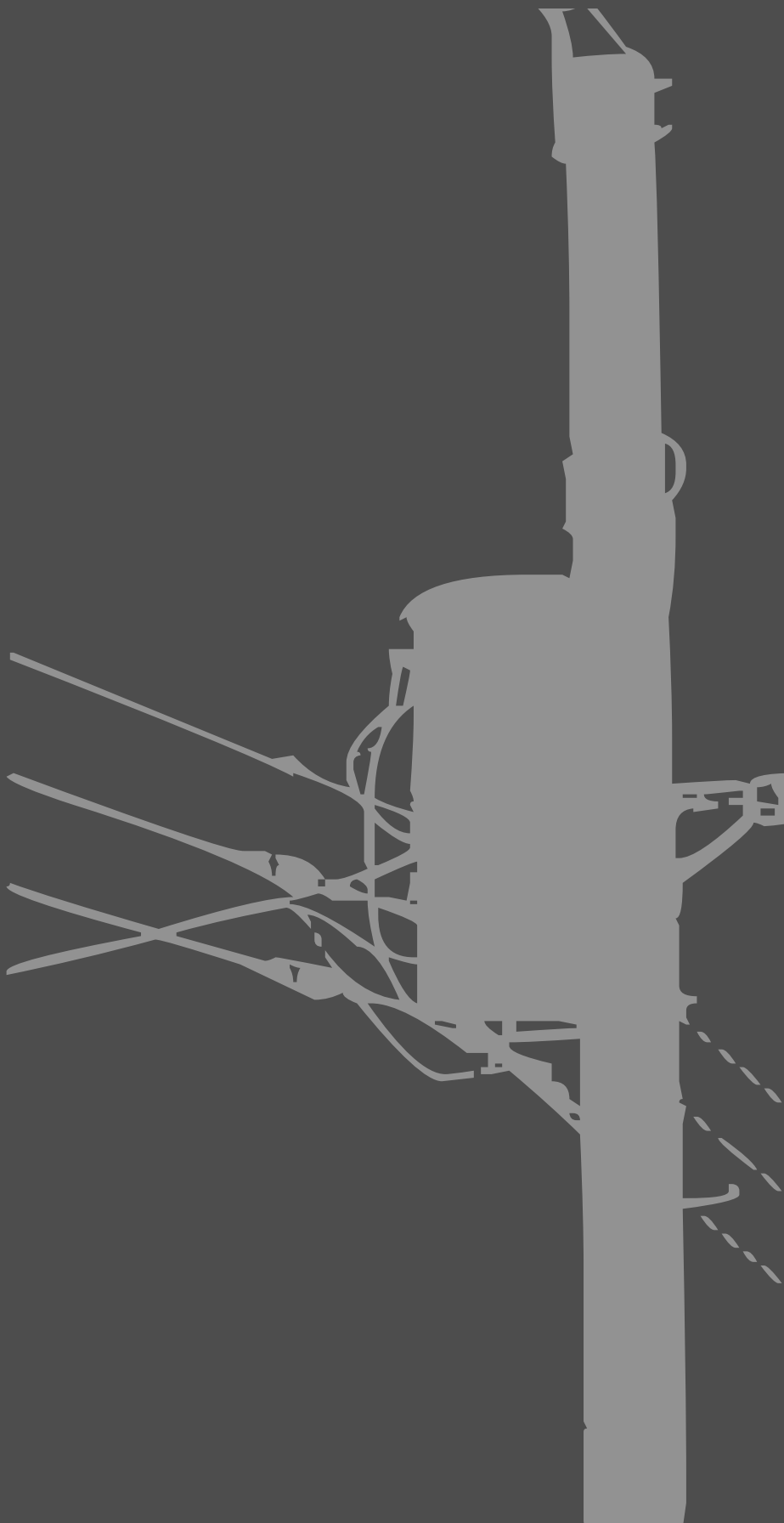
AER Operating Environment Factors

Huegin review of the bushfire factor



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Introduction

The Australian Energy Regulator (AER), recently made its preliminary determination of the efficient level of operating expenditure (opex) for Ergon Energy. The AER relies primarily on economic benchmarking to estimate an efficient level of opex for a network service provider. In the Ergon Energy preliminary determination, the AER estimated an efficiency score based on a Stochastic Frontier Analysis (SFA) model of networks from Australia, New Zealand and Ontario. This score was then used to determine an efficient opex level, through:

- The selection of a frontier against which to compare the efficiency score - in this case the AER has selected the fifth ranked business (AusNet Services); and
- A number of post model adjustments to consider exogenous factors not included in the SFA model. The AER has termed these factors Operating Environment Factors (OEFs).

In the Ergon Energy preliminary determination the AER applied a negative OEF for bushfire risk relative to the comparison network(s) of -2.6% based on the assumption that Victorian businesses have more stringent regulatory obligations.

Ergon Energy asked Huegin to consider the veracity of the bushfire OEF. We analysed the logic in applying the OEF and the value attributed to it for Ergon Energy. We used the conclusion and premises from the preliminary determination as the basis of our investigation. In particular, we considered the references shown to the right. Each component of these quotes are considered in the following sections.

