ATTACHMENT 7.6
PRODUCTIVITY

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1. PURPOSE

The purpose of this paper is to present to the Australian Energy Regulator (AER) Essential Energy's response to the issues raised by the AER in its draft decision regarding labour productivity and work practices.

2. SUMMARY

> While we accept a productivity assessment is important, the benchmark modelling used by the AER is fundamentally flawed and ignores the scale and geographic spread of Essential Energy's network.
> We recognise that strategic outsourcing can deliver business and customer benefits however, the vast geography and varied environments of our network limit our ability to leverage this approach.
> Outsourcing, customer value and a transition period are all important considerations in arriving at any productivity recommendation.
> Essential Energy's current reform path and productivity improvement initiatives are already forecast to return $1.4 billion in savings and are on track to deliver the network performance and reliability customers expect.

Essential Energy is a Distribution Network Service Provider with a geographic footprint which covers 95 per cent of New South Wales. The Essential Energy network is unique in terms of the geographic area it covers, the terrain it traverses, the vegetation that grows around it and the diversity of weather patterns across the footprint. The scale of assets required to ensure the network physically reaches customers in the most far reaching corners of NSW is like no other network in Australia.

In its draft decision, the AER reduced Essential Energy's proposed operational expenditure by 38.4 per cent[1], as a result of the productivity benchmarking undertaken by Economic Insights and published in their report *Economic benchmarking assessment of operating expenditure for NSW and ACT Electricity DNSPs 17 November 2014* (the Benchmarking). The AER has relied extensively on benchmarking to reject our proposed operating expenditure and developed a substitute expenditure. The AER also engaged Deloitte Access Economics to identify potential sources of inefficiency. Deloitte made a number of assertions including that, our workforce was relatively inflexible with limited ability to innovate, higher comparative labour costs, poor management of labour costs and Union opposition to management attempts to reduce labour costs and improve productivity[2].

The AER has not sought to use benchmarking data to measure the relative productivity performance at a network task level relative to the asset base of each DNSP, but rather has used cost per customer modelling. This method will skew productivity measures to show that DNSPs with higher customer densities have higher levels of productivity, which is clearly flawed as it bears no relationship to the size of the network and geographic spread of the network assets to be operated and maintained. The AER modelling has chosen to rely on cost to serve modelling relative to customer population and not considered cost to serve modelling relative to network size. This is covered further in Chapter 7 of Essential Energy's Revised Proposal and Attachment 7.4.

Essential Energy fully accepts that an assessment of productivity is an important issue for the AER, electricity customers, and indeed for Essential Energy itself. This paper will present important information which will assist the AER in understanding that the benchmark modelling used to determine efficiency is fundamentally flawed and has not taken into account the unique aspects of Essential Energy's network scale and geographic spread which impact productivity. Further the AER has not considered the prudency of outsourcing when compared to DNSPs with higher customer densities and smaller geographic spread such as those in Victoria. The AER has also not identified inconsistencies and anomalies in the RIN data when used for the purpose of benchmarking productivity. Our independant research indicates that the RIN data in its current form is not fit for this purpose and should not be used on its own to draw any posteriorical conclusions.

[1] AER, *Draft decision Essential Energy distribution determination 2015-16 to 2018-19 Overview*, November 2014 , section 8.7.1, p.51
[2] AER, *Draft decision Essential Energy distribution determination 2015-16 to 2018-19 Attachment 7 Operating expenditure, November 2014, p7-89*

Essential Energy contests the validity of the AER's productivity benchmarking and asserts that since embarking on our network reform program in July 2012 a range of productivity improvement initiatives have been implemented and are on track to deliver savings of $1.4 billion and deliver the network performance and reliability customers expect. These initiatives include increased controls in the use of planned overtime, fleet reductions, increased control of travel costs, and changes to work practices, which have all collectively increased productivity when measured on a cost per unit of basis. During this period there have also been significant reductions in regional senior and middle management resources, for example 56 per cent reduction in Regional Managers, 59 per cent reduction in Regional Management resourcing, 45 per cent reduction in Area Managers. These examples are highlighted within this attachment.

Importantly, the savings from these initiatives are on-going and have been factored into our forecast expenditures as detailed in our revised regulatory proposal.

We agree that an outsourcing strategy well implemented, can safely deliver cost benefits and quality outcomes which have many benefits in improving the overall productivity of the business. The dispersed nature of the network and the lower concentration of work volumes in specific locations inherently limits Essential Energy's ability to rely on economies of scale to improve productivity. This also constrains the open market to cost effectively provide alternate sources of labour and services in regional locations taking into consideration the high cost of mobilisation and the absence of long term work programs. To this end, Essential Energy has strategically located regional depots which operate on a "hub and spoke" configuration, balancing public safety risk and emergency response against efficient cost modelling, utilising a predominantly multiskilled regional workforce.

We assert that both insourcing and outsourcing have their respective advantages and disadvantages when used in a complimentary fashion to increase productivity and reduce costs. Essential Energy has undertaken market testing and continues to identify specific work activities which can be cost effectively contracted out taking into consideration safety and quality. Deloitte's has ignored evidence which shows that Essential Energy implemented significant outsourcing in the 2009-14 regulatory control period. Presently, approximately [redacted]. In addition, a further [redacted] of the works program has been market tested to ensure competitiveness with external market outcomes resulting in [redacted] operating and capital work programs being competitively tested. This program of market testing has also enabled Essential Energy to undertake internal benchmarking and review internal work practices..

