditure forecasting, and project and program prudency and efficiency.

Gavin has held senior management roles in the WA electricity network business, Western Power including Manager Standards, Policy & Data Quality where he led a large engineering-based team with responsibility for engineering design and construction standards, network technology specification and acquisition, asset data and systems, and safety regulation. Gavin has also held a number of corporate, engineering and operational roles including Manager Corporate Strategy and Policy which included development of the organisation's long term plans, policy settings, development of planning and governance frameworks and management of shareholder interests.

As a manager and senior manager, Gavin has led a number of organisation reviews and developed and implemented organisation wide improvement programs. He has undertaken strategy development with the Board and Executive, including performance review and challenge sessions, undertaken reviews and diagnosis of the business operations, developed efficiency programs and delivered significant savings from operational and business improvement initiatives.

Gavin's experience includes development and introduction of management systems and governance frameworks, planning processes and systems, review and development of process accountabilities, and infrastructure standardisation of plant and systems. He has also led an internal business and process improvement consulting team. Improvement initiatives have involved asset and project management,, cultural change, corporate strategy development, organisational structure, HR capability operational performance and governance. As Manager Standards, Policy & Data Quality, Gavin was accountable for the engineering standards for work on the electricity transmission network, the safety regulation and management framework and management of the data requirements for all capex and opex activities including maintenance.

Qualifications

Gavin has B.Eng. (Electrical).

Addendum

An Addendum Report is provided under separate cover, responding to each of the 62 ActewAGL responses to paragraphs and associated elements of a draft of the current report.

Addendum to EMCa Final Report to AER on ActewAGL Base Year Opex – Labour and Vegetation Management

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Summary of Responses to ActewAGL's comments on EMCa's draft Report for the AER

As requested, this addendum provides EMCa's replies to each of the 62 ActewAGL responses to paragraphs and associated elements of our draft report. EMCa's responses in this table are intended as a guide to the manner in which we have addressed certain points and certain information. They should not be read, or interpreted, to in any way over-ride or alter the meaning of our advice as contained in the main body of this report.

It should be noted that ActewAGL's response referenced paragraph numbers in the draft report that the AER provided to ActewAGL. Paragraph numbering and text has since changed in the process of finalising this report.

EMCa para #	EMCa draft report	ActewAGL response	EMCa response
Assessment of labour costs			
Work practices, processes and systems			
MHC (Marchment Hill Consulting) Organisational Review ActewAGL Networks			
30	EMCa's characterisation of ActewAGL Distribution's response in the Revised Regulatory Proposal to the AER's findings concerning work practices, processes and systems	EMC[a] makes no mention of ActewAGL Distribution's primary contention in response to the AER's reliance on MHC's report, namely that the primary objective of MHC's review was to understand and address performance issues (in particular as to employee engagement and safety) with the object of ensuring the continued achievement of the operating expenditure objectives, rather than identifying opportunities for cost savings.[1] ActewAGL Distribution refers to the letter from MHC annexed to and discussed in the submission in support of this contention. EMC[a]'s failure to acknowledge this contention in characterising ActewAGL Distribution's response to the AER's reliance on MHC's report (let alone consider and respond to that contention) illustrates ActewAGL Distribution's contention in the submission that EMC[a] is selective in its consideration of the relevant contentions advanced and materials adduced by ActewAGL Distribution.	The MHC report was provided by the AER to EMCa for inclusion in its assessment. The MHC report identifies six key objectives of its work for ActewAGL (the focus of which was to conduct an Organisation Review on Energy Networks Division), including: • *To identify, validate and understand key performance issues and improvement opportunities.* MHC's analysis provides information on, and an assessment of, the status of ActewAGL's work practices, processes and systems in 2011. From this, 34 improvement initiatives were derived, and to which ActewAGL in its RRP attributes 'productivity improvements'. MHC's report does not provide a quantitative assessment of the potential productivity gain possible, nor does our report claim that it did so. EMCa rejects ActewAGL's assertion that we have been inappropriately selective in our consideration of the MHC report. MHC's letter to ActewAGL refers to a document entitled "ActewAGL 2010-2020 Transitional Strategy". ActewAGL did not provide this to the AER despite its request (of 27 August 2014): *"Please provide all documentation in the 2009-14 period considered by senior management and/or ActewAGL's board that discusses labour resourcing strategies, including decisions regarding the utilisation of internal and contracted labour."*

1 ActewAGL, *Revised Regulatory Proposal, 2015-19 regulatory control period*, January 2015 (**Revised Regulatory Proposal**), Attachment C11, pages 18-19.

33	The description of key issues included in MHC's report suggest to us a set of organisational problems which collectively represent a significant source of organisational inefficiency.	EMCa does not substantiate why the key issues identified in MHC's report 'collectively represent a significant source of organisational inefficiency'.	EMCa has applied its experience in organisational reviews to determine from the MHC findings that there is significant organisational inefficiency. The sources of inefficiency arise from key issues identified by MHC, including but not limited to: • lack of clarity around accountabilities and responsibilities; • silo working and limited cross-boundary collaboration; • 'lacking' informal and formal information flows; • duplication and multiple handoffs; • lack of process compliance; • reluctance to embrace new practices; • lack of urgency and commercialism; • lack of holistic sourcing strategy; • user dissatisfaction with tools, systems and data analysis; and • poor performance management.
34	We note that neither MHC nor ActewAGL nominated (or published) a target for tangible benefits that would result from the organisational 'transformation'. Based on our experience, we consider that the collective operational efficiency benefit that is likely to be realised by addressing the issues identified is material: (i) The issues identified extend throughout the entire value chain (i.e. from the way ActewAGL plans its work, through to delivery, and how it monitors and controls its performance operationally and strategically). MHC observed that: 'improvements	EMCa misunderstands the purpose of MHC's report. There is no basis for EMCa's conclusion and no evidence to support it. ActewAGL Distribution has previously informed the AER in its Regulatory Proposal[2] and Revised Regulatory Proposal[3] that the primary objective of the MHC review was to understand and address performance issues identified by ActewAGL Distribution's management, including in relation to safety, not to nominate tangible financial savings. The attached letter from MHC confirms the objectives of the 2011 review, and notes that explicit efficiency opportunities would have been noted if they had been apparent.	EMCa has revisited the Background information and Objectives sections of the MHC review and report (i.e., sections 1 and 2) and have considered the letter from MHC provided in the RRP to explain the purpose and limitations of its review. We remain of the view that a reasonable interpretation of MHC's review is that it was initiated to recommend a new organisational structure and necessarily encompassed other aspects of the operating model analysis. MHC duly reported on these. We note also that MHC's findings included the following:[4] • [redacted]

[2] ActewAGL, *Regulatory Proposal, 2015-19 Subsequent regulatory control period*, 2 June 2014 (resubmitted 10 July 2014) (**Regulatory Proposal**), page 216.

[3] Revised *Regulatory* Proposal, Attachment C11, page 18.

[4] MHC, Section 4

	are needed to all elements of ActewAGL's Operating Model – changing the organisational structure alone will not address all of the issues sustainably.'		• *These issues are apparent across ActewAGL's value chain (i.e., the way the business plans and delivers its program of work).* • *Improvements are needed to all elements of ActewAGL's Operating Model – changing the organisation structure alone will not address all of the issues sustainably."* We noted the detailed findings in each of the six operating model elements and MHC's assessment of the degree of improvement available to ActewAGL. We also noted that ActewAGL derived 34 improvement initiatives aligned to MHC's work, which it subsequently progressed. We are advised by the AER that it asked ActewAGL (on 27 August 2014) to provide "*more detail on the structural changes which were implemented following the [Marchment Hill] review, including:* *i. Were any cost savings realised as a result of the changes? If so, how have these been calculated?* *ii. What was the net impact on employee numbers resulting from the structural changes?"* ActewAGL did not provide the requested information. In the absence of an efficiency target from either MHC or ActewAGL we applied our collective managerial and operational expertise to form the view that the organisational improvement opportunities, if successfully delivered, should represent a material operational efficiency benefit.
34(ii)	As indicated in Table 2, above, the pervasive issues are not trivial – the rating of five out of 6 elements as 'needs fixing' indicates that a lot of remedial work by ActewAGL is required, and	As detailed in Attachment C11 to ActewAGL Distribution's Revised Proposal, ActewAGL Distribution did not treat the issues as 'trivial', but rather immediately took steps to address these issues through a range of initiatives and activities.[5]	ActewAGL's response appears to align with our view that the pervasive issues were not trivial.
34(iii)	EMCa personnel have been involved in very similar organisational reviews, with similar findings. Our experience has extended to both forecasting tangible benefits and delivering them – the	EMCa has not provided any details of the 'similar organisational reviews' they have been involved in, nor the findings reached in those reviews or the operational efficiency gains achieved as a consequence of these projects. As a result, it is difficult to	EMCa personnel have had extensive experience in operational and managerial roles in electricity utilities, and also in senior roles focused on the electricity industry in local and major global consulting practices. We hold that we have the expertise and

[5] Revised Regulatory Proposal, Attachment C11, pages 19-21.

	operational efficiency gains from such 'transformational change' projects are substantive and accessible (with sustained organisational focus).	understand, critically assess or respond to this assertion which in turn reduces the probative value of the report. It would be incorrect to assume that the reviews of any two businesses, even if they are electricity distribution businesses, are likely to have the same, or similar, outcomes in terms of tangible benefits.	experience to support our professional opinions. Our scope of work did not require us to make a definitive quantitative assessment or quantitative comparison with other businesses, nor did we do so. Short form resumes for each of the team members have been included in the Final report.
36	We were not able to clearly ascertain which of the initiatives were rolled- out in 2011 (or prior to 2012/13). However in our experience, we would expect a typical network business to undertake 3-5 years of intensive effort to extract the full net benefits from such a transformational change program. Whilst we accept that some of the initiatives can be implemented in twelve months or less however, the substantial net benefits are typically achieved over a longer time period:	As noted above and in ActewAGL Distribution's Regulatory Proposal and Revised Regulatory Proposal, the primary objective of the MHC review was to understand and address performance issues identified by ActewAGL Distribution's management, including in relation to safety, not to nominate tangible financial savings.	Our scope of work required a judgement-based qualitative assessment of the labour efficiency of ActewAGL in 2012/13. ActewAGL's decision to not set a financial savings target for its improvement initiatives does not disqualify us from undertaking our assessment.
36(i)	Statement that 'changing the organisational structure alone will not address all of the issues sustainably', in support of EMCa's contention that only some of the initiatives of such a transformational change program can be implemented in 12 months or less	As Table 1.1 in Attachment C11 to the Revised Regulatory Proposal discloses, ActewAGL Distribution undertook a number of initiatives in response to the MHC report not in the nature of changes to the organisational structure.	ActewAGL's response appears to align with our view that actions other than just changing the organisational structure were required.
36(ii)	Our direct experience is that: • Behavioural change programs take between 3-5 years of consistent effort and investment of management time and resources to create a significant, sustainable lift in employee engagement and constructive behaviours; • Creating a meaningful and sustained lift in organisational human resource capability is a multi-year undertaking; • Developing and implementing end-to-end process improvement is likewise a time and resource consuming endeavour, and with strong leadership can take years to pay back the investment; • Business systems and technology change programs should be progressed in parallel with	EMCa has not provided any details of its 'direct experience'. In the absence of details of this 'direct experience', these assertions are vague, anecdotal and unsubstantiated. As a result, it is difficult for ActewAGL Distribution to properly understand, critically assess or respond to these assertions. In particular, it is questionable whether and the extent to which these assertions are in any way relevant or applicable to ActewAGL Distribution. Further and in any event, as explained in ActewAGL Distribution's response, the authors do not appear to have the requisite expertise to comment on ActewAGL Distribution's labour efficiency. These matters reduce the probative value of the report.	EMCa personnel have extensive experience in operational and managerial roles in electricity utilities, and also in senior roles focused on the electricity industry in local and major global consulting practices. We hold that we have the expertise and experience to support our professional opinions.