Based on the evidence available to us, it seems that the Queensland service providers do not face the same level of bushfire risk as the comparison firms. The information available suggests bushfire risk is higher in parts of Victoria and South Australia, where the comparison firms operate, than in Queensland. Information on the impact of bushfires and the regulations relating to bushfires that apply in Victoria and Queensland also suggest that bushfire risk is higher in Victoria. The value of step changes and pass through applications after the Black Saturday bushfires provide an indication of the cost disadvantage that the Victorian service providers may face due to relatively higher bushfire risk.

Although some of our comparison firms are not likely to face high bushfire risks, such as CitiPower, we have weighted the Queensland service provider's efficiency target according to the number of customers that the comparison firms have. This means that the efficiency target is weighted towards predominantly rural service providers with higher bushfire risk.

- AER, Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure, page 7-200

On balance we are satisfied that in discharging their duty of care, the Queensland service providers would adopt some of the bushfire mitigation practices of the Victorian providers. However, a prudent and efficient service provider would only do this to the extent that the risks it faces warrant it.

- AER, Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure, page 7-205 & 206

Evidence does not support the bushfire risk argument

The AER use seemingly higher bushfire risk conditions in the state of Victoria as the main premise for its argument that Ergon Energy should have an Operating Environment Factor (OEF) adjustment penalty applied to it when benchmarking against the comparison firms:

> **Based on the evidence available to us, it seems that the Queensland service providers do not face the same level of bushfire risk as the comparison firms. The information available suggests bushfire risk is higher in parts of Victoria and South Australia, where the comparison firms operate, than in Queensland.**
>
> - AER, p 7-200, "Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure", April 2015

The AER argument appears to focus on the wrong elements of risk and cost. That is, the AER appears to be confusing:

1. Risk consequence with risk likelihood; and
2. Economic costs of disasters to the state and community and the cost of risk controls by a single entity to avoid causing such disasters.

The AER state that:

> **While service providers can take action to manage their bushfire risk, the natural environment and regulations with which they must comply are beyond their control.**
>
> - AER, p 7-200, "Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure", April 2015

Whilst this might be true, if the costs of these management actions are similar for two networks, yet they operate in a natural environment where the consequence of one causing a bushfire is significantly higher than the other, the cost is still the same and hence no OEF adjustment is required. Given that the majority of costs associated with managing bushfire risk are related to maintaining safe distances between vegetation and network assets, we do not believe that the assumption that bushfire consequences are generally greater in Victoria warrants the OEF of the magnitude applied by the AER (-2.6% in the Ergon Energy preliminary determination).

Bushfire risk is different to other OEFs considered by the AER, such as weather impacts, in many respects. Most significantly, costs associated with extreme weather, floods and cyclones are related to the reactive cost of repairing the network due to the impact of the OEF on the asset. Costs associated with bushfire risk, by contrast, are proactive in that network risks are managed in order to prevent bushfires.

In building its argument, the AER provide several analyses, including a Bureau of Transport Economics report [1] which shows that the average annual cost over a 32 year period for bushfires was $32.4 million in Victoria compared with $0.4 million in Queensland. This is presented as supporting evidence to the premise that bushfire risk is higher for Victorian network service providers than Ergon Energy. However:

1. These are economic costs to the state of all bushfires recorded, not just those associated with the electricity network;

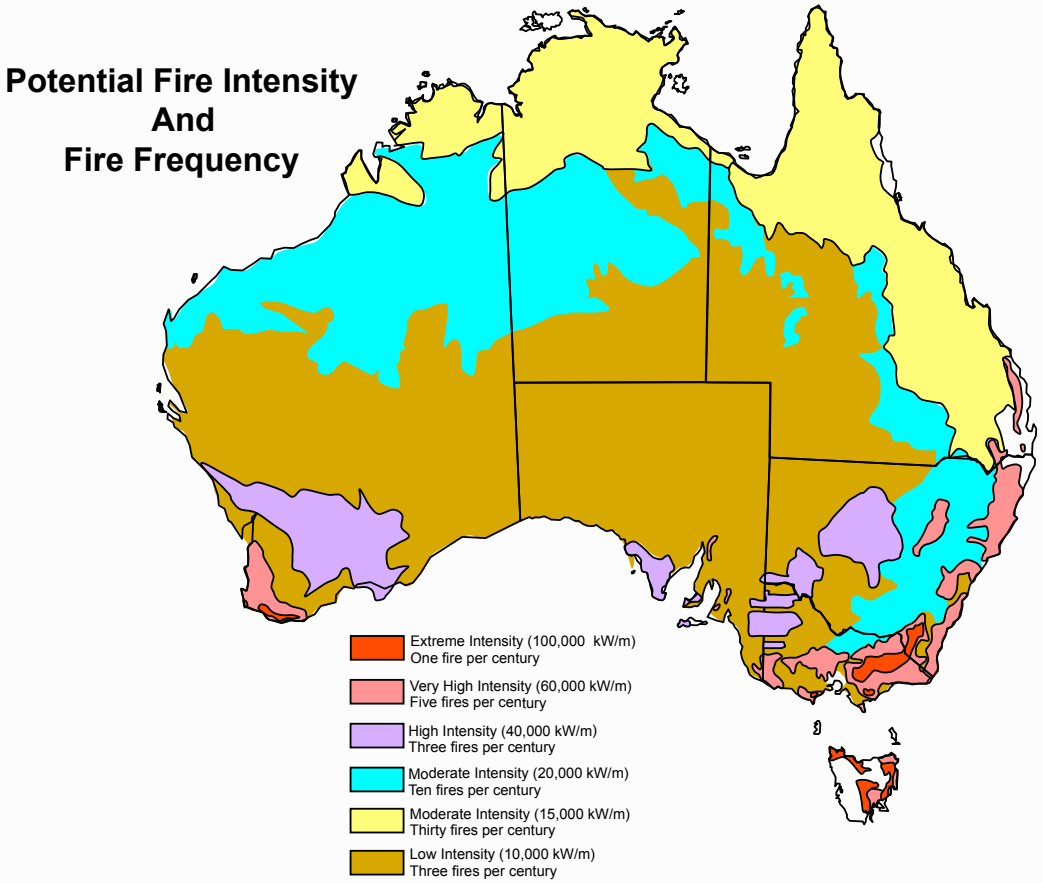
[1] BTE, Economic costs of natural disasters in Australia, 2001, p. 35

