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Mr Andrew Reeves  
Utilities Commissioner  
Utilities Commission  
GPO Box 915  
Darwin NT 0801

Dear Andrew

**Re: Review of Electricity Standards of Service for the Northern Territory –  
Power and Water's Response to Issues Paper**

Thank you for the opportunity to comment on the Utilities Commission's Issues Paper for the Review of Electricity Standards of Service for the Northern Territory.

Power and Water's response to the Issues Paper is at Attachment A.

Power and Water supports the development of a service standard framework in the Territory's electricity supply industry that both:

- recognises Power and Water's current service level to its customers; and
- sets appropriate and achievable service targets for Power and Water to further improve its performance over time, in line with customer expectations.

Power and Water has responded to each of the questions raised by the Commission in the Issues Paper in detail in section 3, and has also summarised its proposals regarding the standards of service arrangements in Appendix A.

Please contact Ms Djuna Pollard, Manager Regulation, Pricing and Economic Analysis, on (08) 8985 8431 should you have any questions or require further information.

Yours sincerely



Andrew Macrides  
**Managing Director**

30 June 2010



**REVIEW OF ELECTRICITY STANDARDS OF SERVICE FOR THE  
NORTHERN TERRITORY**

**SUBMISSION BY POWER AND WATER IN RESPONSE  
TO ISSUES PAPER BY THE NT UTILITIES  
COMMISSION**

**JUNE 2010**

*This report contains 21 pages*

## Contents

1	Executive Summary	2
2	Introduction	4
3	Power and Water's Responses to Questions Raised in the Issues Paper	6
	Appendix 1 – Summary of Power and Water's Proposals	18
	Appendix 2 – Network reliability performance	20



# **1 Executive Summary**

- 1.1 Power and Water supports the development of a service standard framework in the Territory's electricity supply industry that both:
- recognises Power and Water's current service level to its customers; and
  - sets appropriate and achievable service targets for Power and Water to further improve its performance over time, in line with customer expectations.
- 1.2 Power and Water considers that the development of the standards of service should be based on the following principles:
- Cost of obtaining reliable information – the framework should ensure that the cost of obtaining reliable data must be justified by the benefits to be gained.
  - Reflect performance areas influenced by the service provider – the framework should only relate to measures that the service provider can influence. A service provider should not be judged, or penalised, for standards of service problems outside its control.
  - Operational and environmental circumstances - the framework should account for the operating and environmental circumstances of the service provider.
  - Consistent incentives - the framework should ensure that the incentives for the regulated business regarding service standards are consistent with incentives in other aspects of the regulatory regime and do not weaken or conflict with more general protection provided at law.
  - Customer preference - the framework should reflect service outcomes that are important to customers and be set at levels that reflect customers' reasonable minimum expectations of service delivery and the capacity of service providers to meet these.
- 1.3 Within its framework for success, Power and Water is committed to continuous improvement and uses its best endeavours to deliver the best possible outcomes to customers. Power and Water has started to adopt practices, procedures and standards similar to those applying in the National Electricity Market (NEM), but adapted to the Territory's environment, market and size.
- 1.4 Power and Water seeks confirmation from the Utilities Commission (the Commission) as to whether the setting of actual service targets will be part of this Review process, and whether the same process be followed as for setting the initial standards in 2006. Power and Water assumes the following implementation process at the conclusion of this Review, and seeks the Commission's confirmation of this in its Draft Report:
1. Revise Standards of Service Code, including setting new indicators.
  2. Revise Standards of Service Procedural Guidelines as required.
  3. Standards of Service Code and Procedural Guidelines take effect.
  4. Power and Water submits draft service targets to the Commission in line with the requirements of the Standards of Service Code and Procedural Guidelines.
  5. Service targets approved by Commission.



6. Power and Water commence reporting on new indicators against the approved service targets for 2011-12.

- 1.5 Table 1 in Appendix A summarises Power and Water's proposals regarding the standards of service arrangements.

## **2 Introduction**

- 2.1 This document is Power and Water's submission in response to the Commission's Issues Paper for the Review of Electricity Standards of Service for the Northern Territory.
- 2.2 Power and Water notes that the Commission's objective in conducting this review is to provide options to ensure that electricity generation, network and retail service standards are appropriate in the Territory. As part of this, the Commission is to advise on the indicators and reasonable benchmarks for minimum service standards and develop options for setting, monitoring and enforcing minimum service standards.
- 2.3 A public reporting scheme has been operating in the Northern Territory since the introduction of the Electricity Standards of Service Code in December 2005, however there is no legislative provisions at this stage for a Guaranteed Service Level scheme as part of a customer service incentive scheme. Power and Water notes that options for the implementation of a customer service incentive scheme for electricity customers are the subject of a separate review by the Commission that commenced in March 2010.
- 2.4 The Electricity Standards of Service Code established a service standards monitoring scheme which requires Power and Water to report annually against 46 indicators of electricity generation, networks and customer service performance, and sets a defined standard of service for 45 indicators<sup>1</sup>. The initial standards were to apply until June 2009. However, in June 2009 the Commission approved an extension of the initial standards until June 2011, with the intention of reviewing the standards before then.
- 2.5 Power and Water has reported on reliability, quality and customer service performance for electricity generation, networks and customer service in market systems to the Commission annually since 2005-06. The Commission has then used this data to prepare an analysis of performance, which has been released along with Power and Water's standards of service performance report.
- 2.6 Power and Water reports against the following performance indicators of reliability, quality and customer service:
- the average minutes of off-supply per customer for networks and generation (known as system average interruption duration index – SAIDI);
  - the average number of interruptions per customers for networks and generation (known as the system average interruption frequency index – SAIFI);
  - the average interruption duration per customer for networks and generation (known as customer average interruption duration index – CAIDI);
  - the number of feeders that experience more than 15 (for interconnected networks and 27 (for radial networks) interruptions a year;
  - the percentage of customers supplied by feeders that experience more than 15 (for interconnected networks) and 27 (for radial networks) interruptions a year;
  - the number of feeders that experience more than 1,500 (for interconnected networks) and 2,500 (from radial networks) minutes of interruptions a year;

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<sup>1</sup> No performance thresholds were set for the number of complaints received in relation to voltage events such as voltage dips, swells, spikes etc.