	process change to ensure that the greatest benefits from both programs are realised. Often this can lead to delays to one or both initiatives to ensure alignment of benefits. The scale of business system and technology that ActewAGL has embarked upon is complex and extensive and will take several years to design, implement and embed, and • Whilst the improvement initiatives nominated for improving the delivery model are positioned as largely changes to accountability and organisational structure (and should therefore be implemented relatively quickly), the complementary changes required to achieve meaningful benefits are likely to require changes to the skill mix, processes, systems, and reporting - all of which typically take several years of sustained effort.		
36(ii) and 37	Observations of EMCa concerning the time required for the implementation and accrual of the benefits of transformational change programs, including in particular its observation that increased costs would be evident in the first 1-3 years (for restructuring, systems improvements, process redesign, etc) that are not fully offset by efficiency gains in the short term.	ActewAGL Distribution observes that these observations by EMCa underline the implementation costs associated with, and timeframe involved before the efficiency benefits outweigh the costs, of a transformational change program of the kind that would be required for ActewAGL Distribution to align its expenditure with the step change reduction in expenditure allowances contemplated by the AER in its Draft Decision as a consequence of the significant departure from its pre-existing regulatory practice for assessing and determining those allowances.	ActewAGL's response appears to align with our view that there are up-front costs involved in organisational transformation. The scope of our review does not extend to examining the consequences of the AER's draft and/or final decision to reduce opex.
39	We have not seen evidence to support quantified efficiency gains with verified sources of data derived from ActewAGL Distribution's improvement initiatives.	As already noted above, this is explicable on the basis of the object and subject matter of MHC's review and recommendation, which were not directed to the identification and realisation of cost savings.	Given that the MHC report was delivered in 2011 and implementation of the corresponding improvement initiatives commenced in 2011, ActewAGL has had the opportunity through the RRP process to provide verified information pertaining to any targets set and benefits realised.
40	In the absence of compelling evidence from ActewAGL, we do not consider that significant	For the reasons set out in Attachment C11 to ActewAGL's Regulatory Proposal,[6] including in particular that the identification	ActewAGL has acknowledged the existence of implementation costs in its response to items 36(ii) and 37, yet has not quantified

[6] Revised Regulatory Proposal, Attachment C11, pages 18-22.

	efficiency gains were made quickly enough to offset the implementation costs to such an extent that the Base Year costs are efficient.	of cost savings was not the object of MHC's review, ActewAGL Distribution considers that neither the outcome of the MHC review nor the lack of quantification of deliverable financial benefits provides evidence that ActewAGL Distribution's labour costs in the base year were inefficient or support for the AER's benchmarking findings on ActewAGL Distribution's overall level of opex efficiency. ActewAGL Distribution further observes that the operating expenditure criteria established by clause 6.5.6(c) of the Rules necessitate the inclusion of the implementation costs of MHC's recommendations in base year costs used by the AER to derive its alternative opex forecast. As these implementation costs were directed to addressing issues that may have otherwise hindered ActewAGL Distribution's continued achievement of the operating expenditure objectives including that as to safety (as to which see above including in particular in response to paragraph 30 of EMCa's report), the efficiency of those implementation costs does not turn on whether resultant efficiency gains were delivered in the base year that offset those costs. EMCa's conclusion to the contrary is the consequence of its failure (noted in the response above to paragraph 30 of EMCa's report) to consider the matters raised by ActewAGL Distribution in its Revised Regulatory Proposal concerning the objective and subject matter of MHC's review and recommendations.	them and removed them from its efficient base year, nor has it quantified the efficiency gains (if any) achieved in that base year.. The interpretation and application of our advice is a matter for the AER.
Asset Management Planning			

42	Collectively this information strongly suggests that the asset management capability, processes, systems, and practices in place in 2012/13 were sub-optimal. We believe that it is therefore reasonable to assume that the investment decisions and practices of a sub-optimal asset management capability are most likely to be inefficient.	This assumption is not reasonable and does not substantiate claims that ActewAGL Distribution's base year opex was inefficient. While EMCa's conclusion concerning the efficiency of ActewAGL Distribution's asset management planning is detailed in a discrete section of its report, it is premised on its findings set out in paragraph 41 of its report in reliance on MHC's report, SKM's report and its views on ActewAGL Distribution's vegetation management approach. That is, the correctness or otherwise of the conclusions in paragraphs 41 and 42 is dependent on the correctness or otherwise of findings made by EMCa in other sections of its report. ActewAGL Distribution maintains these findings are incorrect for the reasons advanced elsewhere in this response.	Our conclusion regarding ActewAGL's asset management capability, processes, systems, and practices was drawn from evidence in the three sources enunciated by ActewAGL. Accordingly, we disagree with ActewAGL that our findings are incorrect or unsubstantiated.
Resource Planning for ActewAGL's program of work FY 2012/13			
43	The extract set out in paragraph 43 of EMCa report 'points to systemic issues with projects and program delivery'.	In paragraph 43 of its report, EMCa relies on an SKM report titled *Resource Planning To deliver ActewAGL's Program of Works for the FY 2012/13* and dated 27 March 2012, which advises on the resources required to deliver the FY2012/13 program of works. In so doing, EMCa mischaracterises the views expressed in the SKM report in a manner that would appear to be wilfully misleading. First, EMCa selectively edits the passage from the SKM report that is reproduced. Specifically, it	SKM was commissioned by ActewAGL to assist it with planning the delivery of its 2012/13 work plan. We have modified our draft report to take into account ActewAGL's feedback concerning our interpretation of the SKM report. The key statement in SKM's report that we considered pertinent to the assessment of ActewAGL's labour efficiency in 2012/13 was: "*However, the business does not have a consolidated works management system making resource scheduling and forecasting on an ongoing basis, difficult.*" This is confirmed by our reliance only on the sentence above in forming our position, as indicated by our reference in paragraph 44. EMCa refutes any suggestion that it lacks independence or that its opinions are not supported by evidence. This aspect of the report is relevant to our opex analysis because (as noted in the report), lack of a consolidated works management system leads to operational inefficiency.

		omits the discussion that conveys that ActewAGL Distribution has already introduced changes to address most of the issues raised in the prior SKM review referred to in that passage. The relevant extract appearing on page 5 of the report reads, in full, as follows (with the discussion deliberately omitted by EMC[a] bolded for ease of reference): *In a recent review 'Electricity Network Augmentation and Asset Management Plan Review' of the operational performance of ActewAGL conducted by Sinclair Knight Merz (SKM), it was found that the organisation is struggling to deliver the Asset Augmentation Projects and that the Capital Expenditure of the Asset Management Strategy Plan is not occurring to the schedule as planned.* ***This review identified a range of processes and practices that make it difficult to accurately track cost and delivery performance. To overcome this, the business has introduced several changes such as: requiring all projects with a value greater than $1m to have a project brief, introducing practices to provide better estimates and creating a 'project library' to provide a better history of performance and forecast. However,*** *the business does not have a consolidated works management system making resource scheduling and forecasting on an ongoing basis, difficult.* Secondly, EMC[a] fails to recognise that: • the seeking by ActewAGL Distribution of SKM's independent, expert opinion on the resourcing required to deliver the FY2012/13 program of works was in direct response to the residual issue identified in its earlier review and referred to in the final sentence of the extract reproduced above (see the fourth paragraph on page 5 of the SKM report, which states: 'In light of the earlier review and the above objectives, ActewAGL Distribution has sought advice to identify the resources required to deliver the FY 2012/13 Program of Works (PoW)'); and • accordingly, the issues identified in the prior SKM review referred to in the passage extracted have no relevance to the efficiency of ActewAGL Distribution's expenditure in the 2012/13 base year.	

		Thirdly, EMC[a] fails to acknowledge that the issues discussed in the extract quoted are stated by SKM (at pages 5 and 7) to arise in relation to the delivery of Asset Augmentation Projects anticipated in the 2008/09 to 2017/18 Electricity Network Ten Year Augmentation Plan and the Capital Expenditure of the Asset Management Strategy Plan and, accordingly, for this reason also have no relevance to EMC[a]'s assessment of ActewAGL Distribution's operating expenditure incurred in the 2012/13 base year. Indeed, contrary to the conclusions on the efficiency of ActewAGL Distribution's operating expenditure in the 2012/13 base year reached by EMC[a] in reliance on the SKM report, SKM expressly states at page 7 of its report that, in its prior review, 'a very high level review of the operational expenditure under the [2008/09 to 2013/14 ActewAGL Asset Management Strategy Plan] was conducted. This revealed that most programs involving inspection and maintenance work were being achieved within reasonable tolerances for quantity and budget'. ActewAGL Distribution maintains that EMC[a]'s misuse of the findings of SKM illustrates: • that EMC[a], at least at times in its report, compromises its independence and advocates the position of the AER in the Draft Decision; and • why the AER should adopt extreme caution in relying on the various assertions in EMC[a]'s report that are unsubstantiated by evidence, reasoning or analysis (in respect of which ActewAGL Distribution has been unable to understand and critically assess their basis).	