2. Even as a proxy for environmental factor adjustments applicable to an electricity network, this data is limited in the context of which it is used by the AER. For example, the same report identifies the cost of earthquakes in NSW as $141 million compared to zero in Victoria, yet there is (quite rightly) no OEF for that exogenous factor; and

3. The report also shows that over the same period, the costs of floods, cyclones and storms in Queensland are almost eight times as high as bushfire costs in Victoria.

The AER also reference geographical data, such as the difference in potential fire intensity by state[2]. Again, this is a measure of the potential outcome of a fire once initiated, not the risk of an electricity network initiating that fire. Furthermore, the same reference document[3] that the AER uses to argue that "bushfire maps also show that most of Victoria is at high risk due to bushfires"[4] included another map that demonstrated that the *likelihood* of a fire is greater in NSW and QLD than in Victoria. This map is shown below.

Bushfire risk likelihood: Fire intensity is greater in Victoria, however the frequency of such fires is much lower.



Information source: Essential Energy - Attachment 7.10 - Vegetation Management - Dr Kevin Tolhusrt Aust Fire Severity, January 2015

The map on the following page shows data from Geoscience Australia that confirms that the number of fire hotspots is much greater in Queensland than Victoria. Given that vegetation management and other bushfire mitigation controls that network service providers carry out are focused on reducing the *likelihood* of fire initiation from the network, an argument can be made that in Queensland more expenditure is required to reduce the likelihood of a network fire, whilst the potential for higher (yet less frequent) losses to the community and economy is greater in Victoria.

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[2] AER, Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure, April 2015, page 7-203

[3] Essential Energy, Revised Proposal: Attachment 7.10, 20 January 2015, page 16

[4] AER, Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure, April 2015, page 7-203

Sentinel Fire Hotspot Observations - 2011 to 2013

GeoScience Australia maintain a database of national fire hotspots using Satellite imaging called Sentinal Hotspots. This data is publicly available and is used by both the public and emergency workers to understand and identify fire locations with a potential risk to communities and property[5].

The map to the right presents the number of hotspots between 2011-2013 in Queensland and Victoria. The data suggests that both on a per km (circuit length) or per km2 (service area) basis there is a significantly higher number of hotspots in Queensland than Victoria.

2011-13	QLD	VIC
No. of Hotspots	458,898	18,015
Hotspots per circuit km	2.17	0.13
Hotspots per square km of land	0.25	0.08

This supports the view that whilst bushfire consequence may be higher in Victoria (due to higher intensity, fuel type and load and denser populations), fire start likelihood is higher in Queensland.

[5] GeoScience Australia, Sentinal Hotspots Monitoring System

The link between bushfire impacts and regulatory obligations is misrepresented

The AER link the impact of bushfires in the state with the regulations relevant to the network service provider activities:

> **Information on the impact of bushfires and the regulations relating to bushfires that apply in Victoria and Queensland also suggest that bushfire risk is higher in Victoria.**
>
> - AER, p 7-200, "Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure", April 2015

The impact of bushfires on the *state* and the regulations pertaining to *network service providers* are two separate issues. As detailed in the previous section, the potential consequences of a bushfire in each state, regardless of the ignition source, cannot be considered representative of the relative costs of controlling the likelihood of the network in each state causing a bushfire.

Further, the inference that the environmental factor applied by the AER is related to "regulations relating to bushfires" is misleading. The AER state on several occasions that the bushfire mitigation and vegetation management obligations are stricter (and have been throughout the benchmarking period) in Victoria than Queensland[6]. The only justification that we can find in the AER documentation for these statements is the AER's view that whilst the Queensland regulation requires prevention of contact between electricity networks and vegetation, minimum clearance distances are not mandated. But this does not demonstrate that the obligations are "stricter", rather it simply demonstrates that there is a more prescriptive regulatory mechanism in place in Victoria.

