

Ergon Energy Corporation Limited

**Minimum Service Standards for 2008-2009
– Response**

**Queensland Competition Authority
3 November 2009**

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1 General Comments Addressing Matters Raised by the Authority

1.1 General Approach of Ergon Energy to Achieving Electricity Industry Code (the 'Code') Objectives

On 29 May 2009 Ergon Energy wrote to the Queensland Competition Authority advising that due to the combination of severe weather conditions over the past two quarters, coupled with a Live Line work suspension and union initiated bans on operating Air Break Switches (ABS) associated with equipment failure, Ergon Energy was forecasting to exceed 2008-09 year end MSS limits for some feeders. Ergon Energy has always, and will continue to advise the Authority as soon as it becomes aware of any compliance issues.

The objectives of the Electricity Industry Code (the Code) are to promote effective use of and efficient investment in electricity services for the long term interests of electricity customers. Ergon Energy's purpose, consistent with the Code, is to enhance the economic and lifestyle aspirations of its customers through the delivery of sustainable energy solutions. In seeking to achieve this purpose Ergon Energy is required to balance and manage a range of considerations applicable to its distribution network, including in relation to price, quality, reliability, safety and security.

In this context, the Authority has sought a more detailed explanation of each of the factors previously noted by Ergon Energy as having contributed to its performance against the MSS in 2008/09.

There have been three principal contributing factors to Ergon Energy's 2008-09 unfavourable performance, namely:

- Live line suspension undertaken as a precautionary safety measure;
- Operating restrictions on ABS as a result of union initiated bans; and
- More severe storm season.

Individually, each has had a significant impact on our overall performance and combined have resulted in Ergon Energy not being able to meet the MSS. It should be noted that these three factors continue to influence our 2009-10 performance putting achievement of the MSS targets at risk. The phased re-introduction of Live Line capability has seen some improvement in August and September 2009.

However, any assessment of Ergon Energy's ability to achieve compliance with the MSS in 2008/09 needs to be put in context with the universally applied safety hierarchy in the Electricity Utility Industry, namely:

- Safety of employees and the public.
- Safety of plant and equipment.
- Continuity of supply.

Ergon Energy has a robust and accredited safety management system committed to 'Zero Harm' and an 'Always Safe' philosophy. Accordingly, Ergon Energy recognises the duty of care obligation owed by the company and its officers to the community at large and to its customers, contractors and employees to ensure the safety of its network.

Accordingly, when put in a position where a choice is required, Ergon Energy must choose the safety of its employees, contractors and the public over continuity of supply. In particular, Ergon Energy draws the Queensland Competition Authority's attention to the requirement for Ergon Energy to maintain compliance with its safety obligations under section 29 of the *Electrical Safety Act 2002*.

In this case, Ergon Energy decided on 19 February 2009 to suspend all live line work on its assets until further notice as a precautionary safety measure. In late March 2009, having examined various options, Ergon Energy decided that the most sensible, prudent and cost effective manner in which it could achieve its safety imperative was to undertake a complete rebuilding of the live line safe system of work.

1.2 Background Information relating to decision to suspend live line works

The above-mentioned decisions were made in the aftermath of a serious Class 1 live line incident at Stanthorpe that resulted in serious burns to an Ergon Energy employee and in recognition of the fact that over the previous thirteen months, Ergon Energy experienced several serious live incidents, with four of these incidents being treated as Dangerous Electrical Events, as defined under the *Electrical Safety Act 2002*.

Following the initial suspension of live line works on 19 February 2009, Ergon Energy's senior management team met and considered the matter further to determine what the longer term response to the safety issues experienced in the live line area would be. Ergon Energy management considered the impacts of the various incidents that had occurred and the various learnings from them in relation to the manner in which it conducted live line works.

The company was also aware that a review of the Australian Standard for live line was underway and that changes in the standard would lead to increases in the minimum approach distances used by Ergon Energy prior to the suspension being implemented.

Further details of the options considered to improve the live line safe system of work appear in section 2.3 of this report.

1.3 Assessment made of likely impacts of live line suspension on overall performance

The decisions mentioned above were taken with the knowledge that they would have an adverse impact on our reliability performance.

At the time of the decision, the full extent of the impact could not be anticipated precisely. In February and March 2009, the cyclone season was still active with extensive flooding in regional Queensland abating slowly and despite this Ergon Energy's performance against the year to date MSS targets was not considered problematic at that time.

Ergon Energy management believed, at the time, that with planned mitigating actions it could maintain the MSS performance within the limits set out in the Code. Hence, at the time of making the decision it was clear that staff, contractor and community safety was a real and immediate issue that needed to be addressed and that MSS performance, while always uncertain to some degree during storm season, was not seen as a comparable risk.

In these circumstances, Ergon Energy was decisive in putting safety first.

However, as events have transpired and due to the relatively high contribution planned outages contribute towards Ergon Energy's SAIDI and SAIFI results, the combined impact of the three factors mentioned above, even when coupled with the mitigating actions we took, were too great to enable the company to remain within the MSS limits for 2008-09 set out in the Code for all but the long rural SAIFI measure.

Ergon Energy's reliability performance for this regulatory period is shown in Figure 1. Despite the network performance being severely impacted from Cyclone Larry in 2005-06 it has remained favourable to all the MSS's consistently for the financial years 2006-07 and 2007-08. It should also be noted that strong demand for connection services from customers over this period far exceeded the investment allowed by QCA in its 2005 determination putting upward pressure on SAIDI and SAIFI to enable connection and downward pressure on funding available for reliability projects. Investment over this period has focused on network resilience (maintenance) and security (capacity & redundancy).

Ergon Energy is proud of the above achievement given the particular challenges faced by it as a distributor in meeting its SAIDI and SAIFI targets due to the extensive radial nature of Ergon Energy's network which make it more susceptible to longer outage durations (both planned and unplanned). These challenges (including the impact planned outages have on SAIDI and SAIFI) have been recognised by the Queensland Competition Authority, and independent experts, such as Evans & Peck, during the latest review in April 2009 of Electricity Distribution Network Minimum Service Standards and Guaranteed Service Levels to apply in Queensland from 1 July 2010.

It is important to note that Ergon Energy has not benefited in any way by not achieving the MSS.

No work has been deferred as a result of the three factors that have significantly influenced the MSS performance, and although extremely difficult to quantify, there would have been an increase in costs associated with the emergency response to the storms and flooding, the ban on Live Line work and the safe operating procedures that were put in place for the ABS's. Ergon Energy's Regulatory Financial Statements show both a capital and an operating expenditure for the 2008-09 year in excess of the regulatory allowances.

Since 2004-05 Ergon Energy has consistently achieved a supply availability of above 99.9% as an average across the entire network. For 2008-09, the supply availability to our customer base was also 99.9%. This performance represents improving network robustness due to the significant investment in failure prevention and improved asset management over the past and current regulatory periods.