It should also be noted that Essential Energy customers place a high value on a reliable electricity supply, although a large number of outages impacting customers are beyond our control given the scale of the network, length of distribution feeders and greater exposure to weather conditions. Customers (especially small businesses and primary producers) also place a high value on Essential Energy's responsiveness to unplanned outages and subsequent timely restoration. For this reason Essential Energy has an extensive geographic spread of depots to service customer expectations and mitigate public safety risk during unplanned events.

In conclusion, the potential for erroneous outcomes from the AER's benchmarking, highlighted by Essential Energy's own independent expert research, has raised significant concerns that the AER's proposed expenditures are not adequate to operate and maintain a network which meets customer and community needs, without comprising safety and reliability. The quality of RIN data is inconsistent and immature which limits it's value when used for the purposes of benchmarking productivity across diverse DNSPs. The Deloitte review has not provided evidence to support its assertion that Essential Energy's work practices are significantly less efficient than comparative DNSPs when measured at a network asset level. We support the view that benchmarking is one of a suite of appropriate tools to use however call into question the results obtained by the AER.

While the Victorian DNSPs outsource more than the NSW DNSPs, the level of outsourcing is clearly not as disparate as presented by the numbers quoted by Deloitte, due to the majority of Victorian outsourcing being to related parties.

Table 2-1 sets out our response to specific issues raised by the AER in its draft decision.

Table 2-1: Summary of AER Issues and Essential Energy's Responses

Summary of AER issue	Essential Energy response
Essential Energy benchmarks behind most peers	**AER Benchmarking is inappropriate:** > The benchmarking methodology adopted by the AER does not sufficiently consider environmental variables such as: > scale of network > mobilisation costs > depot configuration to service network assets > weather and climatic factors, > regional customer service expectations > network design, accessibility > vegetation profile > asset age and reliability > physical environment **These variables are significantly more cost intensive for Essential Energy than for its peers:** > Productivity is best assessed as a cost per unit of work undertaken or in a direct comparison with the performance of competitors > Essential Energy has been benchmarked with customer numbers as the cost driver. This is unfit for purpose, as asset scale, volume and physical environment drive network costs > Mobilisation and depot dispersal have a natural cost trade-off that is neither linear nor easily normalised for benchmark purposes > Due to the network scale, multi- skilling and selective hub and spoke and specialist resourcing has been deployed to optimise skills capacity, utilisation, specialisation and cost. **Actual performance against alternative cost models:** > [redacted] > The RIN data is very immature for the purposes of productivity benchmarking, however high volume – low skill tasks such as pole inspections demonstrate that Essential Energy is in the upper quartile of efficient DNSPs.
> [redacted]	> [redacted] > [redacted] > [redacted] > [redacted]
Business and consumer advocates' pricing and decision making has not been in consumers long term interests	> Essential Energy has embarked on a Network Reform Program since July 2012 to reduce costs in the long term interests of customers. Examples include cost reductions in overtime and, travel of $19m compared to 2012-13 levels. > Emergency response across a large network requires local autonomy, multi-skilling of the workforce, distributed depots across the breadth of the network and an ability to mobilise quickly. > Price and service trade-off is recognised by most regional customers. To improve the cost/service ratio reforms have been undertaken to scale response to the nature and specific environmental circumstances > The long term interests of customers will be served by a well-planned transition to an alternate operating model which over time transitions costs out of the business without increasing network safety risk. > Overtime was increased for a period of time to limit exposure to uneconomic contracting arrangements within a limited regional market. Work patterns from year to year are variable overtime is an effective cost option to address work peaks when considered against the opportunity costs of less flexible resource options

Summary of AER issue	Essential Energy response
Transition towards greater efficiency is rejected; immediate transformation is sought by AER	> Poorly planned employee separations compromise skill retention, may induce the wrong employees to depart, creates a redundancy culture, [redacted] > Multi-skilling and selective location of specialist employees, generates a unique mix of autonomous skills and costs in order to operate independently and effectively service the local network > Depot locations and network expanse create unique mobilisation costs. Any immediate reforms associated with the current pattern of depots, mix of skills and location of specialist roles and functions, may produce a diminishing marginal return of labour costs > The current resource operating model is based to counter network distance and scale. Alternative resource options are simply unavailable in the immediate term due to an immature market and operating conditions > The pattern and number of depots has been historically driven by emergency response times. Any change in depot configuration will need to consider public safety , community, employee relations and time to implement adjustments

3. BACKGROUND

Under the National Electricity Rules, Essential Energy, as a Distribution Network Service Provider (DNSP), is required to submit a regulatory proposal to the AER every five years to set appropriate network tariffs. In its regulatory proposal to the AER for the 2014-19 regulatory period, Essential Energy has proposed to reduce capital expenditure by 41 per cent and increase operating expenditure by 11 per cent as part of a proactive, ongoing productivity drive that commenced in July 2012.

In its draft decision, the AER reduced Essential Energy's proposed operational expenditure by 38.4 per cent[3], as a result of the productivity benchmarking undertaken by Economic Insights and published in their report *Economic benchmarking assessment of operating expenditure for NSW and ACT Electricity DNSPs 17 November 2014* (the Benchmarking). Essential Energy contests the validity of this Benchmarking and proposes our current path of reform and productivity improvement initiatives are on track to deliver the network performance and reliability that customers expect.