44	The lack of a consolidated works management system is an inhibitor to operational efficiency which, in our experience, is likely to lead to: • Duplication of effort in 'head office' and in the field for work planning and scheduling; • Loss of productivity in the field through sub-optimal field workforce planning; and • Inefficient office-to-field and field-to-office information flows.	As this conclusion is reached in reliance on the extract from the SKM report set out in paragraph 43 of EMC[a]'s report, ActewAGL Distribution refers to and repeats its contentions in response to paragraph 43. In addition, ActewAGL Distribution repeats its observations concerning the experience on the basis of which EMC[a] makes these assertions and opines on the operational efficiency of ActewAGL Distribution set out at in the submission. Finally, ActewAGL Distribution queries the extent to which and basis on which EMC[a] maintains the applicability of these conclusions to ActewAGL Distribution.	ActewAGL's response above to paragraph 43 does not refute the statement that ActewAGL does not (or did not as at the date of the SKM March 2012 report) have a consolidated works management system. EMCa personnel have had extensive experience in operational and managerial roles in electricity utilities, and also in senior roles focused on the electricity industry in local and major global consulting practices. We hold that we have the expertise and experience to support our professional opinion on this matter.
Summary			

46	Based on our review of ActewAGL's own information, including two reports generated by their own consultants, we have found evidence of systemic issues in ActewAGL's work practices, processes and systems that were considered to have existed in 2012/13 and that have resulted in labour inefficiencies.	It appears that EMCa has undertaken an extremely limited review of ActewAGL Distribution's Revised Regulatory Proposal and fails to address the contentions made in that Proposal in response to the AER's Draft Decision in a detailed and considered manner. Rather, EMCa has relied on its reading of reports prepared for differing purposes on behalf of ActewAGL Distribution and references to reviews performed for it at an earlier points in time, in the context of the AER's conclusions on the efficiency of ActewAGL Distribution's operating expenditure in the 2012/13 base year. Further and in any event, EMCa has not had regard to the key argument raised by ActewAGL Distribution regarding the intent of the EBSS as it relates to efficiency gains, nor is it qualified to do so.[7] EMCa fails to express any view on whether ActewAGL Distribution's labour resourcing practices are likely causes of its poor performance in the AER's benchmarking analysis, notwithstanding this was the primary purpose of its report as articulated in the AER's terms of reference (see 'Scope of work' in the AER's 'Work Order for Technical Advice' dated 18 December 2014). In particular, EMCa has not sought to address the extent to which its findings support the quantum of the efficiency gap identified in ActewAGL Distribution's base year operating expenditure by the AER in concluding that the AER's findings are correct. While ActewAGL Distribution accepts that EMCa was asked to undertaken a qualitative, limited scope review, ActewAGL Distribution considers it essential that EMCa comment on the extent to which its own conclusions support a finding that approximately 40% of ActewAGL Distribution's operating expenditure in the base year is inefficient, at least in broad terms.	The scope of EMCa's review was clearly enunciated in our draft report. We provided advice to the AER in accordance with that scope. The scope did not extend to: (i) an assessment of the benchmarking analysis undertaken by, or for, the AER; (ii) provision of a quantitative assessment of ActewAGL's labour inefficiency; or (iii) commentary on the intent of the EBSS as it relates to efficiency gains.

[7] Revised Regulatory Proposal, Attachment C11, page 22.

Inefficient labour levels			
RIN Data issues			
49	In response to ActewAGL's concerns with the AER's reliance on comparative analysis, our view is that the AER's approach was to use benchmarking as a starting point for identifying potential areas of inefficiency. It then undertook further analysis to test the benchmarking results (and ultimately made adjustments according to the factors that explain ActewAGL's comparative disadvantages).	This statement does not address or consider ActewAGL Distribution's concerns with the AER's benchmarking approach set out in Attachment C11 to its Revised Regulatory Proposal.[8] It reveals a lack of understanding on the part of EMCa of the AER's benchmarking approach, in particular by mischaracterising the degree of reliance by the AER on its benchmarking analysis.	EMCa was not requested to address or consider the AER's benchmarking analysis.
50	Furthermore, the AER's approach of combining various quantitative and qualitative approaches to test hypotheses is an appropriate way of dealing with data quality issues. In the absence of 'perfect data', we consider such an approach to be pragmatic and balanced.	In circumstances where data quality issues render AER analysis unreliable, no probative value can be properly accorded to that analysis. The AER's use of other quantitative and qualitative approaches to test hypotheses formulated on the basis of such analysis cannot remedy this. Combining various quantitative and qualitative approaches to test hypotheses where both approaches are weak does not amount to a strong, robust approach. In suggesting the contrary, EMCa is performing the role of advocate, not independent expert.	EMCa was not requested to address or consider other approaches. We hold that it is important that a stream of advice is prepared with some contextual understanding.

[8] Revised Regulatory Proposal, Attachment C11, pages 6 to 12.

Complementing the benchmarking analysis			
51	We have sought evidence from ActewAGL to support its claim that, in its business context, its labour levels are prudent, to further inform our assessment.	It is unclear what this paragraph means. It suggests that EMC[a] has asked ActewAGL Distribution for evidence. However, EMC[a] appears to have limited its 'seeking' of evidence from ActewAGL Distribution to the AER's findings and a selection of reports by ActewAGL Distribution's consultants that have been taken out of context.	EMCa has relied upon information that ActewAGL has selectively provided to the AER, including information provided in response to inquiries made to ActewAGL by the AER. The information request protocol did not involve EMCa directly approaching ActewAGL for information. We have been advised by the AER that it asked ActewAGL on 27 Aug 2014 for all: *1. 10 year plans (or equivalent)* *2. workforce plans (or equivalent)* 3. *peak resourcing strategies (or equivalent) and* 4. *the business plans (or equivalent) ActewAGL provides to the ACT government each year.*

57	We consider that the Workforce Plan includes a number of issues that when considered together indicate systemic issues that have led to inefficient costs: (i) The environmental scan does not reflect the paradigm shift across the industry that was occurring at that time: among other things, there was a growing concern regarding the contribution of electricity network costs to rising electricity prices from 2010 onwards (if not earlier). There were state and federal inquiries, and repeated and increasing calls from politicians, customers, and customer representative groups to reduce the impact of network expenditure on electricity affordability. We consider that if ActewAGL had refreshed its strategy comprehensively in 2010, and/or in 2011 and 2012, it would have recognised in its resource planning that: • Labour cost reductions were required – in fact ActewAGL recognised in 2010 that its labour costs were above 'what regulators are comfortable with' and that they would need to 'contain these costs within the next three years,' and • Other utilities were embarking on aggressive opex reduction programs, which would indicate the need to review and refresh its own resource planning assumptions. We believe that prudent executive management and/or Board should have considered reasonable alternatives to the 'internal labour strategy' adopted by ActewAGL. If ActewAGL's objective was to 'contain costs', it is apparent that it did not succeed (or was not succeeding).	The findings in paragraph 51 demonstrate a misunderstanding of ActewAGL Distribution's operating environment and incorrectly assume that issues that existed in NSW apply equally to the ACT/ActewAGL Distribution. In any event, the most that can be properly concluded by reference to the aspects of the Workforce Plan relied upon is that the Plan does not evidence the efficiency of ActewAGL Distribution's ASL and labour strategies. It does not evidence a conclusion that the ASL and strategies are inefficient. To the extent that EMCa seeks to suggest otherwise, its conclusions are mere assertion. The quote from ActewAGL Distribution in the first bullet point of paragraph 57(i) has been taken out of context. This is from ActewAGL Distribution's EBA bargaining mandate[9] in the context of 'Market and competitive issues or any other economic or financial matters facing the company prior or over the duration of the EA', referring to ActewAGL Distribution's expectations of the mounting pressure on the AER to contain energy prices, and the position it will take on DNSP's proposals in response to this pressure. In any event, the ActewAGL Distribution observations referred to and relied upon by EMCa in this paragraph have no direct bearing on the efficiency or otherwise of its operating expenditure labour costs in the 2012/13 base year. EMCa's reference to and reliance upon them is argumentative and consistent with ActewAGL Distribution's concerns, expressed at the outset, that EMCa is, at least at times in its report, performing the role of advocate, not independent expert. EMCa's statement about what 'prudent executive management and/or Board' should have done, and ActewAGL Distribution's failure to contain costs once again shows gross ignorance and oversimplification of the complex industrial bargaining environment and legal framework within which ActewAGL Distribution negotiates its EBA. As to these matters, see the legal opinion of Mr Catanzariti of DLA Piper discussed in the submission and now adduced in response to EMCa's report.	EMCa has utilised, and relied upon, information from the sources that ActewAGL refers to. EMCa does not accept the notion that clear and unambiguous statements made in ActewAGL documents, which were prepared for purposes other than for its regulatory proposal, are not relevant in forming an opinion. EMCa personnel have extensive experience in operational and managerial roles in electricity utilities, and also in senior roles focused on the electricity industry in local and major global consulting practices. We hold that we have the expertise and experience to support our professional opinions on prudent management decisions in electricity utilities. We have reviewed the letter provided by Mr Catanzariti. This letter does not appear to refute any matter that EMCa has relied upon to form our opinion.

	Again, we consider that this should have prompted a review of its 'internal labour' strategy;	Additionally, EMC^a has shown no regard to the labour market within which ActewAGL Distribution was operating in at this time, as outlined in attachment C11 of the Revised Regulatory Proposal, in terms of the supply of appropriate skilled labour and the supply of appropriate contractors.[10]	

[9] ActewAGL Distribution, 2011 *Enterprise agreement bargaining business case and mandate,* page 2.

[10] Revised Regulatory Proposal, pages 13 to 16.

57(ii)	The Workforce Plan considers only two scenarios – both of them growth scenarios, with one being the current upward trend and the second a much higher growth rate. If the Plan had been refreshed in 2011 and 2012, we believe that prudent executive management and/or Board consideration of reasonable alternatives would result in reduction of its growth rate assumptions (towards zero), consistent with the actions of other NSPs and in response to the changing industry context described above. ActewAGL has presented a strategy based upon steadily growing staff numbers to meet a steadily growing workload and that is the path ActewAGL has followed. This path has led to significant cost increases;	EMC[a] assumes that ActewAGL Distribution's growth in full time employees (**FTEs**) has resulted in excess resources, rather than considering whether it resulted in an efficient staffing level (i.e. whether it has previously been under-resourced). In concluding in particular that, if ActewAGL Distribution revisited the 2010 Workforce Plan in 2011 or 2012, it would have reduced its growth rate assumptions towards zero, EMC[a] disregards SKM's independent, expert opinion on the resourcing required to deliver the 2012/13 program of works dated 27 March 2012, which relevantly concluded that ActewAGL Distribution then had a forecast average workforce shortfall throughout 2012/13 which posed risks to the delivery of its Program of Works for 2012/13.[11]	EMCa's draft report sought to convey what we consider to be a lack of assessment by ActewAGL of alternatives to a long term continuous growth outlook. Our primary contention is that an alternative to continual growth of internal resources (i.e., ASL) should have been considered, but was not. In the absence of ActewAGL's consideration of alternatives, and clear evidence of other DNSPs achieving cost-efficiencies from outsourcing strategies, we found that ActewAGL's internal resourcing strategy was likely to have resulted in excess resources. The final report has been modified accordingly.
57(iii)	(The demand forecast is based on an underlying assumption (without justification or reference to where the assumption is supported by analysis) that work will increase inexorably, with step changes likely to come from 'roll-out of smart grid, solar farms, electric vehicles, and non ActewAGL Distribution activities.' This appears to be highly speculative in the absence of analysis and yet it is used to underpin the growth outlook. We consider this is further evidence of a bias to increase the ASL;	EMCa has again taken an internal ActewAGL Distribution document[12] out of context in claiming this supports the AER's claims, suggesting that it is performing the role of advocate, not independent expert. This statement is not relevant to an assessment of the efficiency of ActewAGL Distribution's opex in the 2012/13 base year, as it relates to non-regulated activities and any increases in ASL attributed to these activities would not be counted as electricity distribution FTEs or, thus, reflected in ActewAGL Distribution's base year opex.	EMCa relied on the information provided in ActewAGL's report that was construed to support its long term growth outlook. It was not clear in the report that the roll-out of smart grid, solar farms, and electric vehicles was being attributed to non-regulated activities. As ActewAGL has clarified that it was referring only to non-regulated activities and the activities would not impact on electricity distribution FTEs, we have modified our draft report.

