

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

Dear Andrew

Re: Review of Options for Implementation of a Customer Service Incentive Scheme for Electricity Customers – Power and Water's Response to Issues Paper

Thank you for the opportunity to comment on the Utilities Commission's Issues Paper regarding options for the implementation of a customer service incentive scheme for Northern Territory electricity customers.

Power and Water's response to the Issues Paper is at Attachment A. The response outlines Power and Water's support for the introduction of a guaranteed service level (GSL) scheme for networks, with generation and retail excluded. Seven network related performance measures are proposed for inclusion in a GSL scheme.

Power and Water proposes that an appropriate commencement date for a GSL scheme would be 1 July 2011, with any costs incurred prior to the next networks regulatory reset being met from the Corporation's profits.

The outcomes of a paper trial should determine whether a financial incentive scheme is introduced.

Please contact Ms Djuna Pollard, Manager Regulation, Pricing and Economic Analysis on (08) 8985 8431 if you have any queries in relation to this response.

Yours sincerely



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4 May 2010

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**REVIEW OF OPTIONS FOR IMPLEMENTATION OF A CUSTOMER
SERVICE INCENTIVE SCHEME FOR ELECTRICITY CUSTOMERS**

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

APRIL 2010

This report contains 12 pages

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1 Executive Summary

- 1.1 Power and Water supports the introduction of a guaranteed service level (GSL) scheme in the Northern Territory, linked to codified service standards and targets. Like other jurisdictions, a GSL scheme should focus on network reliability and network related customer service measures for customers on regulated networks as both Generation and Retail services are notionally subject to competition. Appropriate enabling legislation should also accompany the GSL scheme to ensure certainty for current and prospective service providers in the Northern Territory electricity market.
- 1.2 Power and Water has proposed seven performance measures, with accompanying thresholds and payments that may be considered for inclusion in a GSL scheme. These thresholds and targets for a GSL scheme may change depending on the outcomes of the standards of service review. Design elements for a GSL scheme are also proposed.
- 1.3 Power and Water proposes that a GSL scheme could commence from 1 July 2011. By this time, both Phase 1 of the Asset Management Capability (AMC) project and the upgrade of the Retail Management System (RMS) will have been completed. Both systems are critical for the efficient operation of any GSL scheme.
- 1.4 During the last Networks Regulatory Reset, Power and Water agreed to a paper trial being undertaken to ascertain the merits of introducing financial incentives or penalties for network performance. However, Power and Water notes that most other jurisdictions have not introduced a financial incentive scheme.

2 Introduction

- 2.1 This document is Power and Water's submission in response to the Utilities Commission's (the Commission's) Review of Options for Implementation of a Customer Service Incentive Scheme for Electricity Customers.
- 2.2 Power and Water notes that the Commission's objective in conducting this review is to give electricity service providers the incentive to improve service performance in a form that is appropriate for the Northern Territory. The complementary task of ensuring electricity generation, network and retail service standards are appropriate in the Territory will be the subject of a separate review later this year.
- 2.3 Service Incentive Schemes can be grouped into three categories:
- public reporting schemes;
 - guaranteed service level (GSL) schemes; and
 - financial incentive schemes.
- 2.4 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 are no legislative provisions at this stage for GSL or financial incentive schemes.
- 2.5 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 indicators¹. The initial standards were to apply until June 2009. However, in June 2009 the Commission approved an extension in the initial standards until June 2011, with the intention of reviewing the standards before then.
- 2.6 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.
- 2.7 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;

¹ 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 feeders that experience more than 1 500 (for interconnected networks) and 2 500 (from radial networks) minutes of interruptions a year;
- 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.

2.8 Power and Water also prepares and submits to the Commission annually a network planning and reliability report as a requirement of the Commission's Power System Review.

2.9 Power and Water is of the view that any new service incentive schemes proposed for the Northern Territory should also consider the existing public performance reporting schemes and doesn't result in significant additional implementation and administrative costs to Power and Water that customers aren't prepared to pay for.

2.10 Power and Water has, since 2004, supported a customer service incentive scheme that is linked to codified standards of service targets. Some of the issues and concerns with such a scheme are addressed in this submission.

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. Responses have been combined in some instances where the question deals with a similar topic.

Question 1 What reliability of supply measures should be included in a possible Northern Territory GSL scheme and what payment amounts and thresholds might apply?

Question 2 What customer service measures should be included in a possible Northern Territory GSL scheme, and what payment amounts and thresholds should apply?