In fact the administrators of the Electrical Safety Regulations in Victoria, EnergySafe Victoria (ESV) considers, contrary to the AER's assertion, that the 2010 Electric Line Clearance Code (ELCC) which the AER references as the trigger for many of the step changes related to bushfire risk is actually less stringent than the 2005 code:

> **...it is arguable that the 2010 Code is, in effect, less stringent than its predecessor.**
>
> - ESV, Regulatory Impact Statement, Electrical Safety (Electric Line Clearance) Regulations 2015, Sep 2014 page 4

To be clear, whilst the Electricity Safety (Electric Line Clearance) Regulations applicable in Victoria specify minimum clearance distances between electric lines and vegetation:

1. The release of the 2010 edition of the Electric Line Clearance Code (ELCC) was not a result of the 2009 Victorian bushfires, rather it is a requirement of the Electricity Safety Act of 1998 that the ELCC has a sunset clause of five years and is therefore updated on no more than a five-yearly basis[7]. Whilst ESV would certainly have considered the bushfire events as an input to the consideration of changes, the ELCC would have been updated in 2010 regardless.

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[6] See, for example, - AER, Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure, page 7-204

[7] ESV, Regulatory Impact Statement, Electrical Safety (Electric Line Clearance) Regulations 2015, Sep 2014

2. The changes in the 2010 ELCC from the 2005 ELCC were mainly associated with changes to clearance exemptions previously granted by ESV[8]; there is no empirical evidence that either the 2005 or 2010 ELCC requirements are more stringent than those managed by Ergon Energy.

3. The absence of legislatively prescribed vegetation clearance distances in the Queensland safety regulation does not mean that Ergon Energy need not maintain similar distances between its network and vegetation as in Victoria.

There is no doubt that the change in the *enforcement* of the ELCC between 2005 and 2010 caused a cost increase for the Victorian network service providers. ESV have recognised this themselves in the consideration of the 2015 ELCC and feedback on the costs of complying with the 2010 ELCC:

> **The issues raised by stakeholders in response to the experience of implementing the current Code have focused on the costs of compliance and the impact of the Code on the amenity value of the trees being pruned. In this context, this RIS considers three options. These issues have therefore been the major focus of the deliberations undertaken in recent times and underpin the changes contained in the proposed Code.**
>
> **The proposed regulations, which incorporate the prescribed Code, are broadly similar in content to the existing regulations. However, they will incorporate a number of changes that are designed to provide greater flexibility in compliance, on the one hand, while also better protecting the amenity value of trees, on the other.**
>
> - ESV, Regulatory Impact Statement, Electrical Safety (Electric Line Clearance) Regulations 2015, Sep 2014 page 31

However the AER are only viewing this compliance cost through the lens of a burden that the Victorian network service providers now incur with the introduction of tighter compliance requirements, and have therefore applied a negative OEF to Ergon Energy. The step changes cited by the AER as supporting evidence of the current cost disadvantage for Victoria[9] over Queensland could also be considered as the efficiency benchmarking advantage to Victoria through their absence in the 2006 to 2010 data. This alternative hypothesis has merit when considering:

1. The inherent exogenous conditions for higher bushfire consequences have not changed significantly over time; information regarding the consequences of network initiated bushfires is available from the 1983 Ash Wednesday fires.

2. The step changes in costs are largely associated with more strident enforcement of existing vegetation obligations, rather than new obligations.

3. The AER's comparison firms - those it considers most efficient - also have the greatest increase in opex over the benchmarking period, driven significantly by the step changes in vegetation management associated with the increase in regulatory oversight. As shown in other reports by Huegin[10], it is the inclusion of this low opex data between 2006 and 2009 that greatly influences the apparent efficiency gap observed between Ergon Energy and the comparison firms.

4. The majority of the costs identified by the AER as the basis of the OEF are not tied to some exogenous factor only realised after Black Saturday in 2009. Some of the Victorian networks identified the costs as

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8 Prior to 2010, the network service providers were granted exemptions from complying with the clearance distances in some locations in some circumstances, for example low bushfire risk areas outside of bushfire season.

9 "The value of step changes and pass through applications after the Black Saturday bushfires provide an indication of the cost disadvantage that the Victorian service providers may face due to relatively higher bushfire risk." - AER, Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure, page 7-205

10 Huegin, "AER Benchmarking of Ergon Energy, Huegin Review of the Preliminary Determination", July 2015

part of their obligations to the 2005 ELCC in the previous regulatory determination. However the associated proposed step changes were rejected by the economic regulator at the time.