3.1 Productivity improvement programs already implemented

Since the formation of Networks NSW (NNSW) in July 2012, Essential Energy has been on a path of major reform, driving efficiencies throughout the business to increase productivity and ultimately, deliver price reductions to our customers. Known as the 'NSW Network Reform Program', these reform initiatives have already delivered progressive improvements in employee and public safety, network reliability and customer affordability.

The NSW Network Reform Program has productivity at its core and includes an ongoing program of field workforce planning, measurement and monitoring based on three platforms:

- Implementation of recruitment freeze operating model through normal attrition and voluntary redundancy;
- Productivity improvement initiatives; and
- Blended delivery model incorporating a mix of insourcing and outsourcing.

Resource modelling has also been extensive, catering for natural attrition, development of outsourcing within key locations and much needed succession planning and skills retention. This is complemented with a regional management re-structure that has streamlined our business, improved performance levels, and limited overhead costs, such that:

- Nine separate regions were condensed into four new regions covering the same total geography;
- 109 regional management employees were reduced to 45;
- 2nd level line managers (Area Managers) were reduced from 36 to 20; and
- 1st level line managers (Team Leaders) were reduced from 136 to 128 (Resource Supervisors).

Several other reforms, some still developing and evolving, have also been introduced. These include:

- Employee performance reviews covering all employees, including field employees;
- Recruitment activities to secure unqualified Electrical Workers (labourers) to assist with greater skills diversity and distribution within crew formations;
- Accumulated leave for skilled and scarce resources allowed to float to match work demands; and
- Reduction in planned overtime.

Due to the nature of Essential Energy's vast network footprint, the business has also driven the evolution of a multi-skilled workforce, coupled with the strategic geographical location of several specialist teams.

For example, multi-skilling is applied at a depot level to cover routine maintenance and emergency response. This does not infer that all employees are skilled similarly to each other. Rather, every depot will have a mix of roles and

[3] *Draft decision Essential Energy distribution determination 2015-16 to 2018-19 Overview*, AER, November 2014 , section 8.7.1, p.51

skills and individual employee skillsets will vary within depots to meet the broadest possible range of service requirements.

There are approximately 25 depots across major regional centres that continue to fulfil such a 'hub and spokes' role of offering more specialised skills and support to a series of smaller depots within a service area. An example is Dubbo depot, which provides support to nearby Narromine, Wellington, Dunedoo and Gilgandra territories, as well as the more remote locations of Cobar, Nyngan, Bourke and Walgett where required.

As a further driver for best performance and continuous productivity improvements, the teams at every Essential Energy depot participate in a closely monitored and reviewed 'Depot Challenge Cup'. This vies depot against depot and rewards them against metrics of safety, customer, financial and business process outcomes. Best practice results and learnings are shared across the entire business each month in an 'always on' program that ensures productivity is front of mind for all Essential Energy employees at all times.

3.2 Savings delivered by the Network Reform Program

These reforms have already seen Essential Energy deliver efficiencies of $634 million in opex and capex against the 2010/11 Statement of Corporate Intent (SCI). Essential Energy is forecast to deliver approximately $1.4 billion in cost reductions over the 2012-2016 period.

These savings have been delivered across areas of the business that have a direct impact on productivity – fleet, overtime and travel. Since 1 July 2012, Essential Energy has reduced our fleet size by 691 motorised vehicles, reduced overtime by $19m per annum, and made annual savings of $10m with respect to travel.

Essential Energy's productivity is, to some extent, a function of its network and regional operating model, bound by its geographical breadth. This is the environment we know best and for the 2014-19 regulatory control period, savings from the current reform program are expected to continue to accrue. These savings have been factored into our forecast expenditures. For example, Attachment 6.4 Corporate and Divisional Overhead outlines that overheads are forecast to be 22 per cent lower than was incurred in the current regulatory control period.

Essential Energy acknowledges that there are still further significant improvements to productivity to be made. Looking ahead to the 2019-2024 regulatory period, our revised proposal forecasts underlying operating expenditure to reduce further by 17 per cent as Essential Energy's reform and productivity improvement initiatives deliver further efficiencies.

3.3 A realistic timeframe for change

Business improvement and transformation must be implemented over a realistic timeframe to ensure customer expectations and the inherent risks associated with operating a distribution network are managed appropriately.

While an immediate change at the start of a new regulatory period may seem attractive to the AER, Essential Energy contests this will ultimately jeopardise the long term stability, reliability and sustainability of the network.

A transformation period is critical to accommodate strategic, practical change programs that deliver positive end results to customers. While the AER's draft decision suggests an immediate change, this will only serve to deliver a 'cosmetic', short term improvement in productivity. At the same time, an immediate change will create a backlog of key maintenance and capital works to be recovered in the following regulatory period, resulting in future peaks and troughs in network prices for customers.

The AER has stated that Essential Energy's productivity is impacted by a relatively inflexible workforce with union opposition to cost or productivity improvements. It is acknowledged that Essential Energy does operate with a heavily unionised labour force, however, the changes already made show that significant improvements can and will continue to be realised in accordance with our obligations under our Enterprise Agreements and the Fair Work Act.

4. DISCUSSION

4.1 Draft decision

The AER's draft decision did not accept our proposed operating expenditure or capital expenditure. In assessing operating expenditure the AER stated they are not satisfied Essential Energy's forecast Opex reasonably reflects the operating expenditure criteria in the NER and substituted a substantially lower amount.