- 3.2 Network reliability and network related customer service indicators, thresholds and payment amounts that could be included in a GSL scheme in the Northern Territory are set out in Table 1.
- 3.3 In proposing these performance measures, thresholds and payment amounts, Power and Water has been mindful of practices in other jurisdictions, while recognising that the current agreed performance targets in the Northern Territory are likely to change pending the standards of service review.

Table 1: Proposed Service Performance Measures for a Northern Territory GSL Scheme

Performance Indicator	Threshold	Payment
<i>Duration thresholds of single supply interruptions of electricity distribution networks</i>		
Duration of each single supply unplanned interruption	12 hours – 20 hours	\$80
Duration of each single supply unplanned interruption	Greater than 20 hours	\$125
Maximum annual payment (in a financial year)		\$300
<i>Thresholds of the frequency of supply interruptions of electricity distribution networks</i>		
Frequency of unplanned supply interruptions	12 per annum	\$80
<i>Customer service measures</i>		
Notification of planned interruptions	4 business days	\$50
Late connection for supply to existing supply properties in urban areas	24 hours to provide connection	\$50 per late day Cap of \$300
Late connection for supply to new subdivisions in urban areas (where extension or augmentation is not required)	5 business days to provide connection	\$50 per late day Cap of \$300
Responding to written network related enquiries within a specified timeframe	2 weeks	\$80

- 3.4 Feeder performance measures will be re-specified as part of a separate review of the Standards of Service Code and should not be included in the GSL scheme. Other service standards which do not form part of the GSL scheme, such as those relating to quality of supply, are to also be re-assessed as part of the Standards of Service Code review.

Question 3 Should a possible Northern Territory GSL scheme only apply to small customers and if so, how should a small customer be defined?

- 3.5 The thresholds and payments should only apply to business and domestic electricity customers consuming 160 MWh per annum or less. This is on the basis that these 'smaller customers' are not in a position to negotiate variable service levels through individual contracts.

Question 4 Should a possible Northern Territory GSL scheme be restricted to customers on regulated networks?

Question 14 Should a possible Northern Territory financial incentive or GSL scheme only apply to regulated electricity networks?

- 3.6 A GSL or financial incentive scheme in the Northern Territory should only apply to regulated electricity networks, in line with customer service incentive schemes operating in other jurisdictions, which are limited to distribution network service providers.

Question 5 Should service performance thresholds differ for customer groups or geographical areas?

- 3.7 The GSL should only apply to business and domestic electricity customers consuming 160 MWh per annum or less, as previously stated. Service performance thresholds should not differ for customer groups as Power and Water does not differentiate between customers in its provision of services.
- 3.8 The only differentiation based on geographical areas relates to connection for supply in urban areas (refer Table 1). Setting appropriate performance thresholds for rural areas is difficult given the non-standard nature of service delivery. Connections are often performed when there is a 'bulk amount' to be done, and where weather and road conditions often allow access by Power and Water crews.

Question 6 Should escalating payment thresholds be set for some performance indicators and if so, which indicators?

- 3.9 Power and Water proposes that escalating payment thresholds apply to unplanned single supply interruptions. As shown in Table 1, these payments should be \$80 for single supply interruptions of between 12 – 20 hours, and \$125 for single supply interruptions greater than 20 hours in duration. The duration of the outage is to start from the time of customer notification for single customers.

Question 7 Should any supply interruptions be excluded for a GSL scheme and if so, how should their exclusion be determined?

3.10 Events and supply interruptions that should be excluded from a GSL scheme include the following.

- Supply interruptions due to planned outages as these are generally scheduled to undertake necessary repairs and maintenance.
- Momentary interruptions of one minute or less, given the operating environment in the Northern Territory where these can be caused by airborne vegetation during storms and bats.
- Those which are outside the control of service providers including natural events such as cyclones, severe storms, fire and flood, traffic accidents, and vandalism. The exclusion of the effect of severe interruptions should continue to be allowed using the exclusion method approved under the Standards of Service Code.
- Multi-contingency events, for example a number of generating units might fail or trip at the same time, or a transmission fault might occur at the same time as a generator trips. As noted by the Australian Energy Regulator, it would be inefficient to operate the power system to cope with such non-credible events, nor would additional investment in generation or networks necessarily avoid such interruptions.
- An interruption resulting from a direction from the Power System Controller exercising any function under any applicable legislation or code.
- An interruption resulting from a direction by a police officer or another authorised person exercising powers in relation to public safety.
- An interruption requested by a customer, or caused by a customer's actions or electrical installation.

Question 8 How should a possible Northern Territory GSL scheme be funded?