Point 4 is compelling evidence that the costs identified by the AER as exogenous and unique to the comparison firms are not an OEF and are certainly not *caused* by the 2009 events, given they were identified by the networks in 2005. AusNet Services and Powercor in particular argued in the previous determination period (well before Black Saturday) that they should be granted step changes to comply with the 2005 ELCC regardless of the ESV exemptions. Powercor provided the following legal advice that it had received in conjunction with the compliance issue:

> **The [ESV's] statement of intent in respect of non-enforcement of the Code (except during Proclaimed Fire Declaration Periods) does not change distributors' legal obligations to comply with the Code.**
>
> - Essential Services Commission Victoria, "Electricity Distribution Price Review 2006-10, Final Decision", October 2006, page 223

Based on a compliance assumption of no exemptions, AusNet Services and Powercor proposed step changes of $31.5 million and $47.5 million ($FY04 nominal) respectively. Had the Victorian regulator at the time, the Essential Services Commission, approved these step changes, these costs would have been included in the AusNet and Powercor opex for the entire benchmarking analysis period, rather than just from 2011 when they were eventually approved. However the Essential Services Commission rejected all but $2.2 million of Powercor's proposed step change, concluding:

> **Given that ESV has indicated that it only intends to enforce literal compliance with the requirements imposed by the Regulations as to the clearance between electric lines and vegetation during Proclaimed Fire Declaration Periods, the Commission considers that a reasonable allowance for the costs of complying with these Regulations is one that is based on literal compliance with the Regulations during Proclaimed Fire Declaration Periods (as opposed to during periods outside Proclaimed Fire Declaration Periods).**
>
> - Essential Services Commission Victoria, "Electricity Distribution Price Review 2006-10, Final Decision", October 2006, page 224

The need to comply with the ELCC at all times was only introduced by ESV in 2010 (along with the ELCC update and through cessation of exemptions) and allowed by the AER in 2011 (through approval of the step changes in the 2011-15 determination) and could be reasonably assumed to have been hastened by the 2009 Victorian bushfires. However the recognition of the need to comply with vegetation management clearance standards was identified by the businesses years prior. We do not argue that the bushfire events did not cause cost increases in the Victorian network service provider opex, but we do consider that the AER has overestimated the impact of these costs given that it has included a vegetation management compliance issue (cessation of exemptions under the 2005 code in moving to the 2010 code) that is applicable to the non-bushfire season and is unrelated to the recent bushfires when considering the magnitude of the OEF.

An argument can be made that rather than apply a negative OEF to Ergon Energy's benchmarking analysis, the AER should add the value of the post-2010 step changes to the opex for the Victorian comparison firms for the 2006 to 2009 data. The AER do not appear to have taken into consideration which of the pre- or post-2010 compliance obligations for the comparison firms is most similar to Ergon Energy prior to the application of the OEF. One thing is certain, however, and that is that the magnitude and significance of the step changes means that the Victorian business data in 2006 is not even comparable to the Victorian business data in 2013, let alone to Ergon Energy. This strengthens our contention that data prior to and including 2009 should be excluded from the

benchmarking model analysis. The only way that the AER can justify the inference that a firm is constantly and consistently efficient across the historical benchmark period of 2006 to 2013 when its opex has almost doubled over that period is if some highly significant, *new* exogenous factor has eventuated in the period, but:

1. The environmental conditions for catastrophic bushfires in Victoria existed before 2009;
2. The regulatory obligation to maintain certain distances between lines and vegetation existed prior to 2009 and did not change materially between 2005 and 2010;
3. The businesses considered in 2005 that the exemptions in place did not exempt them from their legal obligations to meet the clearance standards; and
4. The current regulators now agree with the network service providers' longer held belief that their obligation is to comply with the ELCC at all times - this is not an exogenous factor associated with bushfire risk conditions.

In light of this information it is dubious to suggest that the step changes are an OEF precipitated by changes in regulatory obligations. The step changes are recognition that there is a cost involved in bringing the networks up to the renewed standard of compliance (which qualifies it as a step change) but there has been no consideration as to whether this standard is more or less stringent than the standard maintained by Ergon Energy (which would be required to qualify it as an OEF). Importantly, the AER has not provided any evidence that the 2010 ELCC requirements are significantly more stringent than those that Ergon Energy maintain. A comparison of the 2010 ELCC and the Ergon Energy vegetation management standard shows that the clearance requirements are actually very similar in the two states (values in metres):

Voltage category	Ergon Energy	Victoria - Low Bushfire Risk Area (LBRA)	Victoria - High Bushfire Risk Area (HBRA)
Span length less than 45 metres			
Low Voltage	1.5	1.0	1.5
Between 6.6 and 33kV	2.0	1.5	1.5
66kV and above	3.0	2.5	2.3
Span length between 45 and 70 metres *			
Low Voltage	2.0	2.0	2.0
Between 6.6 and 33kV	2.5	2.0	2.0
66kV and above	3.0	3.0	3.0
Span length greater than 70 metres			
Low Voltage	2.5	2.5	2.0
Between 6.6 and 33kV	3.0	2.5	2.0
66kV and above	3.0	3.5	3.0

**Note: Ergon Energy span length is from 40-70)*

1.Ergon Energy clearance data source is the Ergon Energy Vegetation Management Standard

2.Victorian clearance data source is ESV, Regulatory Impact Statement, Electrical Safety (Electric Line Clearance) Regulations 2015, Sep 2014

The comparison of clearance standards highlights other issues. To the extent that clearance distances are greater for conductors of 66kV and above regardless of the network, there is no consideration that Ergon Energy has more overhead conductor at these voltages (11,274 km) than the entire state of Victoria (6,643 km) and therefore must meet greater separation distances over a larger part of its network.

