

## **Further Information Regarding 2007-08 Short Rural SAIFI - ENERGEX Electricity Industry Code Quarterly Reporting**

Clause 2.4.2 of the Queensland Electricity Industry Code states that “a distribution entity must use its best endeavours to ensure that it does not exceed in a financial year the SAIDI and SAIFI Limits applicable to its feeder types.” As outlined in the June 2008 Quarterly Electricity Industry Code Report, ENERGEX exceeded its annual SAIFI limit for its short rural feeder type for the 2007/08 financial year. The reported SAIFI for the distribution system for the financial year (excluding Major Event Days and other interruptions excluded as per the Electricity Industry Code) was 2.706, against a Minimum Service Standard of 2.63.

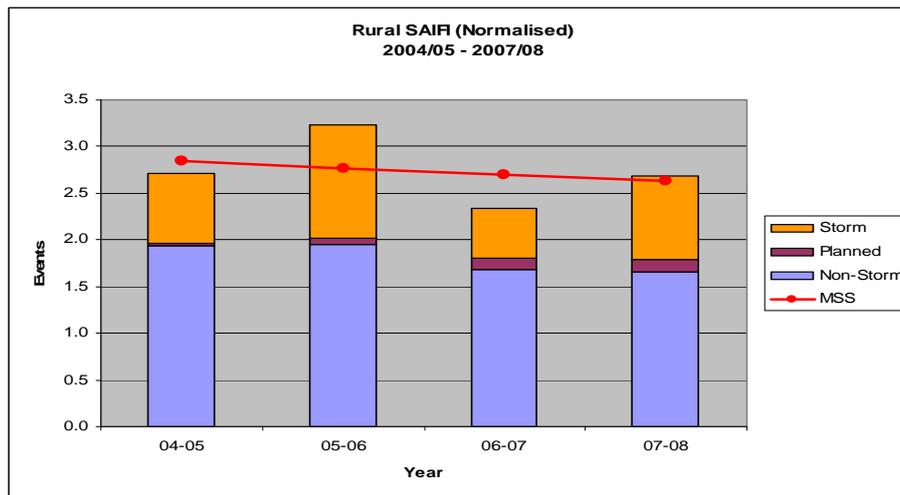
The explanation provided by ENERGEX in its Quarterly Report stated the following:

*“The rural reliability figures for 2007/08 were affected by a greater number of severe weather events. In particular, a low depression system in August 2007 caused network outages and also caused localised flooding, which extended restoration times. Severe storms and lightning damage over consecutive days in October 2007 resulted in a higher number of rural customers losing supply. And finally, strong winds in May 2008 caused a high number of vegetation-related events in the rural network.”*

Outages on ENERGEX’s rural network are generally the result of vegetation, wildlife, hardware / conductor failures and lightning. Unplanned SAIDI and SAIFI can vary from year to year due to seasonal changes in weather patterns and the occurrence of normal random events in the network. Although the 2.5 Beta exclusion method adopted in the Queensland Electricity Industry Code does remove some of the variation, it tends to be less sensitive to events affecting the rural network due to their lower contribution to system SAIDI.

In 2007/08, there were a total of 29 weather events where more than 5,000 customers were without supply. The majority of these storms impacted on rural areas, and none of the events qualified as an exclusion event under the Electricity Industry Code 2.5 Beta method. In comparison, ENERGEX experienced a total of 11 storm events in the 2006/07 financial year, with one of these storms excluded under the 2.5 Beta method.

ENERGEX’s Rural SAIFI for the last four financial years is provided in the graph below, broken up according to contribution from non-storm causes, storm-related causes and planned events. 2.5 Beta events have been excluded from this data.



**Figure 1 – Rural SAIFI History**

As can be seen from the above graph, there is significant variation in rural SAIFI due to storm events each year. For example, rural storm-related SAIFI decreased from 1.224 in 2005/06 to 0.535 in 2006/07, predominantly due to the much milder storm season experienced in 2006/07. The increase in “Planned rural SAIFI” is predominantly due to more accurate reporting of planned events since 2005/06, as well as the increased amount of planned work as a result of ENERGEX’s increasing CAPEX and OPEX programs of work. Importantly, the graph also shows an overall improving trend in “Non-Storm” rural SAIFI since 2004/05.

## PROPOSALS TO IMPROVE RURAL PERFORMANCE

To allow for the variation in unplanned SAIDI and SAIFI due to seasonal changes in weather patterns and the occurrence of normal random events on the network, ENERGEX targets performance levels below the MSS limits to reduce the risk of non-compliance. ENERGEX must also allow sufficient margin for increases in planned SAIDI / SAIFI due to the increases in the POW capital and operating programs.

ENERGEX aims to limit the risk to 10% probability of exceeding (10PoE), or one in ten years that the Code will be breached. ENERGEX aims to achieve this by assessing the reliability improvement delivered through the base CAPEX and OPEX programs and, through gap analysis between actual performance and targeted performance, develops additional reliability programs to close the gap.

Although ENERGEX continues to strive to improve rural reliability, there is still a significant risk of exceeding the rural Minimum Service Standards in 2008/09 and going forward due to the variability of the weather.

In recent years, ENERGEX has undertaken a number of strategies to reduce the risk of exceeding MSS on the rural network, encompassing both operational and capital works. The most significant of these strategies was the rural reliability response (RRR) program, which commenced in July 2006. The first stage of this program included the following works:

- Installation of more than 130 reclosers on the rural 11 kV network
- Provision of digital remote control to 20 recloser sites
- Installation of 100 additional line fault indicators on the rural 11 kV network

- Reprioritisation of maintenance programs (vegetation management, reliability assessments and planned reliability maintenance)
- Improvements in emergency response processes for rural areas
- Increased utilisation of generators for both planned outages and emergency response following storms

In conjunction with the RRR program, ENERGEX's ongoing primary condition assessment and maintenance activities to reduce the outage rate on ENERGEX's rural 11 kV network consist of:

- Below ground pole inspections (requiring digging of pole foundations and above ground visual condition assessment of cross arms, pole hardware and conductors (on a five year cycle)
- Annual pre-storm season helicopter patrols
- Vegetation management (on a 30 month cycle)
- Wildlife proofing of targeted constructions

ENERGEX's strategies and plans to meet the MSS rural targets through to the end of the next regulatory period in 2014/15 also encompass both operational and capital works. The significant operational measures involve improvements to emergency response and vegetation management. The capital works continue under the RRR program and include new rural substations, insulated conductor, remote control switches and general overhead network refurbishment programs.

In addition to these plans, ENERGEX has commenced a review of the current vegetation strategy to determine if there are any further benefits in reducing the time on the rural vegetation cycle for trimming and / or increased expenditure in consideration of the risk profile associated with the tree removal / cutting program. Further work is also underway to investigate the introduction of a spur fusing strategy with the aim of minimising the impact of faults on spurs from the rest of the feeder backbone.

ENERGEX believes that the successful implementation of these strategies will demonstrate best endeavours to minimise the risk of not meeting its service obligations for the rural network in future years.