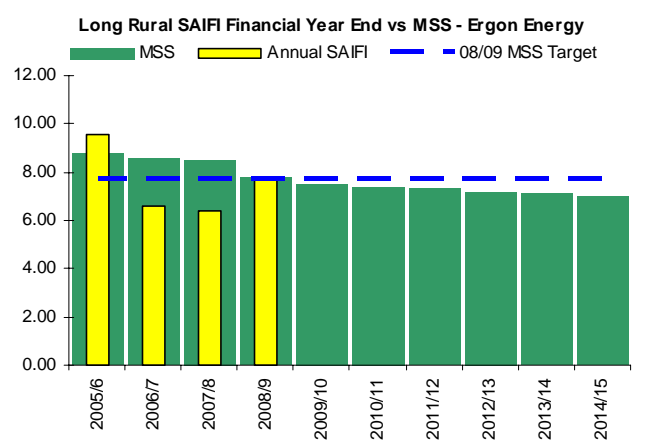
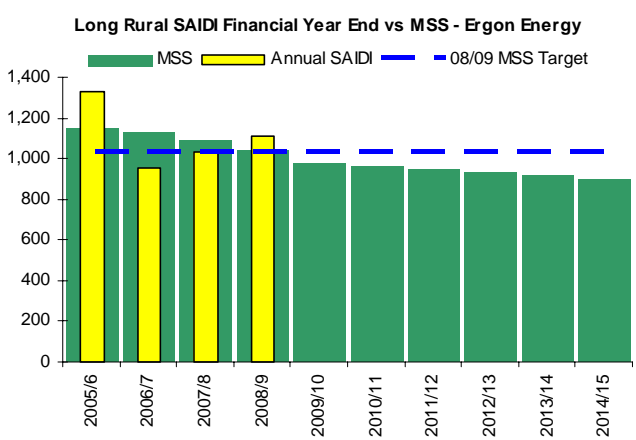
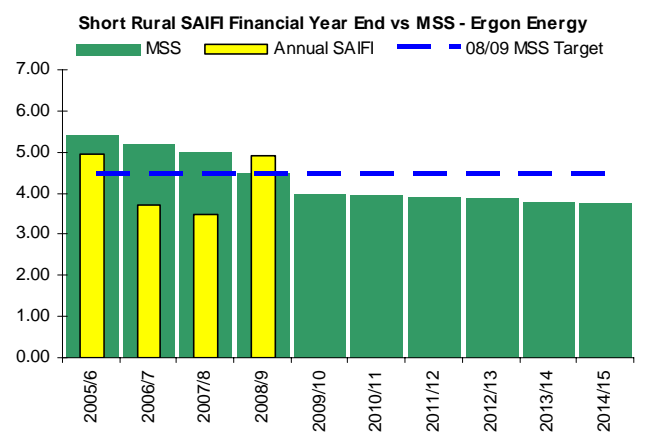
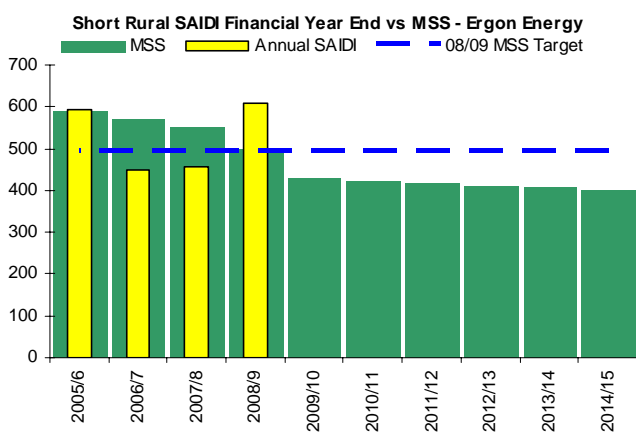
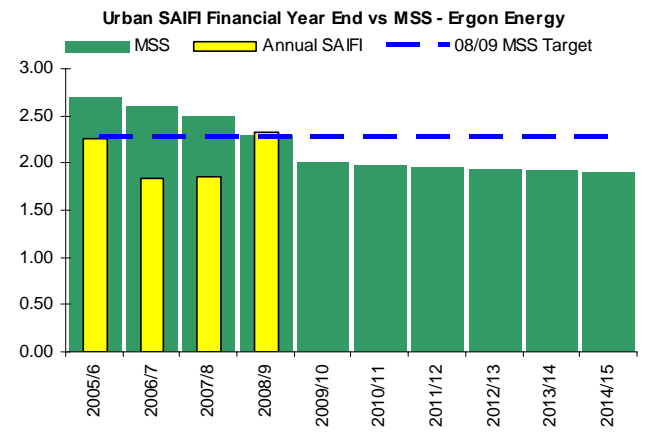
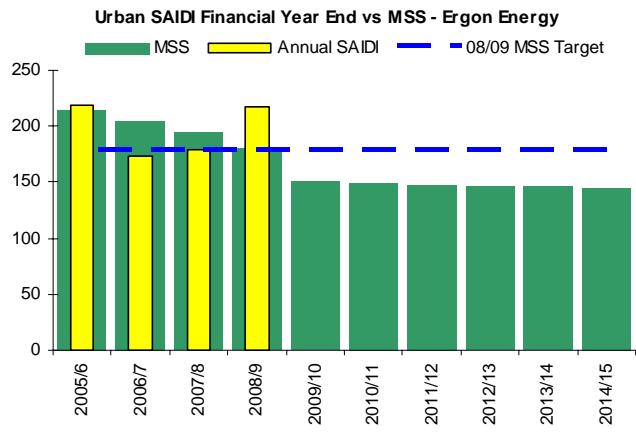


Figure 1: SAIDI/SAIFI trends for Urban, Short Rural and Long Rural feeders



2 Specific Comments Addressing Matters Raised by the Authority

The factors mostly affecting the 2008-09 overall performance are discussed in detail, against the specific areas requested by the QCA, below. It should be noted that each of the three items mentioned in section 1.1 adversely affects each SAIDI and SAIFI measure. Where possible, further analysis has been provided to assist in understanding and describing the impacts across each measure, however, it is not possible with the data available and due to the general nature of our network topology to specifically quantify the impact of each issue in isolation from the other.

2.1 Detailed explanation of the factors affecting Ergon Energy's ability to meet its MSS

2.1.1 Live Line bans

Source of the factor

On 19 February 2009 the Chief Operating Officer of Ergon Energy issued a directive to all staff immediately suspending all live line work on Ergon Energy assets. This decision was made in the immediate aftermath of a serious Class 1 live incident at Stanthorpe that resulted in serious burns to an Ergon Energy employee. Within the 13 months prior to this directive there were a number of serious live line safety incidents occurring with an increasing frequency, including the serious injury of an employee on 19 February 2009. Ergon Energy takes these sorts of incidents extremely seriously as the safety of our staff are paramount. Four of these incidents were classified as Dangerous Electrical Events by the Electricity Safety Office and one of the events resulted in a prosecution and fine for Ergon Energy.

Why this factor detracts from Ergon Energy's ability to meet its MSS

Since the suspension of the live-line work there has been an increase in the planned network outages adversely impacting the overall reliability performance for all three feeder categories. This can be clearly seen in Figure 2. As the cornerstone of our ability to carry out maintenance with minimal disruption to our customers and to maintain asset inspection and defect maintenance cycles under the Code of Works under the *Electrical Safety Act 2002*, it was inevitable that the suspension of 'live' line work would have an adverse impact on our network reliability performance measures, although it was thought, at the time, that the suspension of live line work would not result in Ergon Energy exceeding its MSS limits. This impact is continuing to show itself in our 2009-10 results to date.

