

SUBMISSIONS TO THE QUEENSLAND COMPETITION AUTHORITY CONCERNING

(1) ITS DRAFT DETERMINATION OF REGULATION OF ELECTRICITY (2005); AND,

**(2) SUBMISSION PURSUANT TO RECOMMENDATION 14 OF AN ACTION PLAN
FOR QUEENSLAND ELECTRICITY DISTRIBUTION**

By

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Claim for confidentiality.

I claim confidentiality in respect of information that can identify my home address. This confidential information is on page 1 of these submissions and in the reference to feeder XXXX and XXXX on page 5.

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Submission 1. Submission relating to the draft Determination of Regulation of Electricity (2005)

1.1 Operating Expenditure

It is inappropriate for Energex to derive benefit from any part of the \$15 million identified on page 134 of the draft Determination that Energex is not strictly entitled to. The value of the undeserved benefit should be subtracted from the calculation of the price cap unless it is used as a financial incentive as proposed below.

1.2 Financial Incentives

1.2 New public consultation before a financial incentive is determined in respect of improving network reliability

A financial incentive based on improved service reliability should not be considered at this time. Given the increased community awareness of distribution network issues and the disclosures concerning Energex's management practices since the 2004 round of public consultations on financial incentives, a new public consultation process should be undertaken by QCA during the next regulatory period.

1.3 A Financial incentive for meaningful, transparent, and comprehensive performance reporting

As soon as possible, Energex should be given financial encouragement to publish reliability measures, quality measures, including momentary interruptions, for each sectionalisable segment of urban and rural feeders. This should preferably be done on Energex's website using user friendly technological such as that used by Government Departments.

The content of the website should be subject to editorial control and review by an appropriately qualified and independent authority whose terms of reference include a duty to ensure that information is accurately presented. The costs of the committee should be funded by the financial incentive.

In this way areas of extremely poor service, for which both affected customers and unaffected customers will be critically concerned about, will be open to public scrutiny. The problem with system averages is that extremely poor service area are not visible as was recognised by QCA in its 2001 determination on page 160. In addition as page 177 of the draft Determination notes "the reporting of service quality can create pressure to lift performance by allowing customers, the media and stakeholders the critically assess the DNSP's performance".

The part of the \$15 million dollars in undeserved benefit received by Energex during the current regulatory period and identified by the QCA on page 134 of the draft Determination should be used as the financial incentive for Energex to set up and operate the system over the next the next regulatory period. But if this is not enough QCA should provide any additional financial incentive as the costs involved will be well worth it.

1.4 Compliance Monitoring and Reporting

1.4.1 Community Safety Performance Reporting

Table 1 is a sample of media reports of Energex power lines contacting property, or causing bushfires. The large number and seriousness of these reports justifies an Energex being compelled to publicly report them.

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QCA should require Energex to report: (i) each pole failure; (ii) each incident of a power line contacting, or creating a risk of flashover to, people or property; (iii) each fire attended by a fire brigade for which a failure of Energex equipment is a contributory cause.

1.4.2 Momentary Interruptions

In the 2001 determination the QCA did not require Energex to report on momentary interruptions explaining on page 164:

“the Authority considers it prudent to delay the introduction of MAFI until the costs associated with it are examined and the theoretical issues are resolved”.

However the draft Determination is silent on momentary interruptions.

Monitoring momentary interruptions is important for two reasons: (i) the increased and growing dependency on electronic equipment since 1980; (ii) spatial and temporal trends in momentary interruptions are a good indicator of when design problems are not being addressed and preventative maintenance is inadequate.

Examples of (i) are:

Chamberlin et al (1991, p.267) explain that a monitoring system was installed and was operational by 1987 to respond to customer concern for the effects of momentary interruptions. The frequency of momentary interruption reported in the paper was an average of one every 334 days which is probably many times lower than currently achieved by Energex.

Coate and Wareham (1996, p458) state that in the 10 years preceding their article consumer perception to momentary outages had changed from insignificant blips to serious inconveniences as a by-product of new electronic technologies and that consumers are more dependent of electricity and have higher levels of expectations Coate and Wareham (1996, p462).

Brown and Pidcock (1997, p.169) refer to the enormous growth in electronic loads and a corresponding increase in the impacts that momentary interruptions have on customers.

Sullivan et al (1996, p.993) reported that for 50% of customers an interruption of 1 to 2 seconds would result in outage costs in excess of US \$1,500, 10% of customers said the cost of a momentary outage would exceed US \$45,000, for customers who said that momentary outages incurred costs the average cost was estimated at US \$72,426.

EDSD Review (2004, p. 71) “The panel received many submissions expressing dissatisfaction with reliability in urban and rural areas. While many of the outages in the submissions could be classified as momentary interruptions ...”

An example of (ii) is my own experience with both a high level of momentary interruptions to my home (which suggests that high voltage components are too close together for the for an area rich in wild life) and with a increase frequency of momentary interruptions during the current regulatory period corresponding to decreased vegetation management.

Momentary interruptions are more a measure of a quality of supply (in the same sense that a voltage dip is a quality issue) rather than a measure of system reliability and therefore should be reported as a quality of supply indicator rather than a reliability measure. That said a requirement on Energex to report momentary interruptions is likely to ensure that Energex has

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an appropriate focus on fault reduction across its network which will lead to reliability improvements.

The examples (i) above show that momentary interruptions can be costly to consumers and are of serious concern to consumers when they are frequent events. The fact that some effort will be required by Energex's to report on momentary outages should not be used as an excuse for ignoring momentary interruption reporting, particularly given Energex's history of avoiding preventative maintenance and limited effort made by Energex to minimise faults across its network evidenced by ESDS Review (2004).