The AER has relied extensively on benchmarking to reject our proposed operating expenditure and develop substitute expenditure. When seeking identify the potential sources of inefficiency the AER engaged Deloitte Access Economics (Deloitte) to review our labour and workforce practices.

Deloitte concluded that the base year would not likely represent efficient costs due to[4]

- A relatively inflexible workforce with limited ability to innovate or respond to changing circumstances;
- Labour costs entrenched in Enterprise Bargaining Agreements (EBAs) which are well above peer costs;
- In some cases, poor management of labour costs – for example in relation to overtime; and
- Union opposition to management attempts to reduce costs and/or improve productivity.

[redacted]

Supported by the detailed review undertaken by Deloitte the AER has concluded:

> *Our reviews across both capex and opex have highlighted systemic inefficiencies in the work practices employed by Essential Energy….."*[7] and *"there is a consistent body of evidence that demonstrates Essential Energy's historical efficiency is lower than the majority of its peers in the NEM*[8]

4.2 Our position

Essential Energy rejects the AER's assertion that our proposed expenditure is inefficient due to inefficient labour practices.

In assessing the draft decision Essential Energy makes the following observations:

- There are significant conclusions drawn by Deloitte and the AER on the productivity or efficiency of labour practices at NSW DNSPs, yet little conclusive analysis is provided to substantiate those conclusions;
- The conclusion by Deloitte that Essential Energy has not undertaken significant outsourcing is not consistent with Essentials Energy's practices. Essential Energy has an established history in successfully using outsource providers to deliver its works program efficiently; and
- Our own labour cost analysis (refer Attachment 7.5) and unit rate benchmarking does not corroborate those claims made by Deloitte on labour inefficiencies, accepting the limitations of the RIN data that is available.

[4] Deloite Access Economics, *NSW Distribution Network Service Providers Labour Analysis – Final Report, 17November 2014, piv*
[5] Deloite Access Economics, *NSW Distribution Network Service Providers Labour Analysis – Final Report, 17November 2014, p32*
[6] Deloite Access Economics, *NSW Distribution Network Service Providers Labour Analysis – Final Report, 17November 2014, p3*
[7] *AER, Draft decision Essential Energy distribution determination 2015-16 to 2018-19 Overview, November 2014,p 25*
[8] *AER, Draft decision Essential Energy distribution determination 2015-16 to 2018-19 Overview, November 2014,p 24*

This attachment discusses several pertinent issues to the assessment of efficient work practices given Essential Energy's unique operating environment and present additional information on productivity that may assist the AER in its assessment process.

The following sections will explore in greater detail:

- Benchmarking;
- Outsourcing;
- Customer value, and
- Transition.

4.3 Benchmarking

In making its draft decision, the AER appears to have had limited regard for information presented in Essential Energy's regulatory submission. In support of its productivity benchmarking, the AER has criticised the NSW DNSPs for their labour costs benchmarking higher than the peer group, and has attributed this to the following:

- a relatively inflexible workforce with entrenched labour costs above peers;
- poor management of labour costs - especially overtime; and
- Union opposition to cost or productivity improvements.

4.3.1 Limitations of benchmarking

In reaching its Draft Decision the AER has placed a significant reliance on the outcomes of its benchmarking models. Given the significance of the models, Essential Energy engaged Huegin, Frontier Economics and other experts to undertake an independent review of the approach used by the AER and its consultants. In their report[9] Huegin concluded the AERs benchmarking to be unfit for purpose and identified a number of factors supporting its assessment;

- There is no consensus on the most appropriate form of modelling technique - or in the appropriate definition of input and outputs that should be considered when benchmarking utilities;
- Small samples and heterogeneity frustrate efforts to benchmark Australian networks. The introduction of international data constrains the ability to adjust for environmental factors;
- The validity and robustness of the benchmark measures are limited in their capacity to inform the conclusion reached, including to provide signals of efficiency;
- Reliance on benchmarking is premature, lacks consideration of environmental variables and relies on immature data;
- The lack of consideration of environmental variables presents a bias against businesses with environmental conditions not considered in the models. These include physical asset differences, geographical differences and accounting policies; and
- Too much emphasis was placed on a single model, with the chosen model not reflective of industry costs.

Further compounding this issue are some major inconsistencies within the RIN data. PricewaterhouseCoopers undertook an assessment of the RIN data and the underlying Basis of Preparation and noted considerable issues with it validity for meaningful productivity benchmarking. This is to be expected as:

- this is the first time such data has been collected and used in benchmarking – an immature and untested process;
- the nature of the data is such that DNSPs have not collected it directly and some estimation has been required;
- unique environmental characteristics of each DNSP have not been controlled in the comparisons; and

[9] *Attachment 6.9: Technical response to the application of benchmarking by the AER, Huegin Consulting*

- collection of this type of data may not have been entirely robust or validated effectively and consistently.

The potential for erroneous outcomes from the AERs benchmarking, combined with Essential Energy's own independent research raises significant concerns that the proposed expenditure reductions are not reasonable or practical, and cannot be achieved without compromising the reliability and safety of its network.

4.3.2 Comparing levels of productivity

In the review of labour efficiency Deloitte concludes that the NSW DSNPs labour units rate and labour practices are inefficient. Our assessment of the draft decision relating to labour unit rates analysis is addressed in Attachment 7.5..

Accepting the limitations of the RIN data, Essential Energy has compared the cost per unit of work undertaken in key activities, using the traditional productivity measure of cost as a measure of output (direct cost was divided by the respective unit of measure completed for the 2012/13 financial year only[10]).