2.1.2 Operating Restrictions on ABS

Source of the factor

Ergon Energy, through its well established inspection and maintenance program and the monitoring and analysis of equipment failure rates, identified that a significant number of Air Break Switches on the network that are used to isolate sections of the network, posed a risk to its employees due to the potential failure of the porcelain insulators on these devices.

A safety alert was issued in 2008 which implemented a safe system of work in areas within 50 kilometres of the coast line or where corrosion from salt laden moisture was a known problem. This was developed on the basis of failures of porcelain insulators where the failure mode was identified as corrosion of the insulator pin which resulted in cracking of the insulator and subsequent failure when subjected to operational stresses.

It is understood that the ABS failure issue is a problem affecting a number of other utilities that utilise this component.

In 2008, the Electricity Trades Union placed a ban on the operation of these devices by their members in relation to the above failure mode.

A second systemic failure mode developed and became noticeable in April 2009 with a number of ABS's insulators shearing under torsional load. The cause of this mode of failure has not yet been determined conclusively, however, early indications appear indicate an issue with the components design.

In response to the ban and appearance of the second failure mode, Ergon Energy has worked closely with the union as well as the equipment manufacturer, other utilities that use the same equipment and an independent testing laboratory and in October 2009 reissued the safety alert with agreed operating actions allowing the work ban to be removed. Subsequent to this the Electrical Trades Union have raised additional issues that are currently being worked through and the ban remains in place in two regions.

There are approximately 3,000 of the above-mentioned make and model air break switch in the system that are subject to the failure modes described above.

Why this factor detracts from Ergon Energy's ability to meet its MSS

With a ban in place, the ability to isolate sections of the network to carry out planned maintenance was severely limited and resulted in **larger sections** of the network requiring to be isolated and hence a larger impact on the network performance. With the safe operating procedures in place this remains an issue if the ABS is identified as being at risk of failure.

2.1.3 More Severe Storm Season

Source of the factor

The extended wet season and serious flooding during the third quarter of 2008-09 greatly influenced the overall network performance experienced by our customers. During this period Ergon Energy's supply area experienced severe storm activities including three cyclones which were accompanied by significant extended flooding. By early February, some 62% of Queensland was inundated by flood waters for a significant period.

Why this factor detracts from Ergon Energy's ability to meet its MSS

To ensure community and customer safety, Ergon Energy authorised a number of forced outages to make safe sections of the high voltage overhead network that breached statutory clearance due to elevated flood water and to isolate customer installations that were at risk of water inundation. These outages were not excludable under the Electricity Industry Code clause 2.4.3(b)(v). In addition, the auto-reclosing functionality on the distribution feeders that traversed floodwaters was disabled to minimise the risk to the public from grounded high voltage conductors. In the event of a transient fault where the protection systems are designed to automatically reclose, they were set to immediately isolate the line requiring an inspection prior to re-energising and resulting in a much longer interruption than would normally be experienced.

The flood waters also impeded access by Ergon Energy's field staff to investigate and repair faulty sections of the network, further delaying restoration of supply.

2.2 Impacts on overall performance due to the various factors

2.2.1 Live Line bans and Operating Restrictions on ABS

Due to the data structure of Ergon Energy's Outage Management System (OMS), it is not feasible to segregate the planned outage contribution from the suspension of live line work and the operating restrictions placed on the ABS from the overall performance report. The impact that these two factors combined had on planned outages is detailed below.

In comparison to the past 5 years, Ergon Energy returned the highest planned outage durations and frequencies during 2008-09. Planned outages contributed to 32% of Ergon Energy's SAIDI (compared to 26% in 2007-08) and 20% of SAIFI (compared to 17% in 2007-08). This excludes the outage events at a service fuse and beyond. Ergon Energy's vastly radial subtransmission network and considerably long feeder lengths makes it more susceptible to longer planned outage duration.

The combined effect of both the suspension of Live Line Works (LLW) and the operating restrictions imposed on the ABS reflected in the increase in planned outage duration and frequency by **142%** and **143%** respectively between February and June 2009.

Table 1 below shows the % increase in total annual planned customer minutes from 2007-08 to 2008-09 by feeder category.

Table 1: % increase in Planned customer minutes and customer interruptions between 2007-08 and 2008-09

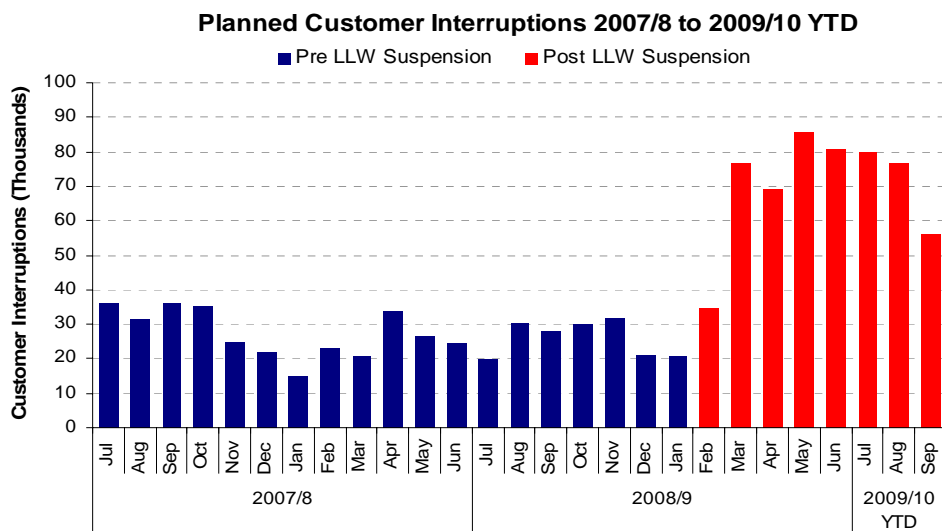
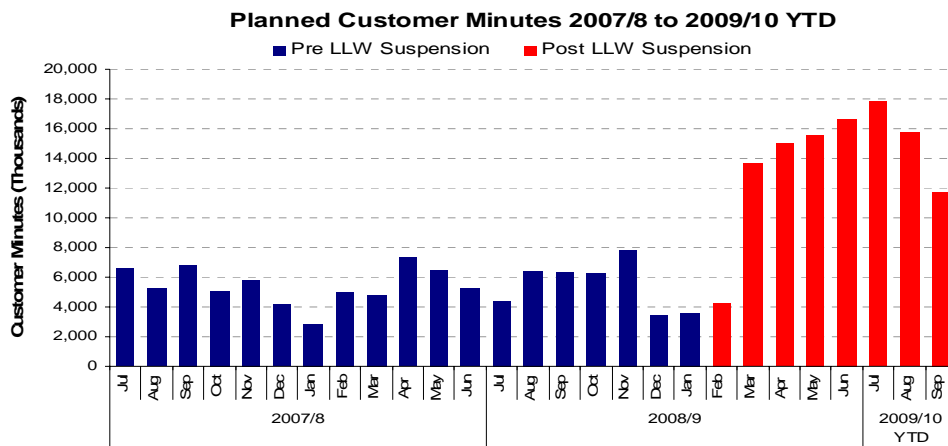
Customer Minutes			
	2007-8	2008-9	% Increase
Overall	65,434,290	103,384,830	58%
Urban	12,347,444	15,267,791	24%
Short Rural	35,467,370	63,896,074	80%
Long Rural	16,679,007	22,681,289	36%
Customer Interruption			
	2007-8	2008-9	% Increase
Overall	329,452	529,006	61%
Urban	60,031	86,259	44%
Short Rural	181,452	324,792	79%
Long Rural	79,759	110,743	39%