- the number of complaints received in relation to voltage events eg. voltage dips, swells, spikes;
- the percentage of new connections provided within 24 hours to an existing property, within 5 working days to a property in a new urban subdivision, and within 10 weeks where minor extension or augmentation is required;
- the number and percentage of telephone calls responded to within 20 seconds of the customer selecting to speak to a person; and
- the number of customer complaints.



### **3 Power and Water's Responses to Questions Raised in the Issues Paper**

- 3.1 This section provides Power and Water's response to each of the questions raised by the Commission in the Issues Paper.

***Question 1** Do you agree that reliability and customer service performance should be determined based on a 'best endeavours' approach? If not, what other alternative approaches are appropriate?*

- 3.2 Power and Water agrees with the use of a 'best endeavours' approach to determine reliability and customer service performance. This approach is defined by the Essential Services Commission of South Australia (ESCOSA) as "to act in good faith and use all reasonable efforts, skills and resources".<sup>2</sup>
- 3.3 Power and Water understands that by this the Commission is proposing that the indicators for reliability and customer service performance will be based on average rather than absolute targets, and that Power and Water would be expected to use all reasonable efforts, skills and resources to achieve a consistent average level of service performance over time.
- 3.4 Power and Water agrees that an alternative approach based on absolute targets would likely result in a significant financial impact, which would eventually be borne by customers.

***Question 2** Do you think that market conditions for electricity supply in the Territory warrant the definition of standards of service for electricity generation, electricity networks and electricity retail participants?*

- 3.5 Power and Water supports a service standard framework for electricity generation, electricity networks and electricity retail participants. A service standard framework is warranted regardless of market conditions. It allows businesses to effectively cost the provision of specific standards and provides customers with realistic expectations for the standards that can be provided and the consequent cost/price increases.
- 3.6 Service standard reporting provides both transparency and accountability. For this reason, Power and Water supports reporting on key performance measures to the public and the Commission.
- 3.7 In terms of defining standards and reporting on electricity generation performance, Power and Water considers that the technical parameters and requirements for Generators contained in the current System Control Technical Code (approved by the Commission) and the Secure System Guidelines (made under the System Control Technical Code) are in effect the generation performance standards. This is elaborated on further in the response to question 3.

***Question 3** Do you consider reliability standards such as SAIDI, SAIFI and CAIDI effective measures of generation reliability in the Territory?*

- 3.8 Power and Water does not consider SAIDI, SAIFI and CAIDI to be effective measures of generation reliability.

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<sup>2</sup> Essential Services Commission of South Australia, 1 January 2003 (last varied in December 2009), Electricity Distribution Code (EDC/07), page A-40.



- 3.9 SAIDI, SAIFI and CAIDI measures are acknowledged nationally as an appropriate means of reporting outages within network systems or for monitoring whole of system performance. These measures can be effective in monitoring network performance and network improvement related to maintenance programs.
- 3.10 However, generation by its nature is generally concentrated at specific points within a network system. Technical coordination and management of generation is dynamic and requires significantly different planning processes to network system management. Potential market operation, dynamic machine loading, operational stability and inertia, for example, all must be actively controlled or considered to achieve reliable and secure generation performance.
- 3.11 Further, it will be difficult to attribute SAIDI and SAIFI to specific generators if there was more than one generator in the market, as generation performance will be directly impacted by system-wide parameters such as spinning reserve interacting with individual generator responses.

*Do you consider the equivalent forced outage factor and the equivalent availability factor indicators would be more useful indicators of generation reliability?*

- 3.12 Power and Water considers that the technical parameters and requirements for generators contained in the current Secure System Guidelines (made under the System Control Technical Code approved by the Commission) are in effect the generation reliability standards. System Control closely monitors compliance by system participants with the Guidelines and the Technical Code, and reports on any major power system incidents to the Commission.
- 3.13 Power and Water understands that the Commission is looking to broaden the scope of its annual Power System Review (PSR), with a view to developing the PSR into a report similar to the *Statement of Opportunities* in the NEM. Further, the Commission will also be conducting a Review of Electricity System Planning, Monitoring and Reporting (commencing in October 2010) and a Review of Electricity System Planning and Market Operation Roles and Structures (commencing in December 2010). As part of these reviews, the Commission has stated that it will be:
- assessing the feasibility of aligning security and reliability of supply standards used in the Territory with NEM equivalents to assist with cross jurisdictional comparisons; and
  - reviewing the appropriate reserve capacity that should be maintained for each power system.<sup>3</sup>
- 3.14 Power and Water considers that these reviews will inform the reliability indicators to be used for generators, and cautions against establishing service targets for generators until the Commission has completed its reviews. Increased investment in generation plant will be required if the Commission was to impose any further or stricter reliability standards on generation.
- 3.15 Power and Water proposes that the current generation compliance monitoring of the technical performance parameters in the Secure System Guidelines and the System Control Technical Code undertaken by both the System Controller and the Commission should be an adequate indicator of generation reliability until further analysis can be undertaken as part of these reviews.