Table 4-1 summarises the cost per unit of work undertaken. Accepting that some variation will exist in the task definition and operating environments in which the work occurs, there is no conclusive evidence to suggest that Essential Energy's productivity is below that of other DNSPs. Importantly as labour is a material input into these unit rates, it would be reasonable to expect that higher average labour costs would result in high average costs per unit. This trend is not evident in the available data, Essential Energy performs comparable or better than our peers.

Table 4-1

Metric	Essential Energy ranking	Essential Energy result $/Unit	Leading DNSP result $/Unit	Median DNSP result $/Unit
Cost per Public Light Replacement	1/3	51	51	249
Cost per OH Service Replacement	1/4	305	305	501
Cost per Pole Inspect & Treatment	1/7	28	28	59
Cost per Zone sub Equip Maintained	2/4	39	17	53
Cost per OH Asset Inspection	2/5	88	39	171
Cost per Public Light Maintained	2/5	1,163	600	2,960
Cost per OH Reconductoring	2/7	43,714	10,175	49,115
Cost per Pole Replacement	2/7	7,236	4,962	11,242
Cost per Transformer Replacement	3/5	22,348	10,272	22,348
Cost per Pole top Structure Replace	3/7	4,532	2,237	4,532
Cost per Pole Staking	3/7	953	799	1214

These outcomes ignore the role that environmental and spatial factors play in determining a distributors productivity. Advisian make the following observations related to these issues;

> *As the spatial density of a DNSP decreases, more depots, equipment and personnel are required to maintain a given level of service performance, with less opportunity to share personnel or specialist equipment between depots or with other DNSPs for the resources that are deployed to serve geographically isolated*

[10] *Data sourced from the Category Analysis RIN. 2012/13 data was used as this was considered the most relevant, complete set of data for DNSPs, and also should best reflect improvements in data and performance over preceding years.*

areas. Consequently, the impact of these factors are ultimately reflected in the staffing levels, contracting strategies, business structure, maintenance strategies and accommodation costs included in a DNSP's Opex, which will result in less spatially dense businesses appearing less productive than higher density networks across most categories of Opex[11].

4.4 Outsourcing

4.4.1 Role of outsourcing

The mix of internal versus external labour (insourcing vs outsourcing) plays an important part in balancing workforce demand and supply, especially with regard to the ability to respond rapidly to changes in workforce demand. Both insourcing and outsourcing have their respective advantages and disadvantages, and it is important that they be used in a complementary fashion to increase productivity and reduce overall expenditure, and, ultimately, reduce customer prices in the long term.

4.4.2 Advantages and disadvantages of outsourcing

Australian DNSPs have each adopted different approaches to outsourcing, indicating that no single approach offers an optimum workforce arrangement. While the Victorian DNSPs appear to outsource more than the NSW DNSPs, the actual levels of outsourcing quoted by Deloitte need close examination in terms of whether the outsource parties are a related entity to the Victorian DNSP.

It is evident that competitive outsourcing offers several advantages, provided there is sufficient market depth to maintain competitiveness.

Some of the advantages and disadvantages of outsourcing are highlighted in the following table.

Table 4-2

Focus Area	Advantage of Outsourcing	Disadvantage of Outsourcing
Skills	> Availability of specific expertise and specialist services	> Requires a critical mass of work to provide economies of scale, this can sometimes be difficult to achieve in remote or rural areas.
> Service provision	> Quality and speed of delivery	> Additional contract management and quality assurance resources need to be employed by Essential Energy in order to ensure work is of the correct standard.
> Risk Management	> Risk-sharing in equitably structured contract arrangements	> Additional governance processes required to address business risks associated with external party; clear objective metrics and deliverables, realistic schedules, financial viability, relationship management plans and support of the mutual interests of both parties
> Capacity	> Additional capacity to assist with an increased volume of work Greater flexibility with regards to the mobilisation and demobilisation of resources	> Outsourced providers need certainty of work volumes in order to commit resources and remain cost competitive, especially in remote or rural areas where it is difficult for them to obtain additional customers

[11] *Attachment 7.2 Advisian Report – Review of AER Benchmarking – December 2014*

> Cost	> Market prices subject to competitive tension, economies of scale can reduce costs for repetitive, high volume work. Outsourced providers may have access to more flexible industrial arrangements. Outsourcing creates competitiveness between internal and external labour that improves productivity.	> Lack of depth in the market leading may lead to higher prices

At the commencement of the 2009-14 regulatory period there were several constraints to outsourcing that were unique to Essential Energy's operating environment:

> A constrained labour market within regional NSW (i.e. high demand for skilled electrical resources);

> A growth in demand with regards to the supervision, auditing and administration of contracts and the requirement that additional contract and project management skills needed to be replicated across many locations and areas of specialisation;

> Stringent assessment for quality, effective performance and adherence to safety management plans restricted market entry of minor accredited contractors and larger contractors were reluctant to tender outside of major centres, as there were limited other customers to provide supplementary work; and.

> A significant supply side constraint from the natural cost of mobilisation to rural and regional areas.

Notwithstanding the constraints to outsourcing that existed in the previous regulatory period, Essential Energy endeavoured to develop more efficient business outcomes and utilise outsourcing to increase productivity. In fact, over the course of the 2014-19 regulatory period the volume of outsourcing increased considerably.