The planned works on the Short Rural and Long Rural feeders had a more significant impact on reliability performance when compared to Urban feeders due to their predominantly radial nature (no network alternative feeds). Live line work would normally be used for subtransmission maintenance work wherever possible. Suspension of live line work has significantly increased the number of planned outages

on the radial subtransmission segments. This has a significant impact on the measured network performance due to the larger number of customers connected below the sub transmission level and the inability, due to the radial nature of the system, to provide alternative supply during the planned works.

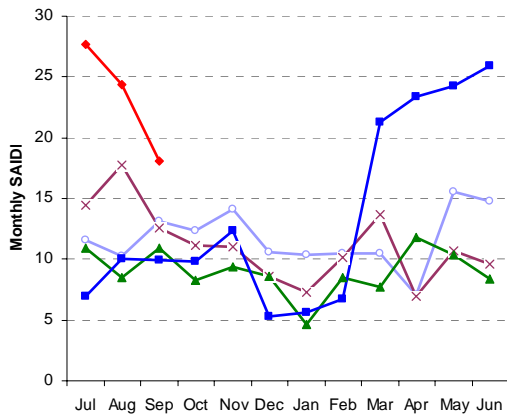
Short Rural feeders have the highest customer base and nearly 40% of short rural feeder customers are supplied from radial subtransmission network segments. Nearly 65% of Long Rural feeder customers also rely on supply from radial subtransmission, making them more susceptible to planned work frequency and duration.

Figure 2 shows the comparison of customer minute and customer interruptions from planned works before and after the safety initiated suspension of Live Line Works. As can be observed from the overall graphs and the graphs applicable to each MSS measure since 2005-06, the monthly planned work duration and frequency reached the record high values as soon as the live line work practices were put on hold towards the end of February 2009. A positive point to note is the reductions in planned outages in August and September 2009, which have been influenced by the phased reintroduction of Live Line capability.



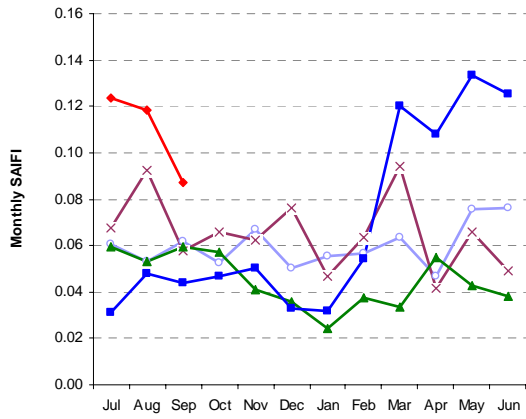
Monthly and YTD Planned SAIDI - Overall

○ 2005/06 Actual SAIDI × 2006/07 Actual SAIDI ▲ 2007/08 Actual SAIDI
 ■ 2008/09 Actual SAIDI ◆ 2009/10 Actual SAIDI



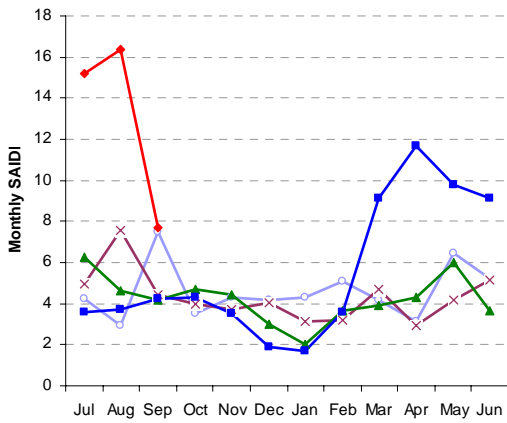
Monthly and YTD Planned SAIFI - Overall

○ 2005/06 Actual SAIFI × 2006/07 Actual SAIFI ▲ 2007/08 Actual SAIFI
 ■ 2008/09 Actual SAIFI ◆ 2009/10 Actual SAIFI



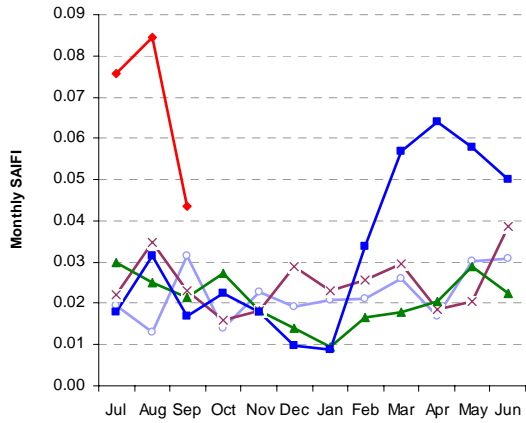
Monthly and YTD Planned SAIDI - Urban

○ 2005/06 Actual SAIDI × 2006/07 Actual SAIDI ▲ 2007/08 Actual SAIDI
 ■ 2008/09 Actual SAIDI ◆ 2009/10 Actual SAIDI



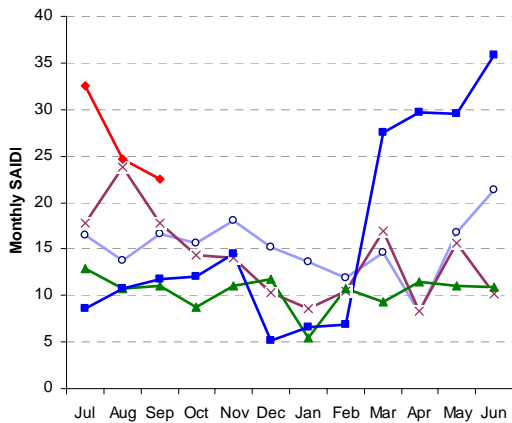
Monthly and YTD Planned SAIFI - Urban

○ 2005/06 Actual SAIFI × 2006/07 Actual SAIFI ▲ 2007/08 Actual SAIFI
 ■ 2008/09 Actual SAIFI ◆ 2009/10 Actual SAIFI



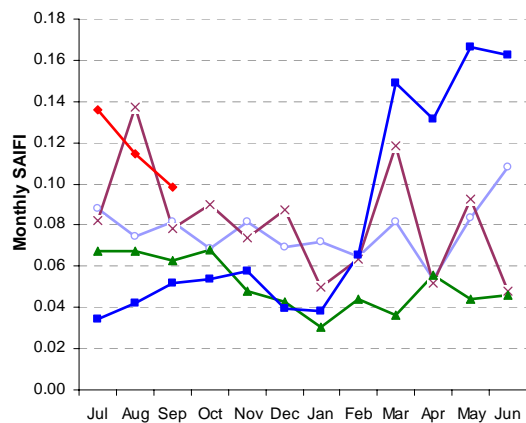
Monthly and YTD Planned SAIDI - Short Rural