Using the value of the step changes as the basis of the bushfire adjustment is erroneous

The AER consider that the aggregate value of step changes and pass through applications associated with the previous Victorian determination and bushfire monitoring and control requirements, are an appropriate indication of cost disadvantages between Ergon Energy and the comparison businesses:

> **The value of step changes and pass through applications after the Black Saturday bushfires provide an indication of the cost disadvantage that the Victorian service providers may face due to relatively higher bushfire risk.**
>
> - AER, p 7-200, "Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure", April 2015

This assumption is flawed. Firstly, the statement that the "value of step changes and pass through applications after the Black Saturday bushfires provide an indication of the cost disadvantage" infers that the step change values are associated with the Black Saturday bushfires. As stated in the previous section, the step changes were unsuccessfully requested in the previous determination period (four years prior to Black Saturday). More importantly, the majority of the step change costs are associated with the cessation of exemptions against the minimum vegetation clearance limits, whereas:

1. These exemptions were primarily for low bushfire risk areas in non-bushfire season - Black Saturday occurred in the height of bushfire season in high bushfire risk areas; and
2. The most catastrophic of the Black Saturday fires was found by the Royal Commission to have been caused by asset failure[11], a secondary consequence of which was ignition of vegetation at the base of the pole - i.e. well outside the clearance distance for the conductor.

There are several cost pass throughs related to the management of bushfire mitigation programs relevant to the Victorian networks. However these pass through costs are minor compared to the step changes involved with the cessation of exemptions against existing vegetation management clearance standards in non-bushfire periods. Regardless, the AER proceeds to use all step change and pass through costs to determine the value of the bushfire OEF. The AER references data on the step changes and pass through costs in the current period for the four Victorian networks in its comparison group (Powercor, CitiPower, AusNet Services and United Energy). The OEF is adjusted as the total of these costs as a percentage of the total opex in the period, adjusted for the benchmark analysis period. The weighted average of the cost increase (we note the AER use approved values, not actual data) is 6.9% of total opex, which translates to 2.6% when adjusted for the benchmark analysis period.

The source documents that the AER references for the calculation of the step change and pass through amounts are difficult to scrutinise as many of the costs are redacted or classified as commercial-in-confidence. A review of the documents, however, does reveal that the majority of the cost increase is related to the change in the ELCC in 2010 and the associated compliance requirements. For example, as stated, a significant proportion of the step changes was related to the cessation of exemptions between the 2005 and 2010 versions of the ELCC:

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11 VBRC (2009) "Final Report", Vol 1, page 75

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Under the Electricity Safety (Electric Line Clearance) Regulations 2005, the Victorian DNSPs were required to maintain the mandated clearance space at all times between vegetation and electric lines. However, the Victorian DNSPs were granted exemptions by ESV that allowed vegetation to enter the clearance space at certain times. While the details of the exemptions varied for each of the DNSPs, broadly:

- **the DNSPs were required to achieve and maintain compliance at all times during the fire danger season in hazardous bushfire risk areas (HBRA)**
- **the DNSPs were required to operate under a plan, approved by ESV, that was designed to achieve and maintain the minimum clearance space requirements in the 2005 line clearance code under normal growth conditions in low bushfire risk areas (LBRA).**

The AER notes that these exemptions ceased with the revocation of the regulations and ESV has not granted the DNSPs any exemptions under the Electricity Safety (Electric Line Clearance) Regulations 2010.

All of the Victorian DNSPs stated that the cessation of these exemptions would significantly increase their vegetation management costs.

- AER, p 279, "Victorian Distribution Final Decision 2011-2015, APPENDIX L—OPERATING EXPENDITURE STEP CHANGES", October 2010

The step changes approved by the AER for this change in the ELCC totalled over $62 million for the four networks out of the total ($245 million) used as the basis for the OEF calculation. A further $60 million was allowed for the cessation of exemptions from the clearance space requirements around aerial bundled cables. That is, at least half of the value of the step changes and pass through costs that the AER has used to calculate the OEF adjustment for bushfire risk are related to cessation of exemptions that were in place prior to the release of the 2010 version of the ELCC. In total, $205 million of the $245 million used to calculate the bushfire risk OEF is related to the electric line clearance standard, rather than any direct bushfire mitigation obligation beyond the code compliance changes. Amongst this $205 million step change aggregate, there are other step changes that relate to the change in the ELCC but could not be considered to be associated with bushfire risk. For example, management of habitat and native trees.

The OEF is not based on bushfire risk alone, as shown by the inclusion of step change cost data for CitiPower

The loose association in the AER's analysis of the term "bushfire risk" with compliance with the electric line code for vegetation clearance distance is best demonstrated by the AER's consideration that CitiPower's step change in vegetation costs are somehow associated with bushfire risks:

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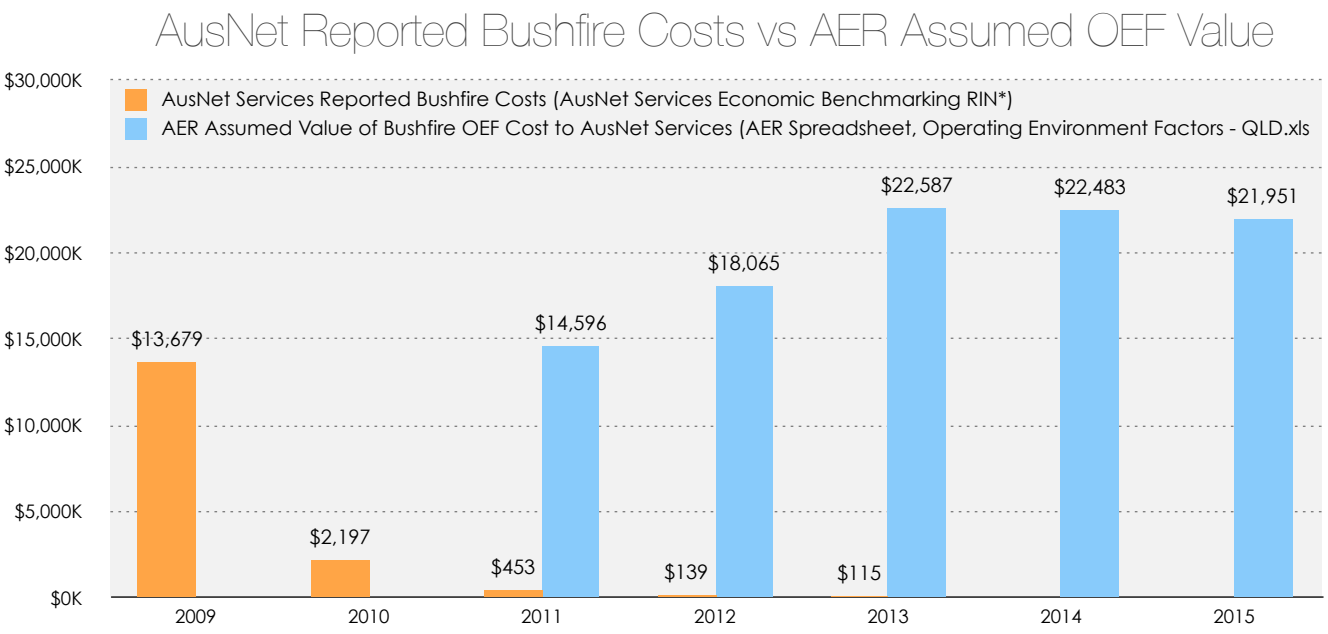
Although some of our comparison firms are not likely to face high bushfire risks, such as CitiPower, we have weighted the Queensland service provider's efficiency target according to the number of customers that the comparison firms have. This means that the efficiency target is weighted towards predominantly rural service providers with higher bushfire risk.

- AER, p 7-200, "Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure", April 2015

The AER appears to believe that because it has weighted the OEF adjustment toward the more rural service providers that the value of the OEF is appropriate to apply to Ergon Energy. There is apparently no recognition from the AER that:

1. The value of the step changes and pass through amounts that the AER has attributed entirely to bushfire risk constitute 7% of CitiPower's total opex - indicating that these amounts are not, as the AER claims, an indication of the cost disadvantage that Victorian service providers face due to *higher bushfire risk* (given CitiPower operate solely with the Melbourne CBD centre and fringe)*;* or
2. A large proportion of the step change amounts, and therefore the amount that the AER rely upon to calculate the bushfire OEF adjustment for Ergon Energy, is related to the work required to meet vegetation clearance requirements of the 2010 Electrical Line Clearance Code regardless of the location of the network - *and includes amounts to rectify existing non-compliances created by the removal of exemptions associated with sunset clauses in the code*.

Again, for clarity, there is no doubt that the change in the enforcement of the ELCC in Victoria led to increased costs for the Victorian businesses, particularly due to the cessation of previously granted exemptions for the minimum clearance distances in some circumstances (which has meant that these business now have to identify and remediate existing instances of breaches of the code which were previously exempt). However much of the cost used by the AER to calculate the value of the OEF for *bushfire risk* for Ergon Energy is based on these changed circumstances and there is no evidence that the costs of moving to a position of compliance are equivalent to the cost premium of operating in Victoria as opposed to Queensland. Furthermore, AusNet Services in particular have reported the maintenance and other operating costs associated with bushfires and the Royal Commission in their Economic Benchmarking Regulatory Information Notice (RIN). This can be contrasted with the magnitude of costs that the AER has used to calculate the OEF value, shown below:



** These costs are calculated by adding the line items in the AusNet Services EB RIN: DOPEX0108 - Maintenance - Bushfire costs and DOPEX0121 - Bushfire & Royal Commission Costs*

The primary difference in these two data sources in the graph above (other than AusNet being actual costs and the AER data being approved step change values) is that the AusNet RIN costs are likely to be associated with activities resulting as a consequence of the fires, whereas the step change costs relied upon by the AER are predominately related to the vegetation management costs associated with the cessation of exemptions from the Electric Line Clearance Code.