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<sup>3</sup> Utilities Commission, March 2010, 2008-09 Power System Review, page 29.



- 3.16 The Secure System Guidelines require the power system to maintain a minimum spinning reserve. Spinning reserve provides a means for the power system to meet expected customer demand and to ensure that the power system can respond to some disruption resulting from an unexpected disconnection of generating units or components of transmission equipment.
- 3.17 The System Controller calculates the required minimum level of spinning reserve for each region in the Territory based on a minimum level of 0.002% unserved energy (USE). USE is the expected amount of energy at risk of not being delivered to customers due to a lack of available capacity. This is the same standard that the Australian Energy Market Operator (AEMO) applies to Generators in the NEM. As such the minimum spinning reserve level is a (lag type) performance indicator and driver of generation reliability performance.
- 3.18 The Secure System Guidelines also require that generators must have sufficient standby plant available to ensure that, with the loss of the highest loaded online unit, there is sufficient standby reserve available to compensate and recover this complete load loss.
- 3.19 Power and Water reports on the equivalent forced outage factor (EFOF) and the equivalent availability factor (EAF) indicators to the Energy Supply Association of Australia (ESAA) as part of its comparative report on the electricity and gas markets in Australia. EFOF and EAF may provide long term (years) indications about power station performance and support planning decisions necessary for new generation investment. Power and Water is supportive of the reporting of these indicators; however Power and Water does not support setting targets for these indicators for the reasons outlined above.

*Question 4 Do you consider that there should be reliability indicators for the transmission elements of the Territory electricity system?*

- 3.20 Power and Water considers that setting reliability indicators for the transmission elements of the system would be of limited value. Transmission is a very small component of the electricity system in the Territory. To enable comparison of results with other jurisdictions, only three lines are considered to be transmission under the NEM definition. A sample size of three would not provide statistical significance or useful results.
- 3.21 Unlike the NEM where transmission and distribution are generally separate businesses, the transmission system is also maintained and operated by essentially the same staff.
- 3.22 Power and Water therefore considers that transmission and distribution reliability indicators should be combined.

*Question 5 Do you consider the following indicators of DNSP reliability should be reported in the Territory:*

- SAIDI;
  - SAIFI; and
  - feeder performance
- 3.23 Power and Water supports the use of SAIDI and SAIFI as network service standards. These reliability measures are used extensively in Australia and the electricity industry to report on network outages, and form the basis of Power and Water's current internal and external reporting processes. For example, SAIDI and SAIFI are used as reporting mechanisms in the Statement of Corporate Intent (SCI) agreed between Power and



Water and the Shareholding Minister, Power and Water's annual Standards of Service Report to the Commission, and also in comparative reporting to the ESAA.

- 3.24 Power and Water does not consider that feeder performance should be used as an indicator of network reliability performance. Individual feeder performance is not widely reported on in the electricity industry. As outlined in the Commission's Issues Paper<sup>4</sup>, only two jurisdictions (SA and Victoria) currently report on feeder performance.
- 3.25 Setting targets for individual feeders may result in uneconomic investment decisions in terms of performance for the overall customer base. For example, feeder performance targets may tend to disproportionately indicate poor performance of long rural feeders, requiring high levels of investment for little gain to the overall customer base.
- 3.26 Power and Water considers that the indicators for reliability and customer service performance should be based on average rather than absolute targets (refer to the response to question 1). Power and Water considers that a Guaranteed Service Level Scheme is the framework to set absolute (or minimum) targets for service performance.
- 3.27 The GSL scheme that is expected to be implemented as part of a Customer Service Incentive Scheme currently being developed by the Commission is a more appropriate approach to incentivise network service providers to improve performance. The Commission has stated that "GSL schemes focus on the worst-served customers, with payments made directly to those customers affected by a specific instance of poor service performance, such as a power outage."<sup>5</sup>
- 3.28 Instead of setting targets based on feeder performance, the Commission could set annual SAIDI and SAIFI targets by feeder type (CBD, urban, rural short and rural long) to identify worst-performing feeder types. This approach is consistent with current industry practice.
- 3.29 Power and Water does not currently report on SAIDI and SAIFI by feeder type, but has commenced working towards this for 2011-12.

*Do you consider there are other indicators of DNSP reliability that should be reported in the Territory?*

- 3.30 Power and Water considers that CAIDI should not be included as an indicator of network reliability performance. Power and Water considers that the CAIDI performance measurement remains a flawed indicator for outages, as the calculation is based on duration of outages over outage frequency. This can result in a situation where having a higher frequency of outages benefits the outcome of the performance indicator, which may not reflect improvement in either duration or frequency of outages. Power and Water agrees with the Commission's finding that CAIDI has not proved a useful indicator of reliability so far in the Territory.<sup>6</sup>
- 3.31 New processes would need to be introduced by Power and Water at a cost, if any additional network reliability measures were to be proposed.

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<sup>4</sup> Utilities Commission, May 2010, Review of Electricity Standards of Service for the Northern Territory Issues Paper, page 29.

<sup>5</sup> Utilities Commission, March 2010, Review of Options for the Implementation of a Customer Service Incentive Scheme for Electricity Customers Issues Paper, page 2.