○ 2005/06 Actual SAIDI × 2006/07 Actual SAIDI ▲ 2007/08 Actual SAIDI
 ■ 2008/09 Actual SAIDI ◆ 2009/10 Actual SAIDI



Monthly and YTD Planned SAIFI - Short Rural

○ 2005/06 Actual SAIFI × 2006/07 Actual SAIFI ▲ 2007/08 Actual SAIFI
 ■ 2008/09 Actual SAIFI ◆ 2009/10 Actual SAIFI



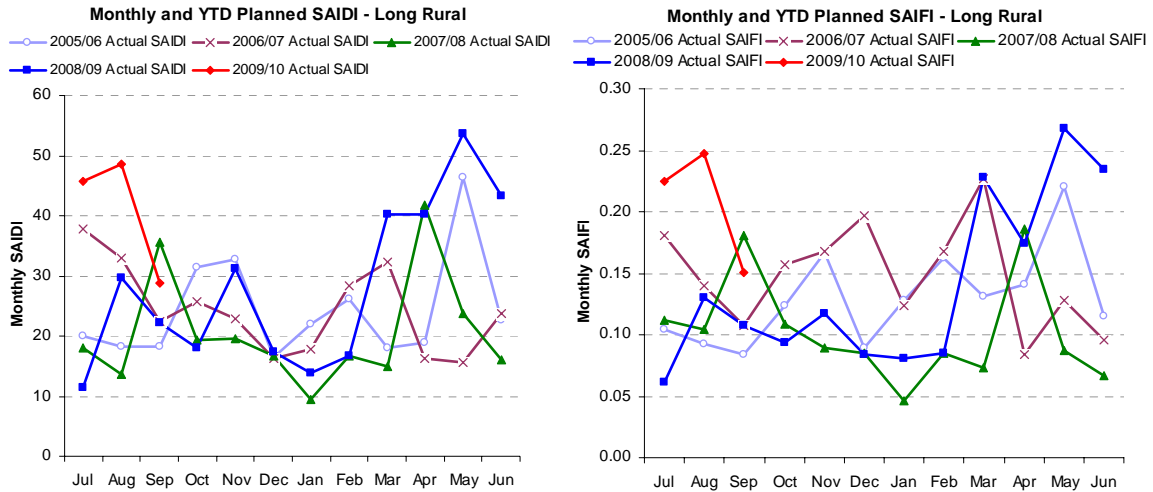


Figure 2: Comparison of monthly Planned Customer Minutes and Interruptions Pre- and Post LLW suspension

Distribution line defect maintenance remains the largest contributor to the planned performance for 2008-09. This work is required to maintain compliance with the Code of Works under the *Electrical Safety Act 2002* and to ensure the safety of the Ergon Energy assets as well as minimise the risk of unplanned outages. Over the past five years this program of work has significantly improved the resilience of the Ergon Energy Network.

Planned customer minutes due to line maintenance work increased approximately by 300% between February 2009 and June 2009, representing the record monthly values since July 2005. Planned Outage customer minutes due to line maintenance peaked to the record high values in March 2009 and following – that is, as soon as the live line works were suspended. The impact however has improved significantly in recent months due to staged reinstatement of Live Line work practice. This is illustrated in Figure 2 above and Figure 3 below.

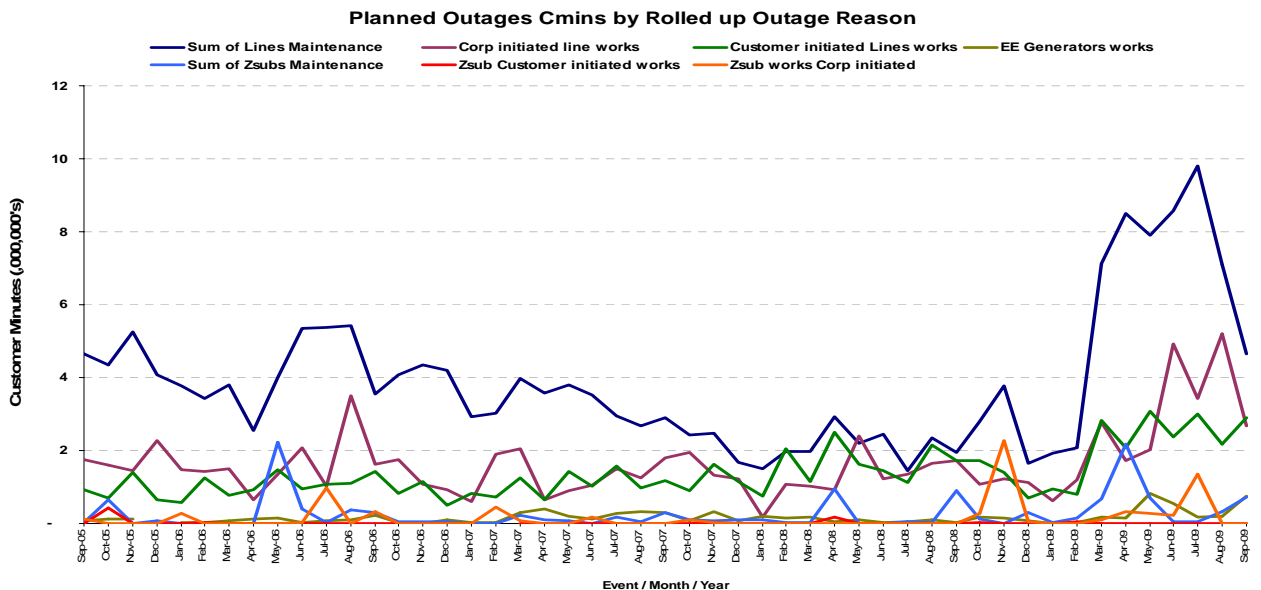


Figure 3: Planned outages customer minutes by Standard Outage Reason

2.2.2 More Severe Storm Season

Ergon Energy's network assets are highly exposed to the environment and subject to adverse weather conditions. Figure 4 below shows the comparison of the number of weather related supply interruption events per month for the last three financial years. As can be observed 2008-09 financial year had the highest number of weather asset related events, especially during the storm season.