In summary QCA should require Energex to report on momentary interruptions for each feeder type, including the worse performing feeders in terms of frequency of momentary interruptions, during the next regulatory period.

1.4.3 Reporting on complaints dealt with by an Energex representative with authority to resolve the complaint.

My impression from making complaints to Energex is that the people assigned to deal with those complaints are only in a position to provide limited information and argue. To provide a better understanding of Energex's performance in handling complaints, QCA should require Energex to report on the number of complaints responded to with: (i) by a person with the authority to make proposals to the complainant to resolve the complaint; and (ii) the number of complaints that resulted in practical action being taken by Energex.

| Table 1. Media Reports of power lines contacting property, the ground, sparking bushfires. | |
|---|---|
| The Courier-Mail 13.12.2004 | Report of bushfire at Kenilworth Bluff in the Sunshine Coast hinterland which was started by a fallen Energex power line and which burnt hundreds of hectares of bush or farmland were and several families had to be rescued by volunteers from six rural fire brigades. |
| ABC 24.11.2004 | Report of fire in the Helidon-Iredale area started by a fallen Energex power line. |
| The Courier Mail 28.07.2004 | Report of a grassfire which threatened 30 homes and a school at Rosewood started by an fallen Energex power line with a comments from: A rural fire brigade officer reported to recall at least 20 fires that had started the same way in the area over the past five years. |
| The Courier Mail 13.10.2004 | Report of a grassfire in Taringa and Toowong caused by a fallen power line. Fire and Rescue Service officer had to protect cars from the fire. |
| The Courier Mail 28.07.2004 | Report of a Moy Pocket dairy farmer saying he could have been electrocuted when Energex powerlines collapsed over his cow yards. |

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Submission 2 relating to Recommendation 14 of the Government's Action Plan for Queensland Electricity Distribution

The QCA has direct responsibility for implementing Recommendation 14 of the Government's Action Plan for Queensland Electricity Distribution. It is clear that this particular responsibility given to QCA does not arise from the National Electricity Code. Therefore the revisions proposed in the draft Determination do not adequately address the responsibility given to QCA by the Government. As the QCA's responsibility arises from the ESD Review, the background to Recommendation 14 is therefore relevant to the proper discharge of this responsibility, in particular:

ESD Review (2004, p. 69) "the Panel considers that arbitrary adjustments of this nature do not result in an appropriate indicator of the distributors' network performance, particularly when they can take measures to minimise the extent and impact of outages (such as by vegetation management ..."

ESD Review (2004, p. 81) finding 5.4 "this normalisation does not assist customers".

ESD Review (2004, p. 126) "Energex operating personnel commented to the Panel that a lack of vegetation management was the primary cause of outages during storm periods".

In other words the new normalisation criteria must not be arbitrarily and must expose a system whose resilience to natural forces is inadequate and/or deteriorating.

Energex records do not identify the true number of outages nor their true durations

One problem with the QCA proposals is the reliance on Energex's data despite the QCA's comment on page 178 of the draft Determination that Energex's past reliability indices are "not entirely robust". Moreover, I can provide irrefutable evidence to QCA of two long duration outages that affected feeder XXXX, which supplies my home, which according to Energex, are not indicated by their records:

Outage from about 8:20pm on 24 January 2004 to about 8:40pm on 25 January when a dead tree fell on the 11 kV line. Energex say their records show only a momentary interruption on a related 33kV feeder at 8:40pm on 24 January 2004 for which no cause was found and a second outage from 8.00 am on 25 January to 2:05pm on 25 January 2004.

Outage from sometime before 6pm on 30 January 2004 to sometime after 9pm on 30 January 2004. The website www.treeless.org/page4.html lists an outage to XXXX from 4.15 pm to 11.00pm on this day. Energex say their records show a momentary interruption at 4.15pm and that no cause was found.

Since the above shows that not all outages are included in the Energex database the raw formula for estimating the threshold for exclusion events is biased against assisting consumers.

An important principle identified by the ESD Review and echoed in the Government's Action Plan is that the normalisation must assist customers. Therefore doubts in the quality of Energex's historical data must be resolved in a way that assists customers rather than assisting Energex's profits, or the operation of the National Energy Market.

Page 3 of the draft determination states "The threshold is set such that, on average, 2.3 days exclusion days could be expected in any given year". No reason is given for the selection of

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2.3 days or the change from a 3-beta multiplier proposed by the ESDS Review. This makes QCA's normalisation proposals arbitrary and contrary to the aim of the ESDS Review.

Moreover 2.3 days on average is too big a number for an essential service and will not assist consumers in respect of a network whose resilience to natural forces is deteriorating; it is even higher than the number of exclusion events averaged over the current regulatory period.

Parallels should have been drawn with design criteria for other utilities or structures. For example, it is inconceivable that someone would seriously propose that the Brisbane standards for housing roof hold down would assist their occupants if almost all rooves were to detach 2.3 times a year on average.

Essential services are often designed to resist a storm of a magnitude characterised by an average return interval, sometimes as much as once in one hundred years. A storm average return interval can be transformed to a beta multiplier and therefore provide a reasoned basis for a beta multiplier. Alternatively a beta multiplier corresponding to on average one exclusion event every 10 years would seem appropriate.

In summary, QCA should revise the beta multiplier upwards to some number bigger than a value of 3 proposed by the ESDS Review to resolve the doubts on the quality of Energex's data base in favour of consumers; and, if that value is lower than the equivalent extreme event return interval used for another essential service, give reasons why the lower number is specified.

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