<sup>6</sup> Utilities Commission, May 2010, Review of Electricity Standards of Service for the Northern Territory Issues Paper, page 29



*Question 6 Do you consider there is merit in requiring generators or the DNSP in the Territory to report against specific quality of supply indicators?*

*Are you aware of any difficulties associated with collecting and reporting specific quality of supply indicators?*

- 3.32 Power and Water does not object to reporting 'quality of supply' indicators (eg. voltage variations) for its networks.
- 3.33 Voltage variations are inconvenient for customers and Power and Water attends to problems as soon as it becomes aware of them, mostly following a complaint by a customer. Power and Water considers that receiving customer complaints in relation to voltage events is currently the only cost-effective indicator of quality of supply performance.
- 3.34 While Power and Water can measure voltage at individual customer premises, there is no cost-effective way of aggregating individual customer voltage data and reporting on it at a system-wide level. Also, Power and Water can not currently report complaints received, compared to complaints verified as a voltage problem, as a customers' perception of a voltage event may not technically be related to a voltage problem.
- 3.35 Power and Water does not consider that 'quality of supply' indicators are relevant for generators. The Secure System Guidelines contain requirements for voltage standards for generators and System Control actively monitors this. Additionally, System Control regularly reports on frequency control and time error as part of its quarterly reports to system participants and half-yearly reports to the Commission. Whilst all system parameters are important, frequency is considered the most significant indicator of the overall operational adequacy of a power system.

*Question 7 Do you consider there is merit in requiring PWC Networks and retailers operating in the Territory to report against nationally consistent customer service indicators?*

- 3.36 Power and Water considers that the indicators for Power Networks and retailers operating in the Territory should be nationally consistent, but the targets should be set with consideration of the operating and environmental circumstances in the Territory. This is further elaborated on in Power and Water's response to question 11.
- 3.37 The current customer service reporting arrangements do not distinguish between Power Networks' and Retail's customer service. This is because one billing system and a single call centre are used across the whole business, so Power and Water is unable to separately report on certain service indicators such as telephone calls. Replacing these systems or introducing new systems would be expensive, and negate some of the efficiencies gained from the vertical integration of Power and Water. For this reason, Power and Water only supports harmonising the reporting of customer service indicators between Power Networks and Retail where current systems allow (for example, customer complaints can be segmented between business units and by region).
- 3.38 Table 1 in Appendix A summarises Power and Water's proposals regarding the standards of service arrangements, and specifically outlines the data segmentation currently possible for each proposed indicator.

*Do you consider there is merit in establishing customer service indicators relating to customer hardship?*

- 3.39 Power and Water provides essential services to the Territory and recognises that there are people who may at times have difficulties affording essential services such as



electricity and water. Power and Water has a Customer Hardship Policy, the objective of which is to assist domestic consumers in times of hardship and provide them with support to resume regular payment of services used.

3.40 Power and Water currently has a number of initiatives to help customers stay connected, including:

- Voucher system - Power and Water distribute vouchers of a predetermined value each financial year to Northern Territory advocacy agencies and financial counselling service providers to assist domestic consumers experiencing hardship. These nominated providers of emergency relief determine eligibility and distribute the vouchers on behalf of Power and Water.
- Credit management of hardship customers (Time to Pay Arrangements) – a customer can arrange to pay amounts that they can reasonably afford on an arrangement plan to demonstrate commitment to reduce the existing debt.
- As part of the Time to Pay Arrangements, Power and Water also offers domestic customers experiencing hardship the option to change from a time of use meter to a prepayment meter at no charge.

3.41 Power and Water would support any associated reviews across all retailers to establish indicators and benchmarks relating to customer hardship, as long as any targets that are set will apply equally to any future market entrants.

*Are you aware of any difficulties associated with collecting and reporting nationally consistent customer service indicators?*

3.42 Power and Water faces a number of data collection issues relating to the systems currently in place and its vertical integration. Segregating all measures between business units is difficult, potentially costly and resource intensive.

3.43 As explained above, the current customer service reporting arrangements do not distinguish between business units as one billing system and a single call centre are used across the whole business. This means that Power and Water can not currently report separately on certain service indicators such as telephone calls. Replacing these systems or introducing new systems would incur additional costs, and negate some of the efficiencies gained from the vertical integration of Power and Water.

*Question 8 Should the Commission determine generation, networks and retail standards of service for the Territory?*

3.44 Power and Water considers that the Commission should determine the standards of service indicators and methods for establishing service targets, but the setting of the actual service targets should be a consultative process, whereby Power and Water proposes service targets using the required method for each indicator, for approval by the Commission.

3.45 Power and Water has (or can source) the data necessary to assist the Commission in setting the standards, both in understanding and defining an accurate measure of existing service and in considering what is achievable, and at what cost, over time.

3.46 For example, it should be noted that there are practical limits as to what can be achieved in terms of the SAIDI indicator. SAIDI is significantly affected by the 15 minute re-close policy set by the Energy Networks Association (ENA) as a public safety standard.



*Question 9 Should the Commission define a relationship between minimum standards and average standards? For example, should minimum standards for individual feeder performance be linked to average network reliability performance?*

- 3.47 Power and Water does not support relating the minimum service level to the average service level, nor is this approach widely used in other jurisdictions. Minimum reliability levels should be set independently of average levels.
- 3.48 As previously stated in response to question 5, Power and Water considers that a Guaranteed Service Level Scheme is the framework to set absolute (or minimum) targets for service performance.
- 3.49 Power and Water considers that it is about striking a balance between allowing Power and Water to achieve commercial objectives and grow its business (making entry of competition more likely), while incentivising good performance in important areas of reliability and customer service.