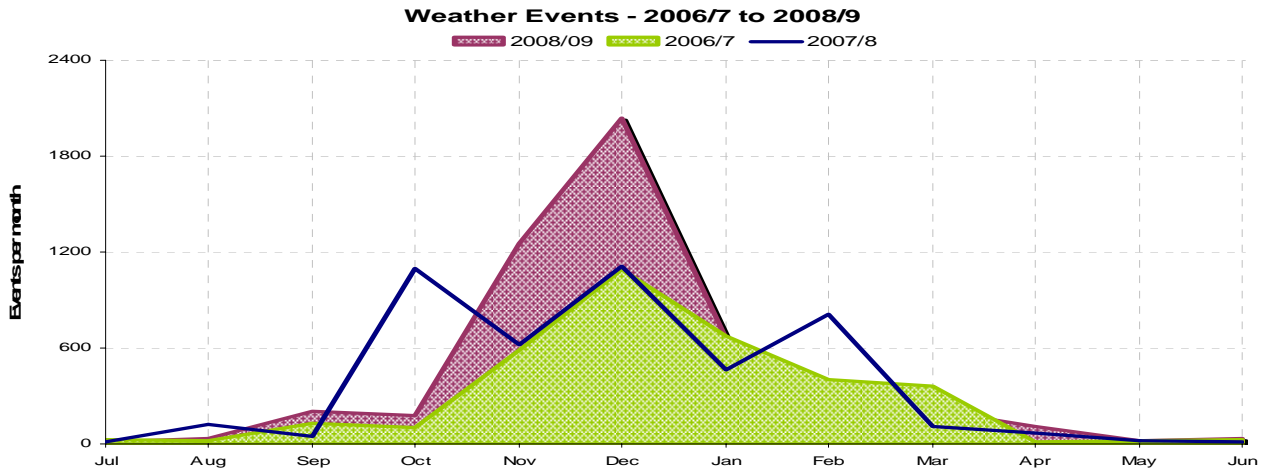


Figure 4: Annual Patterns for Weather Events

The severe weather and flood conditions have had an adverse impact on the overall network reliability particularly given a number of supply interruptions resulted in very high daily SAIDI but not significant enough to qualify as a Major Event Day. In 2007-08, Ergon Energy suffered eight Major Event Days (which would have added 100 customer minutes), while it suffered only three Major Event Days in 2008-09 (which would have added 42 customer minutes). This can be observed in Figure 5 which illustrates that a considerable number of days during the storm season (Nov 2008 – Jan 2009) had notably high daily SAIDI which mostly resulted from adverse weather conditions across the state.

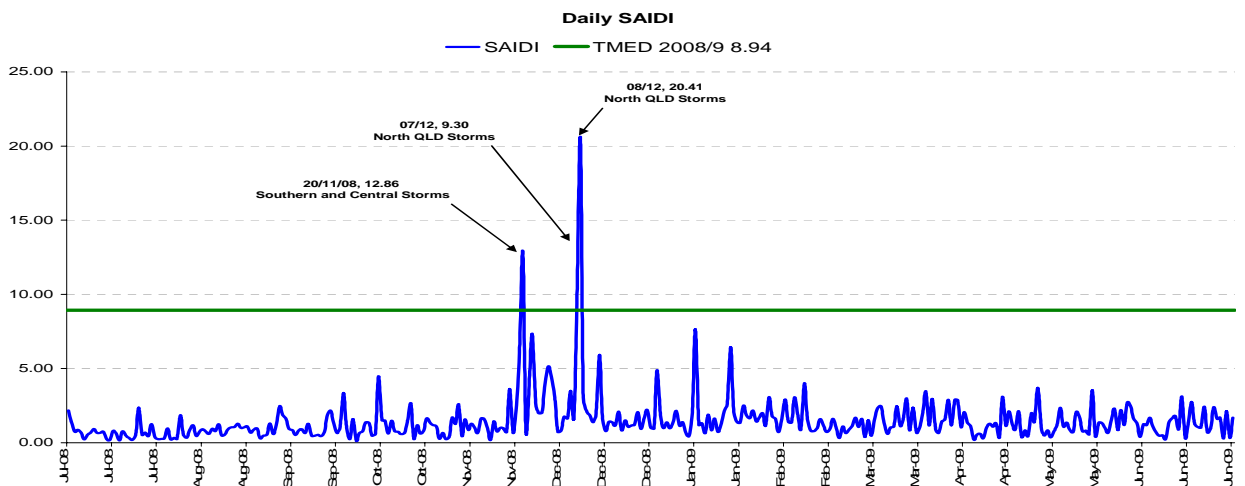


Figure 5: Daily SAIDI plot for 2008-09

In terms of the overall impact unplanned outages have on each of Ergon Energy's SAIDI and SAIFI performance measures is concerned, the following graphs in Figure 6 provide an interesting snapshot of how the weather patterns described in Figures 4 and 5 impact the company's performance at a global level. As can be seen from Figure 6, the impact of unplanned outages are significantly reduced in years where the company's network is subject to relatively benign weather patterns (e.g. 2006-07 and 2007-08) compared with the severe weather patterns experienced in 2005-06 (Cyclone Larry) and 2008-09 (three tropical cyclones).