[11] SKM, *Resource Planning To deliver ActewAGL's Program of Works for the FY2012/13 Final Report*, 27 March 2012.

[12] ActewAGL Distribution, Workforce Plan 2010 – refresh, pages 10 to 11

57(iv)	Its supply strategy is narrow in that it appears to be based solely on an internal growth strategy without any reference to increasing external supply. The Workforce Plan is an internal workforce plan that does not consider strategic options such as market based supply models (nor does it draw from other documents that consider them). There is no evidence that ActewAGL gave any consideration to a complementary delivery strategy in formulating its Workforce Plan, nor does it reference and draw upon such work developed and implemented elsewhere, and therefore we assume this analysis has not been undertaken by ActewAGL. We further contend that prudent executive management and/or Board consideration of reasonable alternatives would result in the analysis of a more 'balanced' approach to internal and external resourcing. We also believe that, if successfully deployed, it would have resulted in lower levels of highly paid staff with the appropriate skills at a lower total cost. This analysis would necessarily have tested the purported limitations on securing additional cost-effective external labour and if it was found to be unworkable, then the internal resourcing strategy would have been supported.	This statement is unsubstantiated. Further it is made without any knowledge of the Canberra job market within which ActewAGL Distribution operates,[13] nor knowledge of the distribution business and its complex industrial relations environment (as to which see the conclusions regarding the efficiency of outsourcing in ActewAGL Distribution's circumstances in its report[14]).	EMCa personnel have extensive experience in operational and managerial roles in electricity utilities, and also in senior roles focused on the electricity industry in local and major global consulting practices. We hold that we have the expertise and experience to support our professional opinions on resourcing strategies in electricity utilities. We took into account the advice from Advisian in deriving our initial report. We consider that ActewAGL did not provide any new information to support its claims that EMCa's opinions are invalid or unsubstantiated. Our experience is that reliance on a predominantly internal workforce is unlikely to result in the best balance between cost and risk over time. .

[13] Revised Regulatory Proposal, page 12.

[14] Advisian, *Opex cost drivers: ActewAGL Distribution Electricity (ACT)*, January 2015 (attached to the Revised Regulatory Proposal as Attachment C2).

Resource Planning for ActewAGL program of work 2012/13			
59	SKM did not make any recommendations about strategies to increase access to resources without increasing the number of staff.	EMC[a] has used the SKM report out of context and does not appear to have considered it against what eventuated in 2012/13. Once again, EMCa has drawn this conclusion from the report without demonstrating any understanding of the business or the complexities of its operating environment. Further, EMC[a] provides no evidence to demonstrate that higher levels of outsourcing would deliver more efficient expenditure.	This sentence is a statement of fact that ActewAGL has not refuted.
Lack of scale economies			

63	We note that ActewAGL argues in its response that, as a relatively small DNSP, it requires relatively more personnel to undertake activities compared to a larger organisation. We consider that the strategy selected by ActewAGL promotes the option of seeking additional personnel. Based on our experience we believe that ActewAGL should have pursued some form of strategic sourcing to access greater economies of scale, potentially with large suppliers. For example, this may have been explored in conjunction with NSW DNSPs.	EMC[a] does not detail or substantiate how ActewAGL Distribution could have pursued the 'strategic sourcing' referred to this paragraph. EMC[a] fails to consider or address the analysis, reasoning and conclusions of Advisian in its report concerning the efficiency of outsourcing in ActewAGL Distribution's circumstances.[15] In particular, in contending that ActewAGL Distribution could have explored such strategies, EMC[a] has no regard and does not respond to the difficulties of ActewAGL Distribution undertaking a strategic sourcing strategy, including in particular one with NSW DNSPs, identified in that report. This is an illustration of ActewAGL Distribution's contention in its submission that EMC[a] has selective regard to the contentions and evidence of relevance to any assessment of the efficiency of ActewAGL Distribution's labour practices and costs. EMC[a] fails to provide any evidence or examples of either the authors' experience, or the authors' assessment of the local market.	We revisited Advisian's advice regarding the efficiency of outsourcing in ActewAGL's circumstances. We do not agree with Advisian's statement that "*the question of whether network Opex or Capex tasks are carried out by internal or external labour is largely irrelevant to the efficiency of the outcome.*"[16] We have provided examples from publically available sources to support our view that there are strategic and operational efficiency benefits from outsourcing. We accept ActewAGL's and Advisian's advice that the contracting market in the ACT is not 'deep' and we offer some examples of how ActewAGL might have been able to overcome this constraint. Our key point is that ActewAGL did not provide evidence to demonstrate that it explored outsourcing options other than a predominantly internal resource growth strategy.

Summary	

[15] Advisian, *Opex cost drivers: ActewAGL Distribution Electricity (ACT)*, January 2015 (attached to the Revised Regulatory Proposal as Attachment C2).

[16] Advisian, *Opex cost drivers: ActewAGL Distribution Electricity (ACT)*, January 2015 (attached to the Revised Regulatory Proposal as Attachment C2), p. 96

64	In our view, staffing levels should be determined as a part of a comprehensive strategic resourcing analysis. Given ActewAGL's operating environment, we would expect that options to reduce operational cost and risk would have been fully explored, including by considering alternatives to a business-as-usual steady increase in the ASL. In the absence of such analysis, we remain unconvinced that ActewAGL's ASL is optimal, with the strong indication that it is too high given the (relatively) high training and fixed costs associated with the internal resourcing strategy.	ActewAGL Distribution does not consider the authors to be qualified to make such a broad statement. In addition, ActewAGL Distribution observes that this statement is not substantiated by reference to any evidence, reasoning or analysis and, for this reason, should be accorded little (if any) probative weight. In particular, EMCa's report does not disclose any meaningful consideration of ActewAGL Distribution's operating environment, including in particular the aspects of that operating environment considered by Advisian in reaching its conclusions regarding the efficiency of outsourcing in ActewAGL Distribution's circumstances in its report.[17] It is difficult for ActewAGL Distribution to understand how EMCa can conclude that its ASL is excessive based on the narrow review it has performed[18] and notwithstanding the findings reached by Advisian to the contrary in its detailed and substantiated expert report.	EMCa personnel have extensive experience in operational and managerial roles in electricity utilities, and also in senior roles focused on the electricity industry in local and major global consulting practices. We hold that we have the expertise and experience to support our professional opinions on prudent management decisions in electricity utilities.
Inefficient labour costs			
Consideration of EBA provisions			

[17] Advisian, *Opex cost drivers: ActewAGL Distribution Electricity (ACT)*, January 2015 (attached to the Revised Regulatory Proposal as Attachment C2).

[18] ActewAGL explains the flaws in the AER's benchmarking analysis with respect to labour at pages 6 to 13 of its Revised Regulatory Proposal

66	This occurred despite ActewAGL recognising in 2010 that its labour costs were above *'what regulators are comfortable with'* and that they would need to *'contain these costs within the next three years*'.	EMC[a] appear to assert in agreement with the AER that the increase in ActewAGL Distribution's total real labour costs and total employees in the period 2011-14 inclusive and that they were higher than the NEM DNSP average in 2012/13 'occurred despite ActewAGL recognising in 2010 that its labour costs were above *'what regulators are comfortable with'* and that they would need to *'contain these costs within the next three years*'. The ActewAGL Distribution observations referred to and relied upon by EMC[a] in this paragraph have no direct bearing on the efficiency or otherwise of its operating expenditure labour costs in the 2012/13 base year. EMC[a]'s reference to and reliance upon them is argumentative and consistent with ActewAGL Distribution's concerns, expressed at the outset, that EMCa is, at least at times in its report, performing the role of advocate, not independent expert.	EMCa considers it reasonable to infer from these statements that ActewAGL considered that a regulator would not consider its costs to be efficient and that by containing its costs it could more reasonably be considered efficient. We consider that ActewAGL's views provide information that is relevant to our assessment.

73	We have reviewed the new information provided by ActewAGL in relation to its comparative analysis of the DNSPs' EBA provisions. In our view: (i) ActewAGL's EBA contains hurdles to effective workforce planning and management; (ii) ActewAGL's industrial relations issues are not unique to ActewAGL, as many of the DNSPs also have EBAs with similar restrictions; (iii) A number of the DNSPs, including ActewAGL, have demonstrated that the hurdles are not insurmountable; (iv) Unlike other DNSPs who have successfully pursued a strategy of outsourcing a greater portion of their work, ActewAGL does not appear to have vigorously pursued a similar strategy. As discussed above, we have not seen compelling evidence that ActewAGL thoroughly tested the assumption that a greater proportion of outsourcing would result in lower overall operational costs nor that ActewAGL explored all possible avenues to overcome the relevant EBA restrictions; (v) Actew's redundancy payment terms resulted in high payments, particularly in 2011/12 and contributed $0.6m to ActewAGL's 2012/13 labour costs.	ActewAGL Distribution observes at the outset that, whereas the AER's conclusions that ActewAGL Distribution's labour costs in 2012/13 were inefficient was (at least in part) premised on it having more onerous EBA provisions concerning outsourcing and redundancies than other NEM NSPs, EMCa would appear to have accepted the views expressed by ActewAGL Distribution in the Revised Regulatory Proposal in reliance on ABLA's report[19] that ActewAGL Distribution's EBA conditions concerning outsourcing, redundancy and business change are no more onerous than those of other NEM DNSPs. Nonetheless, EMCa implies that the fact that ActewAGL Distribution's EBA contains hurdles to effective workforce planning and management and requires high redundancy payments for involuntary redundancies is evidence of labour cost inefficiency. As discussed in the submission, ActewAGL Distribution maintains that any of its EBA conditions that limit workforce flexibility are a consequence of the constraints under which it operates, and its resultant bargaining position, in EBA negotiations and, accordingly, the cost consequences of such conditions reflect the costs it requires, acting efficiently and prudently, to achieve the operating expenditure objectives and thus satisfy the operating expenditure criteria set out in clause 6.5.6(c) of the Rules. Further, in implying that the fact that other DNSPs' EBAs have not precluded them from outsourcing to a greater degree than ActewAGL Distribution and that the absence of compelling evidence from ActewAGL Distribution that outsourcing would not result in lower overall operational costs is evidence of labour cost inefficiency, EMCa has failed to consider and respond to the conclusions of Advisian concerning the efficiency and practicability of outsourcing in ActewAGL Distribution's circumstances.[20] This illustrates the concern regarding the selective regard by EMCa to the contentions and evidence of relevance to an assessment of the efficiency of ActewAGL Distribution's operating expenditure labour costs in 2012/13 that ActewAGL Distribution raises in its submission.	As our paragraph 73 indicates, we have considered and responded to Advisian's position.

74	Considering redundancy payments at a business level, we would expect redundancy payments to have been made on the basis of future net benefits accruing from them (ie. it is a self-funding initiative derived from not replacing the subject staff). We are not aware of such a business case, and even if there were one, from the ensuing steady increase the ASL and staff costs, it does not appear that the redundancies were offset over the ensuing years by savings.	The increase in ASL and staff costs averted to by EMCa does not evidence its conclusion that the costs of ActewAGL Distribution's redundancies in the 2009/10 to 2013/14 regulatory control period were not offset by cost savings in the subsequent years. EMCa's conclusion that redundancy costs were not offset by resultant cost savings is conjecture.	ActewAGL did not provide any new evidence to support its assertions. We formed our views based on the material provided to us.