*Question 10 Do you consider that using a multiple year rolling average of recent service performance is the most effective way of setting average service targets?*

- 3.50 Power and Water does not consider that using a multiple year rolling average of recent service performance is the most effective way of setting average service targets. SAIDI and SAIFI in the Territory historically have been highly variable, and setting targets based only on raw historic data may not be a practical approach.
- 3.51 Power and Water supports the use of historical data to set service targets, however the data should be normalised to consider seasonal events and outages caused by external factors such as extreme weather events and other events outside of the service provider's control. This process should also be used for service performance reporting.
- 3.52 Power and Water does not support setting service targets based on benchmark values. This is elaborated on in Power and Water's response to question 11.

*Question 11 Do you consider that using service targets and service performance in the Territory should take into account the service performance of service providers elsewhere in Australia?*

- 3.53 Power and Water considers that the service targets and service performance should take into account the service performance of service providers in other jurisdictions, but only to a limited extent (the use of benchmarking data should be directional rather than deterministic).
- 3.54 Service targets should be set primarily based on the operating and environmental circumstances of the Territory. Benchmark values are not directly applicable to Power and Water, as no other utility has closely comparable operating and environmental conditions including:
- Remoteness and considerable distances between urban service centres and remote communities (and the lack of all-weather access). Power and Water is the sole provider of electricity to almost 80,000 customers across the Territory, covering an area of more than 1.3 million square kilometres.
  - The majority of the rural distribution network is radial in nature, with most areas only able to be supplied from one source. There is little opportunity for interconnection with other circuits for security and continuation of supply. Some customers are located over 200 kilometres by line length from the nearest zone substation.



- The Territory is subject to a variety of climatic conditions, including periodic cyclonic conditions, severe storms and a high incidence of lightning in the north, and droughts and dust storms in Central Australia. Also, significantly higher levels of ultra-violet radiation, temperature and humidity have an adverse effect on the life of assets, maintenance and productivity in the Territory.
- Other environmental problems, such as termites, bat infestations, and high rates of vegetation growth.
- The Territory is not part of, or connected to, the NEM. The number and location of generation plant means that there is less reserve or redundant capacity than in the NEM.

3.55 Further, Power and Water agrees with the Commission that the lack of consistent standards of service for individual service providers, and different operating practices and reporting arrangements (including approaches to exclusions) in other jurisdictions, make the use of performance benchmarking difficult.

3.56 Power and Water disagrees with the Commission's use of Ergon as a benchmark for network reliability performance (in chapter 3 of the Issues Paper), for the following reasons:

- The Commission infers that due to Ergon's lower customer density compared to Power and Water, "the task facing Ergon is more difficult".<sup>7</sup> It is difficult to see how such an inference can be made without also comparing the operating and environmental circumstances of both service providers, including staffing levels, capital and operating expenditure levels, other environmental factors, nature of the network, supply areas and cost of service. Also, as noted by the Commission, customer densities vary significantly across the Territory.<sup>8</sup>
- The Commission compares Power and Water's network reliability performance in Darwin, Katherine, Alice Springs and Tennant Creek (ie. urban and rural networks) with Ergon's urban network performance in charts 3.1 to 3.4. This comparison does not give the full picture, as it is not comparing like with like and Ergon's historical urban network reliability is significantly better than its rural service performance.<sup>9</sup> Power and Water has undertaken analysis comparing its historical network reliability with Ergon's total network reliability (including rural networks) in Appendix 2.
- It is inappropriate to compare the generation outages reported by Ergon to Power and Water's generation reliability performance. Ergon is part of the NEM and therefore backup generation is available. It is not appropriate to compare generation capability in the NEM to Power and Water. Also, SAIDI and SAIFI measures in this instance are only used to monitor whole of system performance.

*Question 12 Do you consider that service targets and service performance in the Territory should be set to encourage improvement in service performance over time?*

*Do you think the Queensland approach could be applied in the Territory context?*

<sup>7</sup> Utilities Commission, May 2010, Review of Electricity Standards of Service for the Northern Territory Issues Paper, page 14.

<sup>8</sup> Utilities Commission, May 2010, Review of Electricity Standards of Service for the Northern Territory Issues Paper, page 47.

<sup>9</sup> Ergon Energy, Electricity Distribution Quarterly Service Quality Reports.



- 3.57 Service targets should be set based on reasonable minimum expectations of service delivery.
- 3.58 Within its framework for success, Power and Water is committed to continuous improvement, and supports factoring further improvements over time into the targets. However, the improvements should be achievable, and set with consideration to customers' willingness to pay for further improvements.
- 3.59 The cost of improving service standards beyond reasonable efficiency gains should be recognised. This cost would need to be funded by either:
- Increased tariffs (customer would end up paying for increased level of service); or
  - Increased CSO funding (or other transparent funding arrangements with the NT Government eg. acceptance of a lower rate of return).