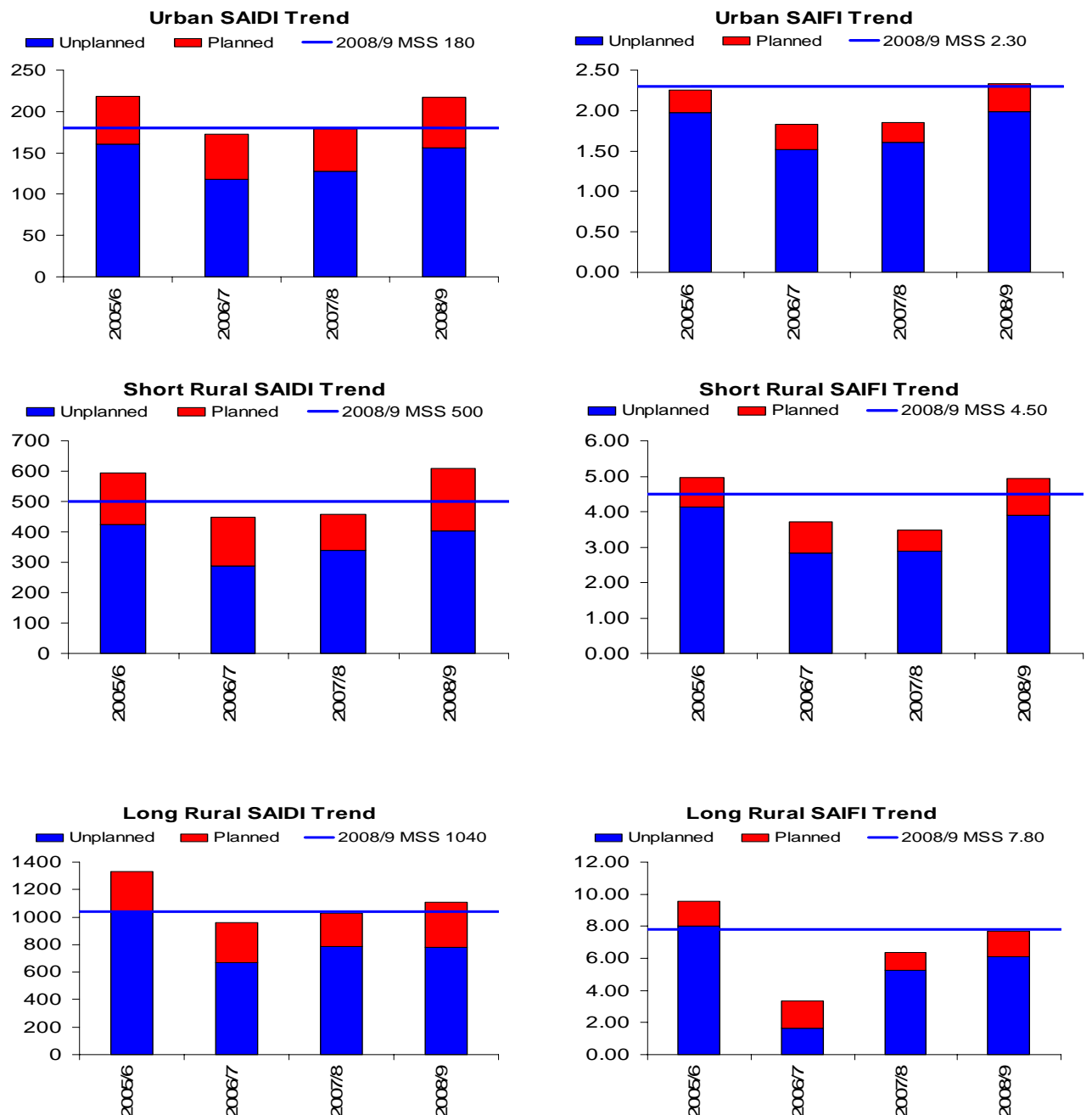


Figure 6: SAIDI/SAIFI Unplanned- Planned Break Up

2.3 Steps taken by Ergon Energy to mitigate the potential and actual impact of each factor

2.3.1 Live Line Bans

Following the initial suspension of live line works on 19 February 2009, Ergon Energy's senior management team considered the matter further to determine what the response to the safety issues experienced in the live line area would be. The company's senior management examined three main options:

- immediate reinstatement of live line works;
- delayed reinstatement of live line works;
- rebuilding the system for live line works.

The company considered these options in terms of the actions that would be necessary to properly and effectively discharge its obligations to its customers, contractors and employees by undertaking live line works in a manner that was efficient, safe and code compliant. In considering these matters, Ergon Energy also had regard to a review of the Australian Standard for live line works, and that changes in the standard would lead to increases in the minimum approach distances used by Ergon Energy prior to the suspension being implemented.

Immediate reinstatement of live line works

This option involved reinstating the live line function with the current safe system of work, while simultaneously continuing to implement the detailed action plans already in place to address each of the known issues that had been identified to date. This option was not considered appropriate as it did not allow for the impending changes in industry standards to be considered and did not effectively reduce the risk of further incidents occurring whilst management actions were underway to improve the system.

A sub-option considered was the use of Energex live line resources. This sub-option was not considered practical due to the reasons stated above, lack of authorisation and the broader application of the suspension to contract service providers.

Delayed reinstatement of live line works

This option involved delaying the reinstatement of the live line safe system of work until critical or high priority items from previous incidents had been addressed, and then undertaking work in parallel on remaining items. This option was not considered appropriate as it did not allow for the impending changes in industry standards to be considered. There was also no guarantee that this approach would effectively reduce the risk of further incidents occurring whilst management actions were underway to improve the system.

A sub-option considered was the use of Energex live line resources. This sub-option was not considered practical due to the reasons stated above, lack of authorisation and the broader application of the suspension to contract service providers.

Rebuilding the system for live line works

Given the apparent trend nature of the data, lack of a clear cause for the Stanthorpe incident at the time, impending changes in industry standards and nature of the previous eight incidents (which had been growing in severity), Ergon Energy management considered whether the safe system of works for live line warranted rebuilding from its foundation blocks via the establishment of a dedicated project team and detailed scope of works, based partly on the learnings from the previous incidents. The cost of this option was estimated to be approximately \$1 million. It was anticipated that the live line function could be progressively restored on this basis in the latter half of 2009.

This was the option selected. While other options may have had a lesser impact on Ergon Energy's network performance, they would not satisfactorily address the concerns that led to the ban on live line works and ensure the safety of customers, contractors and staff.

In order to reduce the impact on the network performance Ergon Energy has acted expeditiously to ensure the reinstatement of live line work. A project team was established in April 2009 to oversee the reinstatement of the function, and approximately \$1 Million in funding, was allocated to the project. It is anticipated that all training will be complete by the end of December 2009 with the majority of crews completing the training by the end of November. Live line work is progressively being reinstated as the live line crews complete the training.

The suspension of live line work was only applied to Ergon Energy assets. Live line capability remained in place to service Powerlink's Transmission Network as this function operates under a different safe system of works, uses different work practices and techniques and at the time, had no (and continues to have no) identified performance issues.

The reinstatement process included: refresher training, a restructure of the leadership and management functions; various personnel changes in the live line area; a review of practices in other distribution businesses (including Energex) and the adoption of new industry standards, across Energex and Ergon Energy. The group providing oversight of live line in Ergon Energy has been restructured to better define accountabilities and better manage process.

A new live line manual was developed, business process documents and procedures were reviewed and updated as necessary, the suitability of all live line equipment was assessed in line with the new procedures and the authorisation processes to enable live line work to be carried out were reviewed. Existing training records for staff were updated and reviewed, assessment and audit checklists were revised and reviewed and the process for engaging external training providers was also reviewed.

Considerable consultation occurred with industry, workforce groups and the Electrical Trades Union to ensure a robust solution was developed. A detailed implementation and deployment plan was established to enable the new process documentation, manuals and training material to be piloted and released across the workforce as quickly and effectively as possible, including leveraging resources and facilities from other industry partners, such as Energex.

In addition to improving the live line performance of Ergon Energy and reinstating live line operations, when feasible, Ergon Energy scheduled the planned outages at times when it would be of least inconvenience to customers, including conducting these works in the early hours of the morning.

2.3.2 Operating restriction on ABS

A safe system of work was implemented in 2008 in areas within 50 kilometres of the coastline or where corrosion from salt laden moisture was a known problem. Following work bans instituted by the Electrical Trades Union a revised safe system of work was implemented in October 2009.

A full audit inspection of Ergon Energy's entire ABS population was also initiated to identify defective ABS's as well as those identified as posing a potential hazard (particular manufacturer and models). Hazardous Condition Warning Tags are being fitted to all defective and identified ABS. The target date for completion of this full audit inspection is 31 December 2009.

In addition to this current approach, Ergon Energy is planning to replace up to 600 ABS in 2009-10 and 600 per annum through the next regulatory period from 2010-11 until 2014-15. It is planned to replace all the specific manufacturer and models identified as posing a risk across the entire network, with priority given initially to those with cracked insulators and those within 50km of the coast.

Ergon Energy has a well established inspection and maintenance program for its network assets including ABS. If a defective ABS is found as a result of the inspection, it is removed, replaced or repaired in situ by the inspection and maintenance crew. Additionally, any defect identified during normal works on, and operation of, the network are reported and acted upon.

2.3.3 More Severe Storm Season

Ergon Energy's Summer Preparedness Plan is in place with a well established inspection and maintenance program for its network assets and along with targeted capital programs these are aimed at improving the resilience of the network to storm and other events.

It is important to note that Ergon Energy has not benefited as a result of its failure to achieve the MSS.