[19] ABLA, *Review and comparison of ActewAGL's Enterprise Agreement Provisions Against Other Electricity Network Service Providers*, January 2015 (attached to the Revised Regulatory Proposal as Attachment C72).

[20] Advisian, *Opex cost drivers: ActewAGL Distribution Electricity (ACT)*, January 2015 (attached to the Revised Regulatory Proposal as Attachment C2).

79	We are of the view that a resourcing strategy based on more outsourcing (ie. rather than ASL growth) would have provided ActewAGL with more resource (and cost) flexibility, which is likely to lead to more efficient costs overall, on the basis that: (i) This strategy was been deployed by other DNSPs prior to or within the same time period; (ii) The various utilities all report various degrees of success in reducing overall costs; and (iii) Other DNSPs throughout Australia have recognised the benefits of outsourcing through competitive tension, the transfer of good practices, and collaborative approaches to innovation to reduce total cost and are progressively adopting more outsourcing as a core works delivery strategy.	This view is only supported by later reference to examples of savings for Jemena, Energex and Powercor/CitiPower, but does not give consideration to ActewAGL Distribution's operating environment. This is notwithstanding that EMC[a] expressly acknowledges (at [82]) that '[a] prudent operator will make its business decisions in the context of its own business objectives, environmental context and strengths and weaknesses'. Whereas the DNSPs referred to by EMC[a] are all in large, densely populated areas, ActewAGL Distribution is geographically remote and not co-located within another network, and those other DNSPs are not exposed to the same labour supply issues as ActewAGL Distribution. EMC[a]'s failure to have proper regard to ActewAGL Distribution's particular circumstances in reaching its conclusion is the result of its failure to properly consider and respond to the conclusions reached by Advisian in its report concerning the efficiency of outsourcing in ActewAGL Distribution's circumstances including in particular as a consequence of the unique characteristics of its operating environment.[21]	Our experience and the examples of savings from outsourcing (from the public domain) contradict Advisian's advice that there is unlikely to be any net benefit to ActewAGL of outsourcing. ActewAGL did not provide evidence to demonstrate that it considered the outsourcing option and subsequently determined it to be imprudent and inefficient compared with the selected internal resourcing approach.

[21] Advisian, *Opex cost drivers: ActewAGL Distribution Electricity (ACT)*, January 2015 (attached to the Revised Regulatory Proposal as Attachment C2).

81	Our reading of the arguments for this assertion is that it is based on the authors' experience, and not supported by evidence from ActewAGL. Furthermore, it is contrary to our experience and belies the claims from several DNSPs in public documents that they have successfully pursued outsourcing strategies.	The assertion that Advisian's conclusion 'is based on the author's experience, and not supported by evidence' is surprising given that a large number (if not the greater majority) of the conclusions advanced in the EMC[a] report are in the nature of assertions unsubstantiated by evidence, reasoning or analysis, often on the expressly stated basis of the author's claimed experience. This includes EMC[a]'s very next assertion in this paragraph that Advisian's conclusion is 'contrary to our experience'. In any event, Advisian sets out the basis for the conclusion in its report to which EMC[a] refers here (see, for example, pages 87, 93, 97 and 98 of that report), including by reference to the circumstances of ActewAGL Distribution that relevantly distinguish it from other NEM DNSPs. EMC[a] fails to respond to the matters advanced in support of Advisian's conclusion in its report, relying instead on its own experience and the experience of other NEM DNSPs. This is notwithstanding that EMC[a] expressly acknowledges (at [82]) that '[a] prudent operator will make its business decisions in the context of its own business objectives, environmental context and strengths and weaknesses'. Further, ActewAGL Distribution observes that its experts, Advisian, are suitably qualified and experienced to present such a view.	We have identified that our view differs from the view advanced by Advisian and provided supporting rationale. ActewAGL did not provide evidence to demonstrate that it reasonably considered the option of outsourcing.

84	We have considered ActewAGL's claims, mindful of the particular circumstances facing ActewAGL: (i) *As a prudent operator, ActewAGL makes decisions on sourcing labour based on its individual circumstances* - as discussed above, we have not seen evidence of the analysis that we would expect a prudent and efficient service provider to undertake as a basis for the decision;	ActewAGL Distribution maintains that it undertakes appropriate analysis of labour sourcing, including consideration of whether new roles can be served by existing or contract labour (within the bounds of the EA). With regard to the EBSS, ActewAGL Distribution observes that EMC[a] merely asserts that 'the existence of an incentive does not necessarily translate to efficient performance' without advancing any evidence, reasoning or analysis in support of that view, it does not appear to be	ActewAGL did not provide any information to address the substance of the matters referred to in these paragraphs. EMCa personnel have extensive experience in operational and managerial roles in electricity utilities, and also in senior roles focused on the electricity industry in local and major global consulting practices. EMCa personnel also have over 30 years of experience in regulatory economics, including foundation experience developing the application of incentive-based regulation to electricity networks. We hold that we have the expertise and experience to support our professional opinions on management and regulatory matters in electricity utilities.

	(ii) *Its EBSS has had appropriate incentives in place to ensure efficient operation* - in our view the existence of an incentive does not necessarily translate to efficient performance; (iii) The existence of different levels of outsourcing in various DNSPs does not determine the efficiency of one model or structure over another[58] - the AER pointed to the strong correlation between superior benchmarking performance and the level of outsourcing (ie. high) of various DNSPs. Our view is that the decision of various DNSPs to outsource and to share resource for a significant proportion of work has been supported by claims of significant operational efficiencies. (iv) The existence of related party contracts is referred to by ActewAGL presumably by way of seeking to discredit the claims of efficiency gains. Interestingly, Jemena Asset Management manages ActewAGL's gas business network as well as Jemena's distribution assets. We acknowledge the concern over related party issues however, while noting ActewAGL's gas business uses this approach, in our experience *if* established and managed well, significant benefits can accrue to the DNSP.	qualified to express a view on the efficacy of the EBSS and Houston Kemp (which does possess the necessary qualifications) advances contentions to the contrary in its report and, in so doing, discloses the basis for those views.[22] As previously stated, the examples provided of outsourcing levels for other NEM DNSPs do not take account of ActewAGL Distribution's operating environment. These DNSPs are all in large, densely populated areas and are not exposed to the same labour supply issues as ActewAGL Distribution. With regard to related party contracts, EMCa's presumption that ActewAGL Distribution seeks to discredit efficiency gains through related party contracts is incorrect. Obviously, ActewAGL Distribution considers related party contracts can deliver efficient outcomes, otherwise it would not adopt this approach for its gas network, but it does not consider this to serve as evidence that a labour sourcing strategy using internal labour is not efficient for its electricity network. In its Revised Regulatory Proposal in reliance on the Advisian report,[23] ActewAGL Distribution expressly addressed the reason why the outsourcing model adopted for ActewAGL Distribution's gas network is not practicable and would not deliver efficiencies for its electricity network. EMCa does not consider or respond to that explanation.	

[22] Houston Kemp, 2015, *Opex and the efficiency benefit sharing scheme,* January (attached to the Revised Regulatory Proposal as Attachment C1).

[23] Revised Regulatory Proposal, Attachment C11, page 16; Advisian, *Opex cost drivers: ActewAGL Distribution Electricity (ACT)*, January 2015 (attached to the Revised Regulatory Proposal as Attachment C2), pages 97-98.

85	Simply moving to an outsourcing arrangement is no guarantee of reduced costs and risks. Cognisant of the key success factors in strategic outsourcing, we believe ActewAGL could have considered: (i) Partnering with NNSW DNSPs (particularly Essential Energy) to explore strategic outsourcing arrangements (ie. to increase its scale from the 'demand' side); (ii) Exploring collaborative, performance based out-sourcing arrangements, with large suppliers, to draw on scale economies from the supply side); (iii) Exploring ways of overcoming perceived inefficiencies with using contract labour, including models that enable supplier(s) to more efficiently manage utilisation of their resources. Typically, supplier productivity can be diminished (and costs therefore increased) where: • The client packages the work, rather than the supplier; • The client and supplier have different or mis-aligned approaches for delivering/receiving and scheduling work packages; and • The client suddenly changes priorities and/or required outcomes, requiring contractors to reschedule resources.	In asserting that ActewAGL Distribution could have considered strategic outsourcing of the kind detailed in sub-paragraphs (i)-(iii), EMC^a fails to consider or address the analysis, reasoning and conclusions of Advisian concerning the efficiency of outsourcing in ActewAGL Distribution's circumstances in its report .[24] In particular, in contending that ActewAGL Distribution could have explored such strategies, EMC^a has no regard and does not respond to the difficulties of ActewAGL Distribution undertaking a strategic sourcing strategy, including in particular one with NSW DNSPs, identified in that report in its particular circumstances. This is an illustration of ActewAGL Distribution's contention in its submission that EMC^a has selective regard to the contentions and evidence of relevance to any assessment of the efficiency of ActewAGL Distribution's labour practices and costs.	As previously stated, ActewAGL did not provide evidence to demonstrate that it reasonably considered the option of outsourcing.
Efficiency of ActewAGL's 2012/13 labour costs			

[24] Advisian, *Opex cost drivers: ActewAGL Distribution Electricity (ACT)*, January 2015 (attached to the Revised Regulatory Proposal as Attachment C2).

86	We find that: (i) Many of the DNSPs in the NEM, including ActewAGL have restrictions of some form on the use of contractors; (ii) ActewAGL's work practices, systems and processes were inefficient in 2012/13, contributing to higher than necessary labour costs; and (iii) ActewAGL has not demonstrated conclusively that outsourcing was not viable	In response to the implication in paragraph 86(i) that the existence of EBA restrictions on outsourcing evidences the existence of labour cost inefficiency, ActewAGL Distribution refers to and repeats its contentions above to the effect that the existence of EBA restrictions on outsourcing is a product of the constraints operating on NEM DNSPs, including ActewAGL Distribution, and their resultant bargaining positions, in EBA negotiations, with the consequence that their resultant labour costs represent the costs required by those DNSPs, acting efficiently and prudently, to achieve the operating expenditure objectives. Paragraph 86(ii) is advanced in reliance on the findings in section 3.2 of EMC[a]'s report and, accordingly, ActewAGL Distribution refers to and repeats its response above to that section of the report in response to that paragraph 86(ii). In response to paragraph 86(iii), ActewAGL Distribution refers to and repeats its contentions above to the effect that EMC[a] has not given any meaningful consideration or responded to the analysis and conclusions of Advisian in its report relied on by ActewAGL Distribution in the Revised Regulatory Proposal, in reaching conclusions of the kind set out in that paragraph 86(iii).[25]	As previously stated, ActewAGL did not provide evidence to demonstrate that it reasonably considered the option of outsourcing. The Advisian report is dated 15th January 2015. Accordingly, ActewAGL could not have relied on this report in considering the merits of an outsourcing strategy in the 2012/13 base year. We have modified our draft report to reflect the new information provided by ActewAGL.
87	We also find that ActewAGL: (i) Followed a predominantly internal resourcing strategy, despite the admitted difficulty in recruiting and retaining quality staff (ie. rather than sharing that risk with competent external providers, whose expertise includes effective resource management) with the likely consequence of pushing up overall staff costs through the salary and wage provisions; (ii) Increased its 'fixed costs' or at least 'break costs' with a ramp-up of FTEs through a resolute adherence to the internal sourcing strategy given the provisions of the EBA; (iii) Increased the number of FTEs with no changes to the EBA requirements and in doing so maximised its fixed costs[67] and imposed a high management overhead in reversing the strategy; and (iv) There is evidence of inefficient management decisions in the past leading to redundancies but without evidence of net reductions in costs, leading to higher overall labour costs in 2012/13.		