*Question 13 Do you think that there is merit in assessing Territory customer preferences and willingness to pay for a certain level of electricity service performance to inform the development of standards of service?*

- 3.60 The development of standards of service should reflect service outcomes that are important to customers. Service targets should be set at levels that reflect customers' reasonable minimum expectations of service delivery and cost (ie. what value they are actually prepared to pay), and the capacity of service providers to meet these. However, Power and Water recognises that in practice this is difficult to measure.
- 3.61 Customer surveys have been used in some jurisdictions as a method of establishing customer preferences, however the use of customer surveys has the following limitations:
- Customer surveys are expensive, as they require professional drafting, analysis and interpretation. Power and Water is aware that consultancies costing in the hundreds of thousands of dollars are not unusual in determining consumer preferences, and this would appear to be excessive in the NT context. Additionally, it may be necessary to carry out the survey in every NT centre to establish whether there are regional variations;
  - Customer surveys are not always appropriate on equity grounds. A customer who does not value an increased standard of service should still be entitled to a minimum standard of service. Using customer surveys to set standards may be contrary to public policy initiatives; and
  - Customer surveys are often used to value improvements in service on a dollar basis, and in doing so generally ignore the fact that retail prices to domestic and small commercial customers are subsidised. Power and Water considers that customers are generally unaware of the full cost of their service and therefore may not be in a position to judge the additional amount they would pay for an additional minute on supply.
- 3.62 The use of the value of customer reliability (VCR) to determine the value that customers place on supply reliability is probably a more objective measure. Nonetheless, customer surveys are still required to determine this value.<sup>10</sup>
- 3.63 Further, it is difficult to translate customers' willingness to pay or customer reliability values into meaningful service targets.

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<sup>10</sup> CRA International, August 2008, Assessment of the Value of Customer Reliability (VCR), pages 1-2.



*Question 14 Should there be an explicit obligation for electricity service providers in the Territory to consult with customers on their preferences for standards of reliability and quality of supply, given the cost of supply and price implications?*

- 3.64 Power and Water currently monitors customer satisfaction through its monthly customer surveys. However, Power and Water does not consider customer surveys should be used to determine service targets, for the reasons outlined in the response to question 13.
- 3.65 While Power and Water recognises the cost of supply and price implications, there should not be an explicit obligation for electricity service providers in the Territory to consult with customers on their preferences for standards of reliability and quality of supply. This is not consistent with practices in other jurisdictions in Australia.

*Question 15 Do you consider the 2.5 beta method an appropriate method for identifying the underlying reliability performance of a service provider for the purposes of reporting service performance and setting service targets, or should the Commission consider specifying excluded events?*

- 3.66 Power and Water considers that the exclusion method should be the same for the purposes of reporting service performance and setting service targets.
- 3.67 Power and Water supports the use of the 2.5 beta method for identifying the underlying reliability performance of a service provider for the purposes of reporting service performance and setting service targets. The 2.5 beta method is an internationally accepted standard and an objective, statistical methodology. Power and Water proposes that this approach could be supplemented by a subjective list of excludable events. This would contribute to normalisation of the data (refer to the response to question 10) as events that are outside of the service providers control should be excluded.

*Question 16 Do you consider there is merit in requiring separate reporting of unplanned and planned outages for electricity networks and generation in the Territory?*

- 3.68 Power and Water supports the reporting of planned and unplanned outages for electricity networks. This data is readily available within Power and Water and it is included in regular reports to senior management for monitoring and asset management purposes.
- 3.69 Power and Water is supportive of the reporting of generation indicators; however Power and Water does not support setting targets for these indicators for the reasons outlined in the response to question 3. Generators are highly complex machines and individual planned outages can take as long as 18 months. Dependent upon time of day, season and overall system load, forced outages may have no impact upon customers or result in extended load shedding. Power and Water considers that the requirements for generators contained in the System Control Technical Code, approved by the Commission, are in effect the generation reliability standards.

*Question 17 Do you consider service performance data should be reported using nationally consistent categories?*

- 3.70 Power and Water considers that service performance data should be reported using nationally consistent categories, providing that the data segmentation is applicable and can be undertaken by Power and Water's current systems at minimal cost.
- 3.71 Table 1 in Appendix B of the Commission's Issues Paper includes a proposal for the network service provider to segment data by customer (household and business). It should be noted that network reliability is a feeder issue, not a customer issue and



therefore there is no customer class distinction to be made in relation to networks. The service standards relating to network services will therefore naturally include all customer classes.

- 3.72 Power and Water considers that network reliability reporting and targets should be segmented by feeder type (ie. CBD, urban, rural short, rural long) and by regions (ie. Darwin-Katherine, Tennant Creek and Alice Springs), as each region is affected by different environments. Darwin and Katherine should be considered as an integrated network (and not separately reported).
- 3.73 Table 1 in Appendix A of this paper outlines Power and Water's preferred approach to data segmentation in relation to service targets and reporting.

*Question 18 Do you know of any data quality problem that may mean currently available or future performance data is not suitable for setting service targets, or reporting service performance?*

- 3.74 Power and Water considers that its current data collection mechanisms for service performance are accurate to within an acceptable level of error for their current use, but this has not been verified by an independent engineering consultancy.
- 3.75 Power and Water is aware of the need to verify data accuracy and ensure that recording and measurement systems are consistent across the Corporation. As such, Power and Water would support an audit of Power and Water's performance data collection and reporting systems.
- 3.76 Data retrieval for some of the measures that Power and Water currently reports on is not automated (eg. customer connection timeframes), and this can lead to potential inaccuracies in the data. Power and Water is currently working on automating these processes as part of the new systems and processes being developed under the Asset Management Capability project.
- 3.77 Power and Water are also unable to report service performance at some of the segmented levels proposed by the Commission in the Issues Paper, due to current system limitations and Power and Water's single call centre and billing system. This should be taken into account and sufficient time and resources should be allowed to enable Power and Water to upgrade systems and processes to ensure the data is available if required by the Commission.
- 3.78 Lack of consistent or robust historical data could also be an issue, particularly for any new indicators or segmentation of data.