[redacted]

[redacted]

4.5 Customer value and best interests

Productivity improvements must ultimately translate into better customer value. Essential Energy has consistently taken a proactive approach to understanding the best interests of our customers, delivering optimum customer value in the short, medium and long term, and continuously measuring our performance.

4.5.1 Understanding our customers

Building on our ongoing and extensive program of customer research, Essential Energy most recently completed an additional customer and stakeholder research exercise in December 2014[12] when we engaged IPSOS Australia to better understand current customer sentiments and willingness to pay with regards to network services. This research also examined customer responses to Essential Energy's objective of containing prices to below CPI, as stated in our 2014-19 Substantive Regulatory Proposal.

This research identified that **the overall majority of customers found reduced reliability and service levels unacceptable, even when factored against price.** Key research findings include:

- The vast majority (79%) of participants interviewed were satisfied with Essential Energy's supply of electricity to their household.
- While price is a driver of participants' selection of potential service offerings, the majority of customers are not prepared to sacrifice reliability and safety for lower charges.
- Changes in service offerings – particularly in terms of number and length of unplanned blackouts and the time associated with service restoration – are also key drivers of consideration for Essential Energy customers.

[12] *IPSOS Research, Willingness to pay for network services, pg.16, December 2014.*

- Acceptability of potential service offerings hinged on price, number and length of blackouts and service restoration times.
- Street light repairs had the most modest effect on participants' likelihood to consider potential service offerings, indicating that this was the service attribute that mattered least to consumers.

Each of these customer interests directly influence the productivity decisions we make.

4.5.2 Customer satisfaction

In measuring how our approach to productivity translates into perceived customer value, Essential Energy tracks customer satisfaction on a quarterly basis[13] across a representative survey sample of 450 customers. The research is conducted by IPSOS to produce a Customer Satisfaction Index (CSI) score and covers a broad range of variables from unplanned and planned supply interruptions, streetlights and vegetation management to network maintenance, construction and customer interaction.
The last three quarters of CSI scores have shown consistently positive results (to a stated target of 80 per cent).

Table 4-3: Customer satisfaction index scores

	Apr – Jun 2014	July – Sept 2014	Oct – Dec 2014
Satisfaction score	82.7%	81.7%	81.6%

The October-December 2014 CSI score is corroborated by the IPSOS choice modelling research conducted in December 2014, with both results showing only three per cent variation.

4.5.3 Emergency response

Emergency response is central to all Australian DNSPs and addresses faults and unplanned outages. It is also a significant cost factor that impacts productivity, efficiency and our ability to meet customer expectations, particularly in a spatial and diverse network environment. Essential Energy's regional and rural customers identify this service as one of the most visible and appreciated services due to a high level of dependence on our emergency response capability to restore power.

Unlike DNSPs operating within more intensive urban and underground networks, Essential Energy's unique network environment often involves a challenging journey to a remote location, before finding and fixing the fault can even begin.

With depots distributed, on average, 50 minutes driving time apart, the emergency response location may not necessarily be convenient or accessible and is often 'off road', requiring travel on secondary and dirt roads; searching for and opening multiple access gates; cutting fences and entering rocky, slippery, steep or heavily stocked paddocks; negotiating fallen trees, culverts, swampy ground, commercial crops, vineyards, orchards, or mine sites; driving in isolated, damp, windy or snowy conditions or in 40 degree+ temperatures; and many other challenges.

These circumstances are not uncommon. For example, the Bourke depot has a four hour one way journey to its North West boundary to cover an emergency response. The following Table 4-4 provides a good indication of distances to be covered for emergency response (and other maintenance and capital works).

[13] *IPSOS Research, Customer satisfaction index, April – December 2014.*

Table 4-4: Time to substation based on straight line distance – curent state

Region	Average straight line distance to substation (km)	Max. straight line distance to substation (km)	Average travel time to substation (mins @ 50km/h)	Max. travel time to substation (Mins @ 50km/h)
Far West	74	246	89	295
North Coast	18	66	22	79
Northern	28	123	33	148
South Eastern	22	71	26	85
Southern	26	148	31	177
Overall	26	246	31	295

Emergency response services offer limited opportunity for workforce planning, with costs driven by a number of variables from asset failures and customer circumstances to urgency of the supply restoration and appeals for support by emergency services.

Regional and rural electricity supply impacts on people's quality of lifestyle and conveniences to varying degrees. For most customers, there is a minor inconvenience associated with an electricity outage but for some, a discontinuous power supply becomes business- and even life- critical.

In summary:

- Emergency response is pivotal to customers personal, safety and commercial interests. The regional depot configuration is built around an effective and timely public safety response.
- Essential Energy acknowledges a higher cost per interruption, but takes an active partnering responsibility in accommodating regional economic development and responsible servicing of regional communities.
- Small business and primary producers have a high sensitivity to reliable power with harmful business consequences potentially arising from unplanned outages.
- Customers have a willingness to pay for emergency response and have a high sensitivity to service restoration times.
- Impacts of unplanned outages are arguably more severely impacted in regional NSW than most areas in Eastern Australia, due to environmental variables and the profile and density of regional and remote customers.

The largely rural nature of Essential Energy's network means we must recognise the relationship between power reliability and regional business growth and development. As one of our key customer groups, farmers commonly value reliability of electricity supply more than most other consumer groups[14]. We must recognise how supply interruptions can potentially harm regional prosperity for a business sector that requires continuous power.

Several emergency response reforms have been recently introduced to improve cost outcomes for customers. These have not been without some employee and industrial resistance, requiring protracted consultation processes, fair consideration and ultimately, arbitration through the Fair Work Commission.