3.11 A GSL scheme implemented in the Northern Territory prior to the next networks regulatory reset would need to be funded from Power and Water's profits until 2014. No allowance for funding of a GSL scheme was included in Power and Water's required network revenue when the Commission determined the price cap to apply from 1 July 2009 to 30 June 2014. Power and Water is of the view that any proposed GSL schemes should be funded through network price determinations, consistent with how GSL schemes are funded in the NEM. The next available opportunity for this is in the determination that will apply to the 2014-2019 regulatory period.

Question 9 What would be an appropriate payment mechanism for a possible Northern Territory GSL scheme?

3.12 The payment mechanism should have the following elements:

- GSL payments to eligible customers will be initiated by way of a claim made by the customer, with claims to be made within three months of the date of the incident and, if eligible, payments to be made within one month of the date the claim is received.
- Any GSL payments will be received as a credit on the customer's electricity account. If there are amounts owed by an electricity account holder, the GSL payments will

go towards rectifying this. In the event that the electricity account should cease prior to the GSL payment being made, then payment of the GSL will be made in some other form, for example a cheque might be mailed to the electricity account holder. These provisions will be included in Power and Water's Customer Contract.

- Only one payment will be made per electricity account for each event regardless of the number of account holders or premises listed on the account affected by the event.
- Annual payment caps will apply per electricity account holder over a financial year period.
- That a cap linked to Power Networks' regulated revenue be applied to the GSL scheme.

Power and Water is upgrading its Retail Management System and would prefer to implement a GSL scheme after the upgrade is completed, that is, post June 2011. This will allow time for the necessary enhancements to cater for a GSL scheme to be included in this system upgrade.

Question 10 Should a financial incentive scheme be implemented in the Northern Territory, and if so:

- *Should it be symmetric or asymmetric?*
- *Should it provide incentives to maintain or improve service performance?*

3.13 As noted by the Commission, not all jurisdictions have introduced a financial incentive scheme, and the experience in those that have has been mixed. A common concern across jurisdictions has been the availability of comprehensive and reliable data series, of a quality that would allow correlations to be drawn between network reliability and expenditure.

3.14 In Tasmania, concerns raised regarding using traditional measures of reliability such as SAIDI and SAIFI in a financial incentive scheme include:

- "the lack of consistent historical data, especially for SAIDI, on which to establish a starting point for such a scheme;
- the difficulty in establishing the impact of past reliability improvement programs, leading to uncertainty about the actual current performance levels, and thus the starting point for such a scheme;
- the difficulty in forecasting the impact of future reliability improvement programs, leading to potentially unachievable or too easily attainable targets with the consequent financial implications; and
- the risk of incorrectly matching performance targets to capital expenditure forecasts."²

As noted by the Commission, Tasmania discontinued the financial incentive scheme for the 2008-2012 regulatory period due to a lack of consistent historical data.

3.15 This is also an issue for Power and Water, particularly the lack of consistent historical data. An accurate baseline of information is necessary before setting a financial incentive scheme. Power and Water has been reporting on SAIDI, SAIFI and CAIDI indicators to the Commission for four years. Prior to this, Power and Water's data was

² Office of the Tasmanian Energy Regulator, May 2007, Draft Position Paper_Service Incentive Scheme, page 9-10
D2010/147861

sufficiently accurate and detailed for internal reporting, but insufficient for the purpose of establishing a financial incentive scheme. The significant increase in network investment over the past four years also complicates the analysis.

- 3.16 As part of its 2009-10 to 2013-14 Networks Pricing Final Determination made in March 2009, the Commission concluded that a paper trial was necessary prior to introducing financial incentives or penalties for network performance from 1 July 2014 (this is also the date from which the Australian Energy Regulator expects the application of the national service target performance incentive scheme to apply in New South Wales and the Australian Capital Territory). Power and Water agreed with this approach; however, the details surrounding the paper trial were not outlined in the Determination and to date Power and Water has not been approached by the Commission to progress this matter.
- 3.17 If a paper trial is introduced in this regulatory period, a key question that will need to be addressed is how the financial incentive scheme would apply in the context of the Total Factor Productivity (TFP) based X factors in the control mechanism. Service quality inputs (eg. capital expenditure to increase service quality) are included as a TFP input, however quality (eg. improved service reliability) is not included as an output. This can lead to situations where a service provider can be penalised for incurring capital expenditure that improves service performance. For example, under the TFP approach Power and Water is 'penalised' on the input side for undertaking capital expenditure for its undergrounding program. However, the increased reliability associated with this increased expenditure is not recognised as increased output.
- 3.18 Another important consideration for the Commission is whether the introduction of a financial incentive scheme is actually feasible and meaningful in the Northern Territory.
- 3.19 The Commission notes that the usual form of a financial incentive scheme is to reduce network charges when performance falls below benchmark levels, and conversely increase network charges when performance benchmarks are exceeded. The Commission would be aware that the retail electricity tariffs currently charged by Power and Water are not cost-reflective, with the current price path continuing until 30 June 2013. In this regard, under the current regime, any performance based changes in network charges will not flow through to the end tariff paid by the vast majority of customers, as these are subject to Pricing Orders ie. electricity customers consuming less than 750 MWh per annum and some Tranche 4 customers. Effectively, this results in a potential increase or decrease in profits to retailers unless appropriately subsidised by the Northern Territory Government.
- 3.20 If the Commission does decide to introduce a financial incentive scheme, the scheme should be symmetric, with both rewards and penalties possible. The incentive to improve service performance is created if Power and Water's network business is rewarded and allowed to earn higher revenues, from higher prices, if performance is better than the agreed benchmark.