*Question 19 Should standards of service arrangements apply to all service providers operating in the Territory electricity market?*

- 3.79 Standards of service arrangements should apply to all licensees in the electricity market (including isolated systems), with the exception of Indigenous communities. This will provide an equal level of service and ensure that customers can expect the same level regardless of service provider.
- 3.80 Indigenous communities should be excluded from the framework as the provision of essential services to Indigenous communities throughout the Territory is covered by a fee for service agreement between Indigenous Essential Services (IES) Pty Ltd and the NT Department of Housing, Local Government and Regional Services (DHLGRS). The level of payment from DHLGRS establishes the service standards supplied to Indigenous communities. Power and Water considers that it is a matter for the NT Government to

decide if IES communities should be included in the service standard framework, and the service targets that should be set in the communities.

*Question 20 Should standards of service arrangements only apply in the regulated market systems?*

- 3.81 Standards of service arrangements should apply in both regulated and non regulated market systems (but excluding IES communities, as outlined in the response to question 19).
- 3.82 However, the service targets set should be lower in non-regulated areas than in regulated market systems to recognise different operating environments. For example, most remote communities do not have additional capacity built into the system and would require extensive capital investment to meet urban service standards. Power and Water recommends that different service targets be set for urban, rural and remote areas, where applicable.

*Question 21 Do you have views on the capability of performance reporting systems, and the willingness of customers to accept the costs of improving reporting systems? The Commission is particularly interested in the Power and Water Corporation's views on this matter, most notably in relation to systems capability.*

- 3.83 Power and Water's current systems do not have the ability or focus on the proposed level of reporting. Power and Water's vertical integration, the use of the one billing system across all business units and a single call centre means that Power and Water can not currently report separately on certain performance indicators, for example telephone calls answered within a certain timeframe by business unit. Replacing these systems or introducing new systems will incur additional costs and will negate some of the efficiencies gained from vertical integration. Customers' willingness to accept the costs of modifying current systems or introducing new systems is unclear at this stage.



## Appendix 1 – Summary of Power and Water’s Proposals

Table 1: Summary of Power and Water proposals for standards of service arrangements

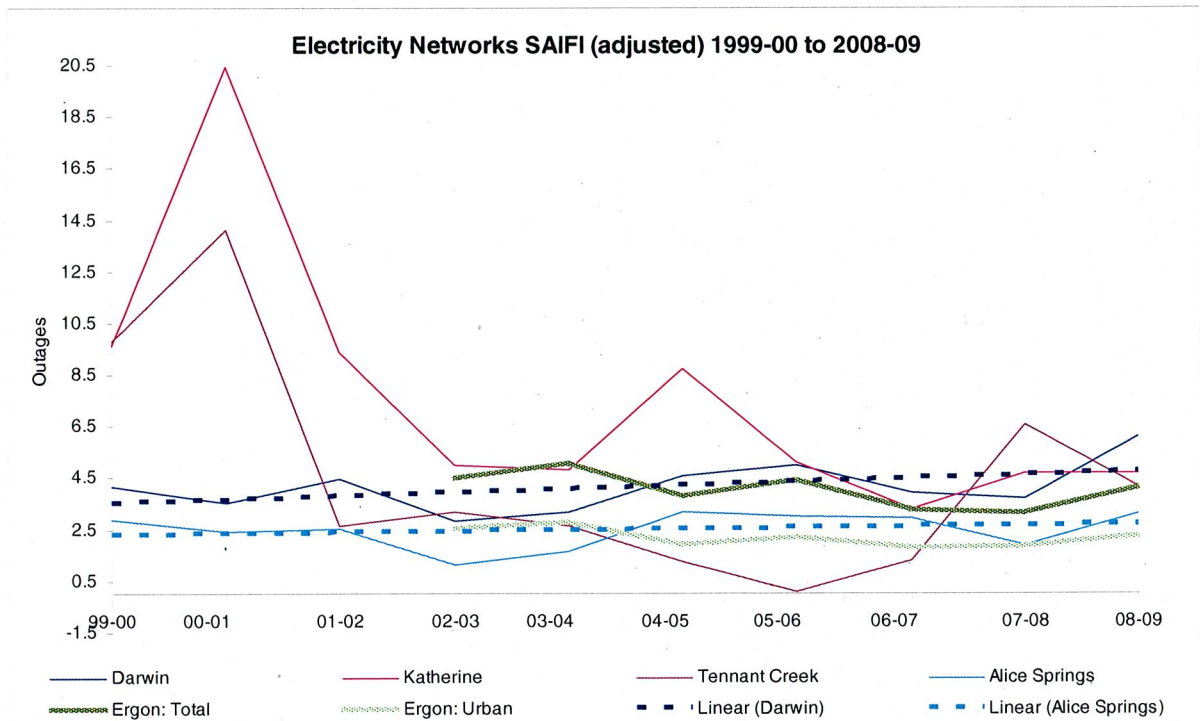
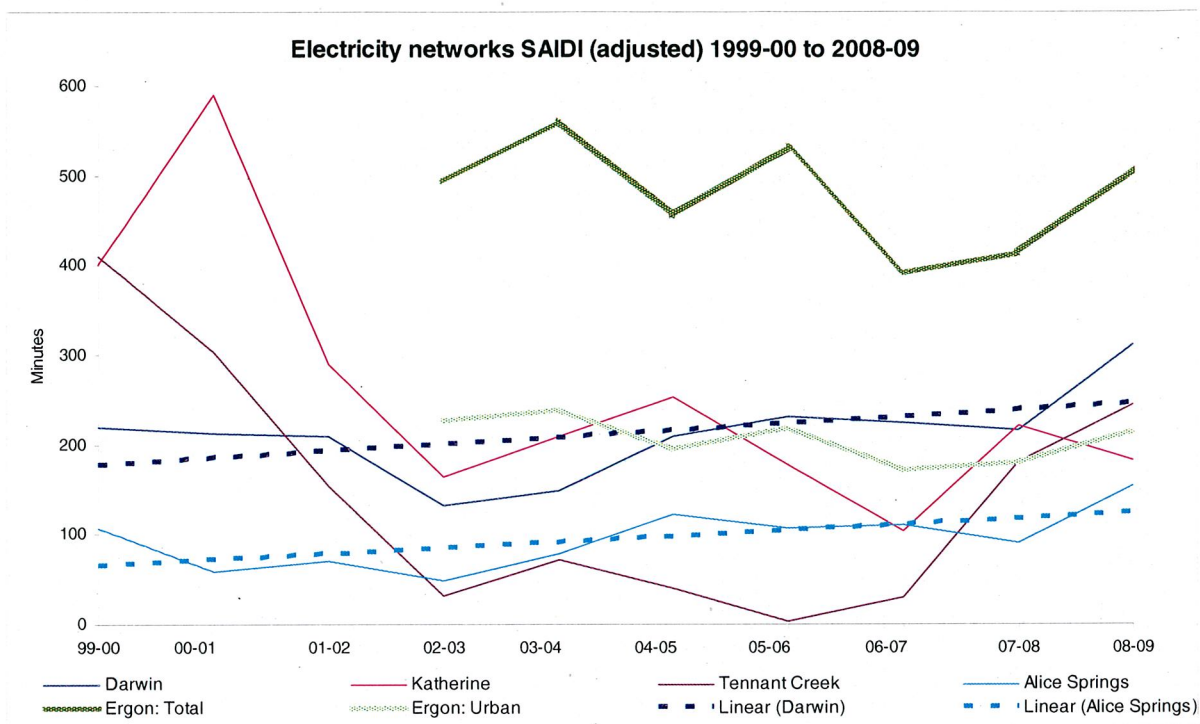
PROPOSALS	NETWORK SERVICE PROVIDER			GENERATORS			RETAILERS		
	Indicator	Definition	Data segmentation	Indicator	Definition	Data segmentation	Indicator	Definition	Data segmentation
<b>Reliability indicators</b>	SAIDI (System Average Interruption Duration Index)	Average minutes of off-supply per customer	Feeder type: CBD, urban, rural short, rural long Regions: Darwin-Katherine, Alice Springs, Tenant Creek Planned and Unplanned Exclude events using Beta method and defined list. Data to be audited.	EFOF (Equivalent Forced Outage Factor)	Percentage of time generating units are unavailable due to forced outages	N/A - PWC proposes to report on these indicators, but does not consider that service targets should be set (refer to response to Q3)	N/A	N/A	N/A
	SAIFI (System Average Interruption Frequency Index)	Average number of interruptions per customer	Feeder type: CBD, urban, rural short, rural long Regions: Darwin-Katherine, Alice Springs, Tenant Creek Planned and Unplanned Exclude events using Beta method and defined list. Data to be audited.	EAF (Equivalent Availability Factor)	Percentage of overall availability due to all causes.	N/A - PWC proposes to report on these indicators, but does not consider that service targets should be set (refer to response to Q3)	N/A	N/A	N/A
<b>Quality indicators</b>	Complaints about quality of supply	Number of complaints received in relation to voltage events such as voltage dips, swells, spikes etc.	Regions: Darwin, Katherine, Alice Springs, Tenant Creek	N/A	N/A	N/A	N/A	N/A	N/A