In order to minimise costs in emergency response, the following arrangements are observed:

- Essential Energy operates emergency response consistent to Electrical Power Industry (EPI) Award conditions which apply equally to employers throughout Australia in the EPI. This is predicated on a minimum two hour payment for a call-out paid at the appropriate overtime rates;
- Essential Energy operates a network of 112 depots, with employees trained and multi-skilled to autonomously respond to any emergency response, including network faults, house fires, bush fires, accidents and weather events and liaises heavily with RFS and SES services. (Interestingly, the NSW Regional Ambulance Service operates with 123 stations in regional NSW);

[14] *Meta Economics report to the Consumer Advocacy Panel - Electricity Supply Issues for Farmers - February 2013*

- Essential Energy operates with 100 separate on-call rosters, of which 50 are single person resourced, while the other 50 per cent are resourced up to two persons in larger centres;
- Each response is generally attended by a single person response, although escalated back-up is available on a needs basis; and
- Regional customers place a high value on a safe electricity network and in the case of any cause for doubt, we will respond to a call.

The practical reality is that emergency response is a cornerstone of the electricity industry and a key driver of customer expectation and satisfaction. This reality has been integral to the productivity enhancements Essential Energy has already made and to the productivity improvements planned for the 2014-19 regulatory period.

4.5.4 Overtime

Overtime is another significant cost factor that impacts productivity, efficiency and our ability to effectively address variable work patterns when considered against contracting arrangements and the potential for stranded resources. By its nature, overtime is flexible and in a specialised sector such as the electricity industry, offers short term and temporary resource options as opposed to longer term external contractual commitments or additional investment in human capital.

As already discussed, unplanned and fault and emergency response is highly valued by customers and also generates the majority of overtime. Beyond fault and emergency work, local business will demand support with scheduling planned outages to assist their commercial interests (i.e. weekend maintenance work to avoid conflicting with trading business hours). Similarly, overtime to complete same day tasks can be a more effective option than the costs associated with a next day return and duplicated travel time costs. Figure 4-3 illustrates the volatility of the work programs that must be considered across depots from year to year.

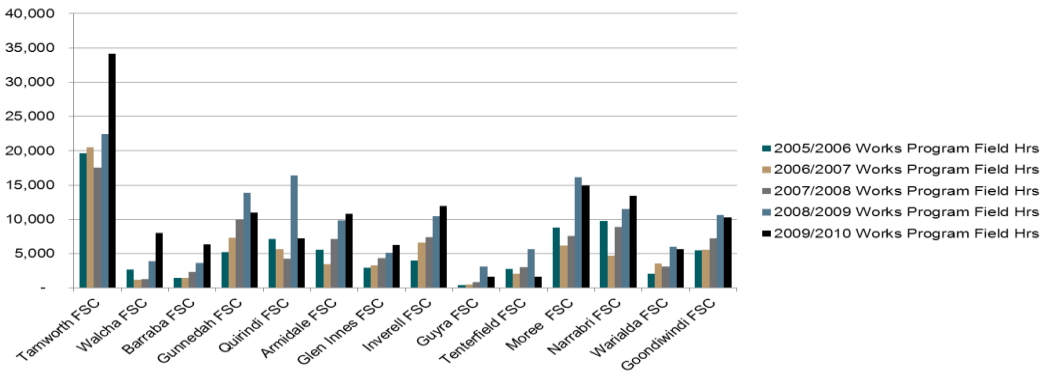

Figure 4-3: Works program field hours in selected depots, 2005-2010

From an efficiency perspective, the use of overtime is a trade-off between the higher per unit cost and the cost of employing additional staff. The use of contract resources and casual staff must also be considered.

There is little economic credibility in recruiting for temporary peaks, and when outsourcing is unavailable and unattractive, overtime becomes a most viable option.

In the current regulatory control period, overtime has come at a premium cost, being a function of volume and capacity constraints, accelerated by the marginal increase in demand. The opportunity cost of overtime was either additional recruitment to meet this marginal demand, or outsourcing, with the latter bringing additional realities of market and price imperfections.

Essential Energy has traditionally rejected additional recruitment in favour of the short term expense of overtime. To compensate, approximately 30 per cent of planned overtime was paid at a 50 per cent premium, rather than a 100 per cent premium.

A rigorous system of planned overtime controls, senior management pre-approvals, time in lieu and rostered day off programs have been in place for some time to help minimise these overtime costs and their impact on productivity. This system ensures a high level of visibility and control while enabling timely adjustments to meet peak workloads.

As a result, when overtime was at its peak level during 2009-11, it remained under 14 per cent of total project labour hours, as demonstrated in Figure 4-5.

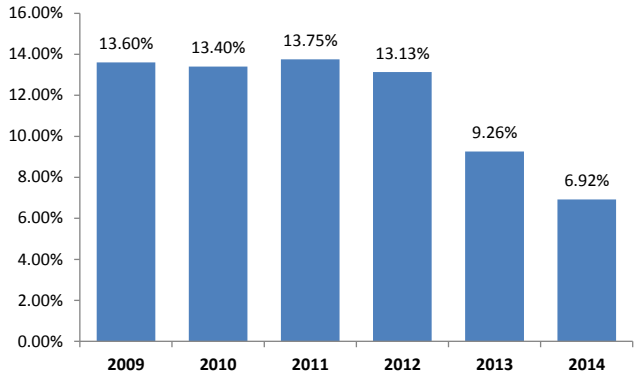

Figure 4-5: Project overtime as a percentage of total project hrs

4.6 Transition

Essential Energy substantive regulatory proposal outlined significant efficiency improvements implemented under the Network Reform Program. The design and implementation of Essential Energy' reforms always seek to balance safety and reliability objectives with the need to improve the efficiency of the business. As noted in Attachment E.1 of the substantive regulatory proposal, Essential Energy's focus has been on uncovering genuine efficiencies that will deliver long term benefits to customers, rather than simply cutting costs in an unsustainable manner.