Question 11 What performance measures should apply to a possible Northern Territory financial incentive scheme and should any particular performance measures be weighted more heavily than others?

- 3.21 Reliability of supply and customer service performance measures could apply to a possible financial incentive scheme in the Territory. Unplanned SAIDI, unplanned SAIFI, new connections and response to written network related enquiries may be considered for inclusion. These measures are used in a number of other jurisdictions.

- 3.22 The outcomes of a paper trial should inform which measures provide the most relevant incentives to improve performance at appropriate cost, and whether any particular performance measures should be weighted more heavily than others. An assessment of whether customers are willing to pay more for a better service should also be considered prior to the formal introduction of a financial incentive scheme.

Question 12 Should possible incentive rates be based on the cost to the network service provider to improve performance or the value customers place on a particular measure of service performance?

- 3.23 Calculating the s factor could be based on the cost to achieve defined and measurable improvements in performance; for example, the cost to reduce unplanned SAIDI by one unit. This would be less subjective than an approach based on the value customers place on service improvements, which is almost impossible to determine.

Question 13 Should a possible Northern Territory financial incentive or GSL scheme include generation reliability and retail customer service measures as well as network service performance measures?

- 3.24 Financial incentive schemes and a GSL scheme should only focus on network service reliability and network related customer service performance measures. GSL schemes in other jurisdictions are limited to distribution network service providers as these are regulated monopoly businesses. In the absence of any benchmarks, it would be difficult to set appropriate targets and thresholds for a GSL scheme. As such, retail customer service and generation reliability measures should be excluded from these schemes.

- 3.25 In addition, Power and Water notes that both generation and retail services are both now notionally open to competition. As a result, other avenues exist, at least theoretically, to address service level issues.

Question 15 Should a possible Northern Territory financial incentive or GSL scheme include an allowance to extend the scheme to other service providers who may enter the Northern Territory market?

- 3.26 Power and Water is proposing that a possible financial incentive or GSL scheme only apply to distributed network providers, where a natural monopoly exists.

Question 16 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.

- 3.27 Responsibility for ensuring a safe, reliable and secure power system in regulated areas rests with System Control, which is currently a function within Power and Water's Power Networks Business Unit. System Control is responsible for ensuring that the power system is managed in accordance with the obligations and responsibilities outlined in the *Electricity Reform Act*, Electricity Networks (Third Party Access) Code, Network Technical Code, System Control Technical Code and other relevant codes and standards.

- 3.28 System Control's Hudson Creek Control Centre utilises a computerised Supervisory Control and Data Acquisition (SCADA) system, with distributed operations consoles, to

remotely monitor, control and direct the generation and transmission of electricity throughout the Darwin/Katherine, Tennant Creek and Alice Springs grids.

- 3.29 Outages are currently recorded in Power and Water's Facilities Information System (FIS). The AMC Project will provide similar capability but will differentiate between planned and unplanned events and record outage events at the customer level. This project is expected to be completed by June 2011.
- 3.30 The current SCADA system only operates and provides visibility of the high voltage network. The low voltage (LV) components are manually switched and not subject to monitoring and oversight. Consequently, identification of customers affected by network events in the current environment are estimated to be plus/minus 10 per cent.
- 3.31 Power and Water would need to acquire a distribution management system (DMS) module to cover the LV parts of the network in order to improve the accuracy of its reporting systems. Estimated costs are in the order of \$4 million, which includes information technology costs, training costs, and field operational costs in setting the software to accurately map households to the distribution network.