[25] Advisian, *Opex cost drivers: ActewAGL Distribution Electricity (ACT)*, January 2015 (attached to the Revised Regulatory Proposal as Attachment C2).

Assessment of vegetation management practices			
Introduction			
93	In broad terms, ActewAGL identified four flaws with the AER's draft decision in relation to vegetation management: (i) The AER has not provided evidence to support its assertion that the lack of properly constructed outsourcing arrangements led to inefficient vegetation management costs; (ii) The AER claims without evidence that ActewAGL could reduce its costs with more proactive vegetation management; (iii) The AER's claim that vegetation management performance deteriorated fails to take into account the increase in vegetation growth over the period; and (iv) The AER did not assess ActewAGL's proposed vegetation management expenditure, but the base year opex of its own construction – it should have excluded the 2012/13 pass through amount.	EMCa fails to respond in its report to ActewAGL Distribution's contention set out in paragraph 93(iv). Rather, like the AER, EMCa's analysis focuses on the efficiency of the $1.85 million pass through amount. The conclusions of EMCa predominantly relate to that pass through amount. Because of the circumstances surrounding the incurring of that pass through amount, being for increased vegetation management expenditure as a result of an uncontrollable and unexpected increase in vegetation growth rates which followed above average rainfall in the ACT,[26] any conclusions regarding the efficiency of the $1.85 million reveal nothing about the efficiency of the remaining $3.55 million expenditure which represents ActewAGL Distribution's 'business as usual' vegetation management expenditure in the 2012/13 base year.	We provided additional commentary on BAU vegetation management in our final report. In summary, we find that: ActewAGL has an appropriate contracting strategy based on: (a) competitive tendering; and (b) a 'hybrid' contract structure (lump sum + hourly rates); and Actew AGL's vegetation management outcomes of reduced SAIDI impacts from vegetation (despite an increased fault rate) indicate it is targeting its cutting activity appropriately.

[26] ActewAGL 2013, *Vegetation management cost pass through*, November.

95	As many of the issues that applied to the discussion in Section 3 about labour costs, applies to vegetation management, we have sought not to repeat detail, instead referring the reader to Section 3.	Section 3 is not referred to in Section 4. Accordingly, it is not clear to ActewAGL Distribution what (if any) reliance is placed by EMC[a] on the discussion in Section 3 in reaching its conclusion on the efficiency of vegetation management expenditure in the base year in Section 4. ActewAGL is therefore unable to respond to the reliance placed by EMC[a] on Section 3 for this purpose.	We have modified the reference to section 3 in the draft Report
Lack of properly constructed outsourcing arrangement			

98	A summary of ActewAGL's response is that: (i) It employs vegetation clearance contractors through a combination of lump sum and hourly rates and its own staff for ground inspections. (ii) The AER's use of information from the TAG, GHD's expert report for Aurora Energy, and an Essential Energy document is flawed because: • The GHD and Essential Energy reports are taken out of context; The TAG report does not support the AER's contention that hourly rate contracting arrangements are typically only for emergency work; • Essential Energy performed well using the AER's preferred benchmarking approach (per Fig A.16); and • All DNSPs south of and including Essential Energy have experienced significant vegetation management expenditure increases over 2009-13, indicating costs are not due to individual DNSP contracting policies. (iii) Increasing contractor costs are not a major contributor to increased vegetation management costs.	ActewAGL Distribution also responded that: 1. GHD's expert report for Aurora expressly warns against comparisons of the contracting models of other distribution businesses in assessing efficient contracting model for a particular DNSP;[27] and 2. Essential Energy's documentation is specific to Essential Energy's circumstances and does not take into account details which GHD states are required for meaningful cost comparisons.[28]	We have included these positions in the final report. We do not rely upon GHD's report for Aurora or Essential's documentation. ActewAGL's response appears not to refute any aspect of EMCa's summary in this regard.

[27] Revised Regulatory Proposal, Attachment C11, page 29.

[28] Revised Regulatory Proposal, Attachment C11, page 33.

102	We observe that ActewAGL was most likely applying the 'hybrid' approach described by Jacobs prior to its declared emergency clearance response. Based on our experience and the information submitted by ActewAGL in its response to the draft decision, it is reasonable to conclude that the hybrid approach, as deployed by ActewAGL, is appropriate to respond to foreseen levels of vegetation growth. This infers that the majority of the expenditure is undertaken on a lump sum basis as this provides a share of risk between ActewAGL and its supplier to achieve efficient costs. Hourly rates are only used to respond to unforeseen conditions that require urgent clearance. However, the appropriateness of this approach depends on what constitute 'unforeseen conditions' and 'emergency work'.	EMC^{a}'s conclusion that the approach deployed by ActewAGL Distribution is appropriate to respond to foreseen levels of vegetation growth supports ActewAGL Distribution's position that its revealed cost vegetation management expenditure (which removes the amount the subject of its 2013 pass through application) - that is, its $3.55 million of 'business as usual' vegetation management expenditure in the 2012/13 base year - is prudent and efficient.	From the information provided and from our experience, we conclude that ActewAGL's resourcing approach ('hybrid') for planned or 'business as usual' vegetation is appropriate. This finding does not mean that its base year expenditure was necessarily prudent and efficient.
103	We consider that using hourly rates to respond to emergency work is appropriate.	ActewAGL Distribution agrees with this statement and observes that it is consistent with Jacobs Group's conclusion with respect to emergency work.[29]	Noted.
104	We considered the question: *if ActewAGL had identified the risk of the impending higher vegetation growth rate much earlier than it did, would it have been able to arrange a more measured and more cost effective contracting approach?*	The question considered by EMC^{a} is premised on ActewAGL Distribution having an ability to identify the growth rate earlier. As set out in the response to paragraph 127 below, ActewAGL Distribution was not able to identify the growth rate earlier.	We consider that the breaking of the ACT drought, with significantly above annual rainfall was discernable and that the impact of such rainfall on vegetation growth rates should have been considered in advance as part of ActewAGL's prudent risk management.

[29] Revised Regulatory Proposal, Attachment C11, page 32; ActewAGL Distribution, 2014, *Vegetation management cost pass through application, ActewAGL response to AER draft determination,* June, Attachment 1 letter from Cliff Jones of Jacobs Group dated 17 June 2014.

105	As discussed in section 4.3, we believe that ActewAGL would have been able to arrange a more measured and more cost effective contracting approach had it identified the risk of the impending higher vegetation growth rate much earlier than it did. We consider that ActewAGL would have been able to agree a fixed price or target cost incentive-based contract with its vegetation management supplier to undertake the higher volume of cutting work in a measured way at a lower total cost than the emergency response approach.	This conclusion is premised on ActewAGL Distribution having an ability to identify the growth rate earlier. As set out in the response to paragraph 127 below, ActewAGL Distribution, acting prudently, was not able to identify the impending higher vegetation growth rate earlier. In addition, ActewAGL Distribution notes the risks of fixed price contracting and refers to the experience of Western Power where the contractor could not deliver the extent of works required resulting in safety issues. Specifically, ActewAGL Distribution observes that risks of low productivity on the part of the vegetation contractor are not the sole risk in vegetation management of relevance to the choice of contracting approach. If vegetation clearance work exceeds what is provided for in fixed price contract arrangements, there is a risk that the contractor will not be able to deliver work that meets operational and safety requirements. Western Power faced this issue with its vegetation management contract arrangement in 2007, the details of which are as follows: *In early 2007, following a bushfire caused by vegetation contacting a line, it was apparent that the volume of vegetation control work required to meet operational and safety requirements was significantly higher than provided for in the contract. In addition, following a safety incident it became clear that more stringent work procedures than the contractor was currently using were required. As a result contact variations were required.* *The bushfire and safety incident highlighted risks with a single contractor arrangement and also indicated a need for Western Power to more closely control the work.* [30] ActewAGL Distribution's contractor management approach of using a supplier pool with competitive tension, specifying the extent of mechanisation and	See response to paragraph 104. We have modified the draft report to reflect our position more accurately (i.e., supplier(s)).

[30] Geoff Brown and Associates Ltd, *Review of expenditure governance Western Power prepared for the Economic Regulation Authority,* 14 July 2009, page 34.

108	We are not privy to the commercial terms entered into with ActewAGL's supplier, so we cannot comment on whether the contractual terms and form of 'relationship' has led to an effective and efficient arrangement for ActewAGL other than by looking at outputs such as the trends of cost and vegetation-caused outages and reliability impacts, which are discussed in section 4.4.	ActewAGL Distribution did not address the commercial terms of its contract in its Revised Regulatory Proposal as the AER's focus has been on the contracting model - that is, whether the contract was hourly rate or unit rate - not on the commercial terms of the contract. ActewAGL Distribution notes that in section 4.4 EMC[a] concludes that "…the decline in rural outages may indicate that vegetation clearance work undertaken in these areas was appropriate." Having regard to the favourable conclusion EMC[a] reached in section 4.4, it is reasonable to infer that the contractual terms and form of relationship that ActewAGL Distribution has with its vegetation management supplier have led to an effective and efficient arrangement for ActewAGL Distribution.	The reduced impact of vegetation incidents on network reliability is an indication that ActewAGL has been directing its contractors to higher risk/impact areas of its network. This is an indicator of prudent operation, but is not sufficient to conclude that its vegetation management practices are efficient.
Reactive Vegetation Management			
117	The AER found that: (i) ActewAGL took too long to identify and adjust its strategy to respond to the risk of increased vegetation growth, noting that there was evidence that vegetation growth was already increasing significantly in 2011-12, and (ii) ActewAGL did not monitor the volumes of work undertaken over the period.	In footnote 81 to paragraph 117(i) EMC[a] cites, for the finding referred to in that paragraph, the 'rise in the number of first notices issued, increasing contractor costs, the saturating rain in warmer months in 2010/11'. • Contractor costs had not changed significantly between 2010 and 2012;[31] and • Above average rain in December 2011 and February 2012 was followed by below average rainfall in subsequent months	ActewAGL is correct in its reproduction of footnote 81 in our draft report.

[31] For example, see the graph of supplier costs (including LiDAR) on page 30 of ActewAGL Distribution, 2014, *Vegetation management cost pass through application, ActewAGL response to AER draft determination,* June.