Essential Energy recognises the need for continued improvement in labour productivity, but in a manner that enables us to safely operate and adequately maintain our network. The proposed expenditure reductions proposed in the draft decisions are not reasonable or practical, and cannot be achieved without compromising the safety and reliability of its network.

The proposed reductions to our expenditure risk counterproductive outcomes. Immediate downsizing, without regard to employee skillsets, experience and local training and mentoring and across multiple depot locations, can induce depot under-capacity and a state of diminishing productivity. For example:

- if Deniliquin depot loses a member of a liveline crew, the remaining crew is functionally ineffective, unless joined by another liveline employee from Wagga (2 hours travel one way);
- if West Wyalong depot loses its single electrical technician, specialist technical tasks need to be mobilised from Temora (1hour travel one way, or possibly Grenfell or Forbes both 1 hour 20min away);
- if Cobar depot loses one of its three qualified powerline workers, the overall crew functionality diminishes. Further relief and on-call arrangements may be compromised in the storm season (Oct to Feb). Any working relief to complete a working crew may come from Nyngan (1 hour 20 min travel one way);
- if Armidale depot losses a zone substation technician from a two person team, working operations can continue when a zone substation technician is sourced from Tamworth (1 hour 30 min one way); and
- if Yass depot loses its 1st level line supervisor, depot support operations may be compromised unless a suitable replacement is locally available. Relief may be available from Goulburn or Queanbeyan (both 1 hour one way).

Poorly considered, short term cost reductions can lead to longer term inefficiencies stemming from:

- Inadvertent loss of skills, know-how and intellectual property

- Loss of “the wrong” resources
- Culture of “separation payment entitlement” and excessive employee protections
- Volatility of work levels available for the external market potentially stifles market confidence and longer-term sustainability of contractors. A forced and dramatic contraction, creates business risk and uncertainty, and erodes the capacity to forge collaborative longer term relationships between DNSPs and outsourcing partners.
- Industry instability resulting from unanticipated changes between labour supply and demand.

4.7 Our revised proposal

We have revised our substantive regulatory proposal recognizing the need to manage our business efficiently in the long term interest of our customers. This has included examining the latest data and information that has come to light since submitting our proposal. We have made the following revisions that relate directly to labour productivity:

- Forecast annualised labour productivity improvements of 22.6 per cent by the end of the regulatory control period;
- A decrease in operating expenditure of $132 million related to labour productivity improvements;
- A reduction of $4 million ($2013-14) reflecting our adoption of the AER’s approach to labour cost escalation and a marginally lower actual CPI; and
- An increase of $30 million in operating expenditure to reflect redundancy costs associated with transforming our business and required to be paid as a regulatory obligation imposed by an enterprise agreement certified by the Fair Work Commission in accordance with the Fair Work Act.

Essential Energy is committed to ongoing productivity improvement including but not limited to:

- Further review and optimisation of depot numbers and their network territories;
- Continued and ongoing review of the configuration of field line management and distributed support functions;
- Review and consolidation of functions and roles across business units;
- Review the efficiency of existing contracts, particularly in context of contracting demand and natural price relationships with supply;
- Continued fleet, plant and equipment reductions;
- Market testing and outsourcing where cost advantages are available; and
- A stronger consideration and balancing of costs arising from customer initiated requests for service.

5. Conclusion

In its draft decision, the AER reduced Essential Energy’s proposed operational expenditure by 38.4 per cent, as a result of productivity benchmarking. The AER also engaged Deloitte Access Economics to identify potential sources of inefficiency. Deloitte made a number of assertions including that, our workforce was relatively inflexible with limited ability to innovate, had higher comparative labour costs, poor management of labour costs and Union opposition to management attempts to reduce labour costs and improve productivity[15].

Essential Energy fully accepts that productivity is an important issue for the AER, electricity customers, and indeed for Essential Energy itself. Essential Energy does not benchmark well on a cost per customer basis due to our very low proportion of customers per asset, and believes that benchmarking on this basis is inappropriate for a network of our geographic diversity. Whilst Essential Energy acknowledges that there are still significant productivity

[15] AER, *Draft decision Essential Energy distribution determination 2015-16 to 2018-19 Attachment 7 Operating expenditure, November 2014, p7-89*

improvements to be made, Essential Energy benchmarks favourably in terms of productivity against industry peers on an actual cost per unit of work basis.

Essential Energy has made significant cost savings to date, with our current reform path and productivity improvement initiatives already forecast to return $1.4 billion in savings. We recognise that strategic outsourcing can deliver business and customer benefits and continue to market test to identify future opportunities, in addition to the significant outsourcing already undertaken to date.

Essential Energy will continue to explore every opportunity to reduce costs and improve productivity, however business improvement and transformation must be implemented over a realistic timeframe to ensure customer expectations and the inherent risks associated with operating a distribution network are managed appropriately.