PROPOSALS	NETWORK SERVICE PROVIDER			GENERATORS			RETAILERS		
	Indicator	Definition	Data segmentation	Indicator	Definition	Data segmentation	Indicator	Definition	Data segmentation
Customer Service indicators	Complaints received relating to Network activities	Number of complaints received relating to Network activities (excluding voltage events)	Regions: Darwin, Katherine, Alice Springs, Tenant Creek	N/A	N/A	N/A	Complaints received	Number of customer complaints	Regions: Darwin, Katherine, Alice Springs, Tenant Creek
	Connection services	New connections not provided to existing supply properties within certain timeframe New connections not provided to new subdivisions within certain timeframe	Location: urban, rural or remote.	N/A	N/A	N/A	Telephone calls answered within time limit	Number and percentage of telephone calls responded to within certain time limit from when the customer selects to speak to a human operator.	NT wide (ie. data cannot be segmented into regions)
	N/A	N/A	N/A	N/A	N/A	N/A	Telephone calls abandoned	A telephone call is considered to be abandoned when a customer calls via PWC's free call number, selects an option via the Interactive Voice Response (IVR) system, is put into the call queue (Q-master) and then terminates the call before it is answered by a live operator. <sup>1</sup>	NT wide (ie. data cannot be segmented into regions or between business units)

<sup>1</sup> Proposed definition currently includes customers who terminate their call after accessing the Message Assignment Facility (MAF) which is activated during supply incidents. This is not considered to be a true abandoned call, as it generally means that the customer has received information that they were seeking, and do not need to talk to an operator. Retail are currently investigating how to segregate these calls.



## Appendix 2 – Network reliability performance



Source data:

Power and Water's submission on Key Service Performance Indicators  
[http://www.nt.gov.au/ntt/utilicom/electricity/standards\\_of\\_service.shtml](http://www.nt.gov.au/ntt/utilicom/electricity/standards_of_service.shtml)

Ergon Energy - Electricity Distribution Quarterly Service Quality Reports  
<http://www.qca.org.au/electricity/service-quality/qtrservqualrep.php>