Not only has the AER wrapped up all compliance costs with clearance standards as "bushfire risk", it has not applied the OEF consistently. We note that in the AER's analysis it uses to conclude that Queensland has lower bushfire risk than Victoria, that the ACT has significantly higher bushfire risk than Victoria, yet only a small positive OEF (0.5%) for bushfires has been afforded to ActewAGL (the equivalent of $176,000 per annum). We also note

that the OEF for bushfires that has been applied to Essential Energy in its determination is only -0.5 compared to -2.6 for Ergon Energy, the equivalent of -$1,395,000 per annum and -$6,247,000 per annum respectively. The logic behind the variation in the bushfire adjustment amount is inherent in the broader approach to calculating OEFs, which includes an AER consideration of the materiality and "direction" (positive or negative) of the factor and applying either a positive or negative 0.5% factor where the OEF is deemed to be individually immaterial by the AER. This is explained in the respective decisions for the network service providers, for example:

> **Where an individually immaterial OEF is likely to provide a cost disadvantage we have provided a positive adjustment equal to our materiality threshold, 0.5 per cent, in our collective adjustment for immaterial factors. We have also done this where there is some doubt about if an individually immaterial OEF will provide a cost advantage or disadvantage. Alternatively, where an individually immaterial OEF is likely to provide a cost advantage we have provided an OEF adjustment of negative 0.5 per cent in our collective adjustment for individually immaterial OEFs.**
>
> - AER, p 7-175, "Attachment 7 – Operating expenditure | ActewAGL Final decision 2015–19", April 2015

ActewAGL and Essential Energy were found to be immaterially affected by the bushfire factor to their disadvantage and advantage respectively.

Conclusion

The AER has concluded that the bushfire risk in Victoria is the reason that risk controls should be both lower cost in Queensland and that this also presents the opportunity for Ergon Energy to adopt less stringent controls over the likelihood of realising a risk:

> **...on the evidence before us, Victoria has greater bushfire risk than Queensland. Therefore, one would expect that less expenditure would be required to mitigate those risks in Queensland...**
>
> **On balance we are satisfied that in discharging their duty of care, the Queensland service providers would adopt some of the bushfire mitigation practices of the Victorian providers. However, a prudent and efficient service provider would only do this to the extent that the risks it faces warrant it.**
>
> - AER, p 7-205, "Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure", April 2015

These statements together demonstrate the risk of the AER approach to the bushfire OEF. Specifically:

1. The AER has assumed that the history of greater *realised consequences* of *all* bushfires in Victoria is sufficient evidence that Ergon Energy's management actions to *control the likelihood* of the *network* initiating a fire cost less than in Victoria.
2. The AER has extended this assumption to infer that the value of that cost differential is the equivalent of *all step changes* related to the change in the ELCC clearance requirements and the pass through costs related to the compliance management of the bushfire mitigation programs, regardless of the actual differences in risk control action requirements now or previous to the 2010 ELCC change between Ergon Energy and Victoria.

3. For any doubt that Ergon Energy should still maintain similar duty of care standards as Victorian businesses, the AER has suggested that assumed lower consequences of a bushfire equate to opportunities for Ergon Energy to spend less on its clearance compliance.

It is incongruous to suggest that Ergon Energy should accept clearance distances between its assets and vegetation that are more likely to result in contact just because the potential consequence of that contact may on a given day and location be less than in Victoria. Whilst in doing so Ergon Energy may appear more efficient in benchmarking analysis, this disguises the fact that network risk (a factor not considered in any benchmarking) has increased. Furthermore, it is a slippery slope to posit that network service providers should hedge the risk of a fire initiated by the network causing catastrophic loss against the opex savings that might be made through a more liberal interpretation of standards.

The fact that the consequences of a bushfire in Victoria may be more catastrophic than some other states is accepted. However this does not constitute evidence that network bushfire mitigation controls are more expensive in Victoria than Queensland, particularly when the majority of those controls relate to maintaining a distance between vegetation and assets - something all networks must achieve for outage and other safety reasons, not just for bushfire risk management.

Using the aggregated value of the step changes and cost pass through events as the basis of the OEF adjustment erroneously ascribes the costs associated with the change in vegetation clearance requirements to the exogenous conditions that increase bushfire risk management costs. Whilst the bushfire events of 2009 certainly hastened changes in the ELCC in 2010 and the associated focus on compliance that caused the step change in costs, they did not cause the costs. Given that the line clearance code changes account for more than 80% of the costs that the AER use ($205 million[12] out of a total of $245 million[13]) to calculate the bushfire OEF, there is every chance that the AER has overestimated the value of the OEF through incorrectly ascribing a change in compliance and enforcement requirements as an exogenous attribute of the operating environment. This is not to say that the change in enforcement and compliance requirements is not a legitimate difference in circumstance itself, however the AER has not presented any evidence that the requirements before or after the introduction of the 2010 version of the ELCC are more or less stringent as those that Ergon Energy adheres to. Demonstrating a difference between the requirements for Victoria between 2005 and 2010 does not inform any such comparison between Victoria and Queensland. Similarly, there is no evidence that demonstrates that the exemptions allowed under the 2005 version of the ELCC did not represent a cost advantage to the Victorian businesses between 2006 and 2010 rather than a cost disadvantage to the businesses post-2010.

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12 AER, Ergon Energy Preliminary Determination 2015-20, Attachment 7 - Operating Expenditure, page 7-205

13 AER, Excel file: Operating Environment Factors - QLD.xlsx

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