124	In its Revised Regulatory Proposal, ActewAGL discusses at length the current state of its vegetation management strategy and practices. However, we consider that these are not relevant to ActewAGL's handling of the record rainfall in 2010 and the efficiency or otherwise of ActewAGL's vegetation management costs in 2012/13.	EMCa provides no references to where in its Revised Regulatory Proposal ActewAGL Distribution discusses 'at length' the current state of its vegetation management strategy and practices and, as a consequence, it is unclear to ActewAGL Distribution what discussion is being referred to here. Rather, in Attachment C11 of its Revised Regulatory Proposal ActewAGL Distribution responds to the AER's analysis in respect of its 2012/13 vegetation management costs.	A reference has been added in the final report and includes our direct responses to Jacobs' finding that ActewAGL was proactive in its approach to vegetation management.
125	We have focused on the 'operational' aspects in paragraph 113, namely item (ii) and (iii), as we consider that items (i) and (v) are not relevant to this review as the pass through process that they are the subject of has been completed.	ActewAGL Distribution considers that the matters in paragraphs 113 (ii) and (iii) are also not relevant as they are concerned with assessing whether ActewAGL Distribution's claimed pass through event satisfied the relevant elements of the 'general nominated pass through event' definition for the purposes of its pass through application, which ActewAGL Distribution removes from its revealed costs in its Revised Regulatory Proposal.[32]	We consider that the information provided in items (ii) and (iii) of paragraph 113 is relevant in assessing the efficiency of ActewAGL's vegetation management practices, for the reasons set out in our report.
126	As ActewAGL has confirmed, and as illustrated in the graph below, the rainfall in 2010 was well above the annual average (approximately 70% above the average rainfall in 2004-2008).	As explained above and as is evident from the graph appearing in paragraph 126, the rainfall was well above the annual average in 2010/11 *and* 2011/12.	We agree that the rainfall was well above average in 2010/11 *and* 2011/12 and have modified the draft report accordingly.

[32] Revised Regulatory Proposal, page 40.

127	We believe that after many years of drought, the high rainfall would have been very noticeable to ActewAGL and that it should have been factored into its vegetation management strategy and plan in 2010/11 at the latest.	EMCA[a] gives no explanation or substantiation for its 'belief' that the high rainfall would have been very noticeable to ActewAGL Distribution and should have been factored into its vegetation management strategy and plan in 2010/11 at the latest. Indeed, this contention is difficult to understand given the average rainfall that caused the unanticipated growth occurred, in part, in 2011/12. In addition, in reaching this conclusion, EMC[a] fails to give consideration to Jacobs Group's findings or ActewAGL Distribution's pass through application. As ActewAGL Distribution explained in its Regulatory Proposal, the unexpected and uncontrollable increase in vegetation growth that was the subject of ActewAGL Distribution's pass through application[33] followed two very wet years in 2010/11 and 2011/12 not just in 2010. Specifically, ActewAGL Distribution stated:	ActewAGL's response appears to contradict its response to paragraph 126 above, which states that rainfall was well above average in 2010/11. EMCa has difficulty understanding how ActewAGL can reasonably assert that the breaking of a drought was not noticeable and that its likely effect on accelerated vegetation growth could not have been factored into relevant vegetation management plans. The fact that high rainfall continued into the following year does not alter this logic. Water makes plants grow.

[33] Regulatory Proposal, pages 218 and 220; Revised Regulatory Proposal, Attachment C11, page 40; ActewAGL Distribution 2013, *Vegetation management cost pass through*, November

		After a period of dry weather the ACT experienced two very wet years with annual rainfall ***in 2010/11 and 2011/12 reaching 867 mm and 778 mm respectively, well above the long term average of 620 mm and at a level not exceeded since 1988/89, over 20 years prior*** *The scale of vegetation growth and encroachment on clearance zones following these years of high rainfall was not apparent until ActewAGL Distribution's preparation for the 2012/13 bushfire season. ActewAGL Distribution's ground inspection crews and aerial surveys indicated that the higher rainfall had shortened the time taken for vegetation to regrow into clearance zones. Higher vegetation encroachment required ActewAGL Distribution to increase inspection activities and clear a greater volume of vegetation from clearance zones.* *The unexpected and uncontrollable increase in vegetation growth led to additional vegetation management (inspection and clearance) costs during the 2009–14 regulatory period above the allowance in the AER's 2009 final decision.*[34] [Emphasis added] Similarly, ActewAGL Distribution's pass through application discloses that evaluation of the monthly rainfall anomaly shows that the above average annual rainfall for 2010/11 and 2011/12 was largely driven by above average rainfall in December 2010, February 2011, February 2012 and March 2012.[35]	

[34] Regulatory Proposal, page 218.

[35] ActewAGL 2013, *Vegetation management cost pass through*, November, pages 8 to 9.

		ActewAGL Distribution noticed a higher level of vegetation encroachment relative to earlier years, as part of its monitoring of the progress of bushfire mitigation activities in July 2012 and commissioned an aerial survey of rural overhead assets in high bushfire risk zones.[36] EMCa does not consider Jacobs Group's findings that: *We have checked with our industry contacts, which includes a private vegetation management company (that has worked in all states of Australia), and they all confirm that to the best of their knowledge, no DNSP in Australia monitors rainfall (in an active continuous sense), and adjust pruning practice accordingly. To some extent this is what vegetation inspectors do intuitively, and ActewAGL's three year regrowth cutback is designed to accommodate.* *To suggest that a "prudent and efficient operator" does continuously monitor and respond to rainfall brings into question their* [Tag's] *whole understanding of the vegetation management process.*[37]	

[36] ActewAGL 2013, *Vegetation management cost pass through*, November, page 13.

[37] Revised Regulatory Proposal, Attachment C11, page 35; ActewAGL Distribution, 2014, *Vegetation management cost pass through application, ActewAGL response to AER draft determination,* June, Attachment 1 letter from Cliff Jones of Jacobs Group dated 17 June 2014.

		Further, EMC^{a} gives no consideration to Jacobs Group's finding that ActewAGL Distribution is pro- active in its approach to vegetation management as evidenced by the following elements of their vegetation management policies and practices:[38] • regular ground patrols on a defined cycle; • the practice of trimming back to allow for 3 years regrowth wherever possible; • the decision to undertake aerial patrols in 2011 and 2012 when ground patrols became difficult in some areas due to ground conditions; • the subsequent decision to program more regular aerial patrols, to complement ground patrols, and to further trial the implementation of LiDAR technology; • with the potential expansion of the use of LiDAR, ActewAGL Distribution is also considering the establishment of a geographical vegetation database of the span location, height of the trees and species of trees that are within and outside the approach distances of overhead line with the potential to cause interference; • targeted advertising campaigns to increase the awareness of vegetation requirements and responsibility for clearance; and • maintaining a list of suitable trees and shrubs that are suitable for planting near power lines. Again, EMCA^{a} fails to have regard to Jacobs Group's conclusion that no DNSP in Australia monitors rainfall and adjusts pruning practice accordingly and its response to the TAG report that to suggest that a 'prudent and efficient operator' does continuously monitor and respond to rainfall brings into question TAG's whole understanding of the vegetation management process.[39] This conclusion would apply equally to EMCA^{a}. In addition, ActewAGL Distribution observes it is not necessarily the case that higher rainfall results in increased vegetation growth. Whether or not it does is dependent on the interplay of a range of climactic, geographic and environmental factors.	

128	We consider that whilst accelerated vegetation growth, resulting from higher than average rainfall was not controllable by ActewAGL, however the extent of the impact on the network and the cost of mitigating the impact of vegetation on the network was controllable. Such control would have been an outcome of deploying good asset, risk and works program management practices.	EMCA[a] gives no substantiation or evidentiary basis for its conclusion. Further, its conclusion shows that while it has clearly had regard to the AER's decision on ActewAGL Distribution's pass through application, it has failed to have regard to the material submitted by ActewAGL Distribution in the pass through process. ActewAGL Distribution did take steps to mitigate the magnitude of the pass through event. Further, as set out above, Jacobs Group concluded that ActewAGL Distribution was pro-active in its approach to vegetation management.[40]	We confirm that we took into account the advice of ActewAGL and its consultants (from the information provided to us) in forming our opinion. Regarding mitigation steps, please see our response to paragraph 130 below.

[38] Revised Regulatory Proposal, Attachment C11, page 35; ActewAGL Distribution, 2014, *Vegetation management cost pass through application, ActewAGL response to AER draft determination,* June, page 16; Attachment 1 letter from Cliff Jones of Jacobs Group dated 17 June 2014, pages 5-6.

[39] Revised Regulatory Proposal, page 35; ActewAGL Distribution, 2014, *Vegetation management cost pass through application, ActewAGL response to AER draft determination,* June, Attachment 1 letter from Cliff Jones of Jacobs Group dated 17 June 2014.

[40] Revised Regulatory Proposal, page 35; ActewAGL Distribution, 2014, *Vegetation management cost pass through application, ActewAGL response to AER draft determination,* June, Attachment 1 letter from Cliff Jones of Jacobs Group dated 17 June 2014.

130	ActewAGL's Vegetation Management Policy and Strategy documents do not explicitly include details of its risk assessment for vegetation. In the information we have reviewed, there is no evidence that ActewAGL followed the precepts of its asset management strategy and policy nor its risk management policy and procedures by proactively identifying that the high rainfall in 2010 posed a risk to network reliability and public safety. We consider that a prudent and efficient service provider would have identified and evaluated the risk including possible treatment options and through regular management review of the risks, and/or review of its vegetation management performance, would have likely selected one or more of the treatment options to mitigate the risk and implemented these.	Again EMC[a] does not substantiate its conclusion in this paragraph. ActewAGL Distribution refers to its responses above and in particular, the conclusions of Jacobs Group that no DNSPs monitor rainfall and that ActewAGL Distribution is pro-active in its approach to vegetation management.[41]	We have considered again the responses and advice provided by ActewAGL and its consultants. We have modified our report to recognise that ActewAGL took steps to both mitigate the cost of its reactive response to the accelerated vegetation growth and to subsequently enhance its vegetation management practices. However, in the apparent absence of adequate risk identification, risk assessment and risk treatment to proactively manage the threat of unusually high rainfall to the vegetation management program objectives, we remain of the view that ActewAGL did not manage its vegetation program in a prudent and efficient manner for the period 2011/12 – 2012/13.

[41] Revised Regulatory Proposal, Attachment C11, page 35; ActewAGL Distribution, 2014, *Vegetation management cost pass through application, ActewAGL response to AER draft determination,* June, page 16; Attachment 1 letter from Cliff Jones of Jacobs Group dated 17 June 2014, pages 5-6.