No work has been deferred as a result of the three factors that have significantly influenced the MSS performance. Although extremely difficult to quantify, there would have been an increase in costs associated with the emergency response to the storms and flooding, the ban on Live Line work and the safe operating procedures that were put in place for the ABS's. Ergon Energy's Regulatory Financial Statements show both a capital and an operating expenditure for the 2008/09 year in excess of the regulatory allowances.

2.4 Strategies adopted to ensure that such factors did not impact its performance in previous and current financial years

2.4.1 Live Line Ban

Prior to the suspension of high voltage live work on Ergon Energy assets in February 2009 there were a number of processes and systems in place to ensure a safe system of work for high voltage live work.

These included:

- Documented processes for high voltage live work which included the Manual for High Voltage Line Work which details the safety rules & concepts as well as detailed procedures for each of the tasks that could be completed utilising high voltage live work techniques.
- Detailed training regime with training being delivered by Ergon Energy trainers under the auspices of an external RTO.
- Live Line Operational forum which consisted of the Live Line Manager, Live Line Competency & Development Officers, Live Line Trainers and field practitioners. This forum reviewed and endorsed any changes to the Manual for High Voltage Live Work procedures or changes to training.
- Live line Forum which consisted of representatives from Ergon, Energex, ETU including practising practitioners from both corporations. This forum reviewed and endorsed any changes to the Manual for High Voltage Live Work procedures or changes to training.
- Approval of changes to the Manual for High Voltage Live Work procedures or changes to training was signed off by the Live Line Manager and a Registered Professional Engineer Queensland.
- An auditing regime that included competency assessments completed by the internal Live Line Competency & Development Officers and audits by external auditors. Each authorised live line person would have a competency assessment and audit conducted each year, preferably approximately 6 months apart.

2.4.2 Operating Restrictions on ABS

Ergon Energy has in place a cyclic inspection and conditioned based maintenance program. The actual failure mode experienced is mechanical in nature and is difficult to detect. As the failures of the units supplied by the manufacturer are systemic the intervention now targets make, model and batch.

2.4.3 More Severe Storm Season

Ergon Energy has for many years utilised a Summer Preparedness Plan. Together with its well established inspection and maintenance program for its network assets and targeted capital programs, this is aimed at improving the resilience of the network to storm and other weather events.

2.4.4 Future Strategies - 2009/10 and Beyond

Ergon Energy is always looking for opportunities to improve the reliability performance of its network, and in order to meet the Minimum Service Standards for 2009-10, the following strategies are also being implemented.

Planned Outages

The following actions have or are being implemented to improve the reliability performance of the network now and into the future and to bring it back into MSS compliance:

- Prioritise the resurrection of live line work in the supply regions with a large number of critical planned works for 2009-10, with further prioritisation for the radial network segments.
- Defer all the non-critical planned works until such time that the live line work practice is fully operational.
- Maximise the utilisation of mobile generators currently owned by Ergon Energy.
- Continue to reduce sectional multiple planned shutdowns by maximising defect repairs and maintenance works within the section or radial component of a line and resourcing up to complete all works.
- Increasing monitoring and analysis of planned outages and options.

Unplanned Outages

Ergon Energy plans to materialise any practical opportunity to improve the unplanned performance before the storm season, i.e. by the end of November 2009, this includes:

- The identification of any beneficial network performance augmentation projects and a focus on completing them before the 2009-10 storm season as part of the Summer Preparedness Program.
- Undertake a pre-storm season aerial inspection of the significant sub-transmission network segments mostly in the radial part of the network to identify any potential defects and target these for remediation prior to the storm season.
- Consideration of the summer preparation of outage response based upon likely weather patterns.

Ergon Energy is also currently considering other opportunities in the network remote control area (SCADA) to specifically assist in addressing outage duration.

Ergon Energy also had and has in place clear Key Performance Indicators for SAIDI and SAIFI at group, regional and district level. These also form part of At Risk Performance Agreements with senior managers. Various monitoring and control measures (i.e planned shutdown approval process) are in place to enable staff to effectively outwork their responsibilities and control performance. The compounding nature of the three contributing factors meant that performance targets were not achieved. As such at risk components were not paid for this element where the targets were exceeded. It is a credit to those involved in the decision that they sacrificed potential personal reward for the higher priority of safety and this is a value that senior management and the company will continue to promote.

2.4.5 Additional information regarding Customer Feedback on Supply Performance

To understand the impact of issues such as this from our customers' perspective, Ergon Energy conducts regular market research to assist it in understanding and responding to changing customer priorities. The feedback and survey results from this market research have been examined to ascertain whether our customers have been concerned by the increased level of planned and unplanned outages in 2008/09. The feedback received from our customers indicates that our MSS performance has not had an adverse impact on how customers viewed our overall performance in relation to these supply reliability indicators. Indeed, our latest research confirms that Ergon Energy currently performs on par with other suppliers combined across all electricity supply components.

Ergon Energy's Value to Customer (V2C) survey metrics key feature is its ability to determine what's important to customers, identify how strongly those elements impact on the overall value delivered to customers, and then provide a legitimate benchmark against like business operations. Metrics include: Unplanned Outages, Planned Outages and Quality of Supply. The following Figure 7 shows Ergon Energy's current performance (as at September 2009) compared to other benchmark suppliers including AGL/Energex in SEQ, Origin/Energex in SEQ, Country Energy in NSW, and Origin/Powercor in Victoria.

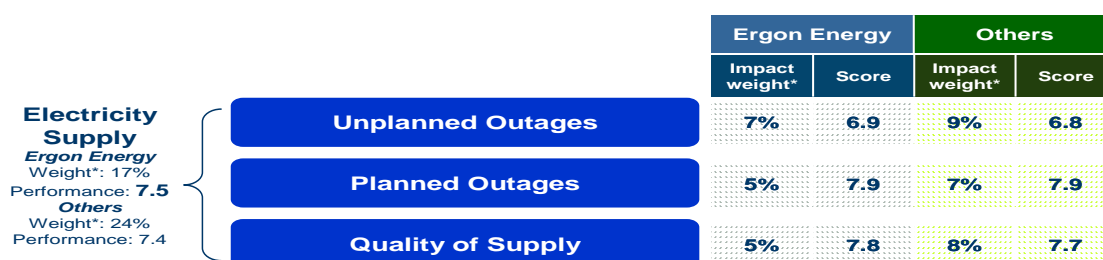


Figure 7: Electricity Supply Performance September 2009 – Ergon Energy vs. Other Suppliers

In terms of what customers see as the driver of the value they receive from their electricity utility, the results for both Ergon Energy and the other distributors surveyed shows that:

- Customers placed significantly less importance on planned outages compared to unplanned outages.
- At the end of the live line suspension, outages were less of a value driver for Ergon Energy customers than for the other utilities sampled (i.e. compared to other value drivers such as service and affordability).
- Ergon Energy currently performs on par with other suppliers combined across all electricity supply components.

These results for customer value drivers relating to outage performance are not unique to the September 2009 sampling. Over the ten years that Ergon Energy has been monitoring customer value drivers, our customers have consistently placed significantly less importance on planned outage performance than they have on unplanned outage performance.