131	We consider that reasonable project (and program) management practices, had they been in place, would have supported the monitoring and review cycle by identifying above budget volume and/or expenditure trends through regular, robust program performance reviews. Variances in lag and leading vegetation management indicators should have alerted ActewAGL's management that corrective action was required much earlier than it was eventually identified in mid-2012.	Again EMCa does not refer to any evidence, reasoning or analysis to substantiate its conclusion in this paragraph. Further, as described above, this conclusion shows that EMCa has not considered ActewAGL Distribution's submissions to the AER in respect of its pass through application.	We have reconsidered the information provided by ActewAGL in response to our draft findings and remain of the view that variances in lag and leading vegetation management indicators should have alerted ActewAGL's management that corrective action was required much earlier than was the case. We see such monitoring to be a complementary activity, not a replacement activity, for the risk management process that we consider should have been followed. We have modified our report to reflect this.
132	Our conclusion is that ActewAGL's reactive and late response to the vegetation-based risk posed by the very high rainfall that occurred in 2010 was not representative of prudent asset, risk, or works program management.	EMCa does not refer to any evidence to substantiate its conclusion in this paragraph. This is an example of EMCa merely parroting the AER's conclusions in its Draft Determination and its decision on ActewAGL Distribution's pass through application. ActewAGL Distribution refers to its responses above and, in particular, the conclusions of Jacobs Group that no DNSPs monitor rainfall and that ActewAGL Distribution is pro-active in its approach to vegetation management.[42]	We consider that we have provided sufficient information to conclude that, in the case of its response to high rainfall in 2010 and 2011, ActewAGL did not act prudently and efficiently to reduce vegetation management risks and costs.
133	The list of suggested alternative actions to meet network risk and public safety risk objectives within budget identified by the AER provide a reasonable identification of the actions that could have been pursued by ActewAGL.	EMCa fails to identify the list of alternative actions it is referring to here. As such, ActewAGL Distribution is unable to understand and respond to this statement. Again this is an example of EMCa merely repeating views expressed by the AER without any analysis or evidence.	A detailed reference to the actions provided by the AER has been added in the final report.

[42] Revised Regulatory Proposal, Attachment C11, page 35; ActewAGL Distribution, 2014, *Vegetation management cost pass through application, ActewAGL response to AER draft determination,* June, page 16; Attachment 1 letter from Cliff Jones of Jacobs Group dated 17 June 2014, pages 5-6.

134	Based on our experience, the combination of the cost mitigation strategies outlined by the AER is likely to have allowed ActewAGL to operate within its budget and not materially increase the network or public safety risk, with the biggest saving coming from the contracting arrangement.	Again EMC[a] fails to reference what cost mitigation strategies it is referring to here. In any event, to form this conclusion, it would have been necessary to undertake a detailed consideration of volume data and the conditions to which ActewAGL Distribution was responding and costed up an alternative work program. To accord procedural fairness ActewAGL Distribution should have been provided with a copy of any such analysis performed by EMC[a]. It appears that EMC[a] has made this conclusion without any basis and, as such, all of EMC[a]'s conclusions in the Draft Report should be treated with extreme caution.	Our draft report has been modified.
135	We conclude that ActewAGL's vegetation management practice and strategic and tactical responses, were inadequate and as such ActewAGL did not act prudently and efficiently to reduce the costs associated with the increased vegetation growth.	As set out above, there is no evidentiary basis for this conclusion.	We consider that we have provided adequate information in our draft report to support this position.
Under-recovery of costs			
144	ActewAGL forecasts spending approximately $4.0m pa on vegetation management. Of this approximately $1.8m pa opex is budgeted for urban vegetation, and $1.2m for rural vegetation management. Approximately $0.8m (20%) is forecast for urgent clearance costs (for both rural and urban areas).	ActewAGL Distribution changed its forecasting approach for vegetation management in the Revised Regulatory Proposal to respond to concerns raised by the AER in its Draft Decision.[43] These costs are based on the bottom up forecast in ActewAGL Distribution's Regulatory Proposal and as such are no longer relevant.	EMCa used ActewAGL's original expenditure forecast to demonstrate the indicative ratios of expenditure between urban, rural and urgent clearance costs only. Based on ActewAGL's response, we have modified our report to acknowledge that the ratios are based on an earlier forecast by ActewAGL. However ActewAGL has not provided updated information.
145	ActewAGL inspects about 44,000 properties pa, with about 10,000 clearance notices issued per year. ActewAGL undertakes vegetation clearance when the property owner fails to respond to a second notice. It is able to recover these costs unless the work is undertaken in 'urgent circumstances'.	ActewAGL Distribution also incurs the costs of removing pre-existing vegetation.	We have modified our report to include this advice from ActewAGL.

[43] Revised Regulatory Proposal, Attachment C11, page 40.

147	Based on the information provided, the degree of difficulty in accessing rural spans to undertake vegetation management is commensurate with other DNSPs.	EMCa does not refer to any analysis or evidence to support this conclusion. It is mere assertion and, accordingly, ActewAGL Distribution is unable to understand, assess and respond to it.	ActewAGL's response is not informative.
150	ActewAGL does not nominate the percentage improvement in costs, nor when the change was introduced. However, based on our experience and our analysis of the reduction in the average inspection hours since 2012/13, we estimate the productivity improvement to be 10-15%. Without evidence to the contrary from ActewAGL, we assume that the system was not implemented in 2012/13 and therefore is an indication of inherent process inefficiency.	As outlined in the ActewAGL Distribution cost pass through application, ActewAGL Distribution developed and deployed a mobile data capture system in 2012/13.[44] EMCa's factual error in this paragraph 150 is a product of EMCa's failure to review the material ActewAGL Distribution submitted in support of the pass through application, EMCa fails to provide any details of its analysis or experience in developing and deploying a mobile tablet system to issues vegetation encroachment notices.	We have modified our draft report to note ActewAGL's advice that the mobile data capture system was developed and deployed in 2012/13. EMCa personnel have extensive experience in operational and managerial roles in electricity utilities, and also in senior roles focused on the electricity industry in local and major global consulting practices. We hold that we have the expertise and experience to support our professional opinions regarding mobile data capture systems. In the absence of any information from ActewAGL, we have retained our estimated efficiency benefit in our final report.
151	ActewAGL incurs the full cost in inspecting vegetation in 'urgent' circumstances and '*expects that the use of LiDAR will enable further efficiencies to be delivered*'. This is indicative of an overly reactive vegetation management process in previous years, including 2012/13, which has led to ActewAGL foregoing recovery of costs from landowners/TAMS – a further source of cost inefficiency.	EMCA is incorrect. ActewAGL Distribution always incurs the full costs of inspection vegetation.[45] EMCA's conclusion in the second sentence in paragraph 151 does not necessarily follow from the first. It is also mere assertion without evidentiary basis.	This was an editorial issue with the draft report. With regards to our first sentence, our understanding from information provided by ActewAGL is that it undertakes vegetation clearance on behalf of landowners if they fail to respond to clearance notices. We also understand that it cannot recover costs from landowners if this work is classified by ActewAGL as 'urgent'. The reference to expected efficiencies stemming from the use of LiDAR is an indication to us of known inefficiencies regarding vegetation management for 'urgent' circumstances. The report has been modified to separate these points.

[44] ActewAGL Distribution 2013, *Vegetation management cost pass through*, November.

[45] ActewAGL Distribution 2013, *Vegetation management cost pass through*, November, p.15

153	Whilst ActewAGL is able to recover its costs from landowners/TAMS if the work is not done in 'urgent circumstances'. However: • ActewAGL reports only invoicing $106,000 worth of work in 2012/13 and indicates that little of this is recovered – there appears to be a significant under-recovery of legitimate costs; and • In 2012/13, ActewAGL undertook much of its clearance work under 'urgent circumstances' due, according to ActewAGL, to 'unforeseen' growth. None of the work done for the 98.7% of the urban overhead network normally subject to cost recovery, was therefore able to be charged for.	EMCa note that ActewAGL Distribution reported "only" invoicing $106,000 for vegetation clearing. The information provided to the AER shows that ActewAGL Distribution invoiced 384% more in 2012/13 than the average in the other years of the regulatory period, as would be reasonably expected following the unexpected and uncontrollable increase in vegetation growth.[46] [Table 1 omitted] EMCa statement that "*None of the work done for the 98.7% of the urban overhead network normally subject to cost recovery, was therefore able to be charged for"* is incorrect. ActewAGL Distribution, as outlined in its November 2013 cost pass through application, is able to recover the costs where a prior notice has been issued for the offending vegetation.[47] ActewAGL Distribution also noted that ActewAGL Distribution is not able to recover the cost for pre-existing vegetation.[48] Further, ActewAGL Distribution notes that vegetation management invoiced amounts have been netted off against expenditure to establish its adjusted base opex in its revised regulatory proposal.	ActewAGL has provided no additional information to change our assessment.

[46] Response to AER information request 24 September 2014.

[47] ActewAGL 2013,Vegetation management cost pass through, November page 14.

[48] ActewAGL 2013,Vegetation management cost pass through, November page 22.

154	We conclude that there is evidence of systematic issues that indicate sources of inefficiency in vegetation management circa 2012/13: • Inefficient office-field and field-to- office practices • Under-recovery of legitimate costs; and • Foregoing the opportunity to recovery costs due to excessive inspection and clearance work in 'urgent circumstances'	This conclusion is mere assertion. EMCa does not refer to any evidence capable of substantiating a conclusion that there were 'systematic issues that indicate sources of inefficiency in vegetation management circa 2012/13'. ActewAGL Distribution observes, in particular, that the preceding discussion in section 4 is concerned with the $1.85 million that was the subject of ActewAGL Distribution's 2013 pass through application (notwithstanding that. in its Revised Regulatory Proposal, in moving to a revealed cost approach for forecasting vegetation management expenditure, ActewAGL Distribution adjusts actual vegetation management expenditure to take into account the 2012/13 positive pass through amount of $1.85 million because this expenditure is non-recurrent and ActewAGL Distribution is recovering those costs through the pass through process[49]) presumably because this amount is included in the revealed costs for 2012/13 used by the AER to derive its alternate opex forecast. However, the discussion of that amount in section 4 does not evidence anything as to the efficiency or otherwise of ActewAGL Distribution's 'business as usual' vegetation management expenditure in 2012/13 of $3.5 million ($2013/14). EMCa does not disclose that it has undertaken any meaningful review of office-field and field-to-	ActewAGL did not provide any new information in this response that is relevant to the conclusions stated in paragraph 154.

[49] Revised Regulatory Proposal, Attachment C11, page 40.

		office practices. EMC[a] has not developed or supported the proposition that there was under-recovery of legitimate costs. While the AER reaches a conclusion that ActewAGL Distribution forewent the opportunity to recover costs due to excessive inspection and clearance work in 'urgent circumstances', EMC[a] has not provided any basis for it to reach an independent conclusion that is the same as the AER's. ActewAGL Distribution observes that EMC[a]'s conclusion that ActewAGL Distribution was inefficient because it forewent the opportunity to recover costs rests on the proposition that it was not acting prudently and efficiently with respect to the events that were the subject of its pass through application. If it was acting prudently and efficiently, which as set out above ActewAGL Distribution considers it was, then the work was legitimately undertaken in urgent circumstances and as a consequence ActewAGL Distribution was not able to recover costs from land holders. ActewAGL Distribution has not included any invoiced costs (recovered or not) it has issued in the 2012/13 base year. As a result, any purported inefficiency in ActewAGL Distribution's recovery of these costs is irrelevant to the efficiency of the base year, 2012/13, vegetation management expenditure.	