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

DRAFT REPORT

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CHAPTER 1

Overview

Introduction

1.1 In November 2009, the Treasurer endorsed terms of reference for the Commission to undertake a review of options for the implementation of a customer service incentive scheme for electricity customers. The purpose of the review is to investigate and report on options for implementation of:

- a financial incentive scheme, by which the Power and Water Corporation (PWC) is rewarded or penalised through higher or lower electricity prices for service performance; and
- a guaranteed service level scheme, by which individual customers receive payments if PWC does not meet minimum acceptable standards of service to those individual customers.

1.2 The purpose of this review is to recommend a course of action that will ensure electricity generation, networks and retail service standards are appropriate in the Territory, and give PWC, as the sole electricity service provider, the incentive to improve service performance.

Proposed guaranteed service level scheme

1.3 The Commission's recommendation is that a guaranteed service level (GSL) scheme providing for payments to be made to customers who receive very poor levels of service should be implemented in the Northern Territory.

1.4 The proposed scheme includes network and generation reliability measures and network customer service measures. Retail customer service measures have not been included at this time.

1.5 The Commission's recommended performance measures, thresholds and payment amounts are set out in table 1.1.

Table 1.1: GSL scheme performance measures, thresholds and payment amounts

Performance measure	Threshold	GSL Payment
Frequency of outages.	Interconnected networks: More than 12 outages in a 12 month period	$80.00
	Radial networks: More than 16 outages in a 12 month period	$80.00

Performance measure	Threshold	GSL Payment
Duration of a single outage.	More than 12 hours and less than 20 hours. More than 20 hours.	$80.00 per event. $125.00 per event. To a maximum of $300.00 in a 12 month period.
Cumulative duration of outages.	More than 20 hours in a 12 month period.	$125.00
Failure to establish a new connection within a specified time.	Within 24 hours to an existing property. Within 5 business days to a property in a new urban subdivision.	$50.00 per day late, up to a maximum of $300.00
Failure to give sufficient notice of planned outages.	At least 4 business days notice.	$50.00
Failure to keep a (network related) appointment on time.	Within 30 minutes of agreed time.	$20.00
Failure to respond to a (network related) written enquiry within a specified time.	Within 2 weeks of receipt.	$80.00

1.6 The scheme will only apply to small customers using less than 160 megawatt hours (MWh) a year and located in the Darwin-Katherine, Alice Springs and Tennant Creek systems.

1.7 The following events and supply interruptions would not give rise to a GSL payment:

- supply interruptions due to planned outages, where at least four business days notice has been given of the planned outage.
- momentary interruptions of less than one minute.
- events that are outside the reasonable control of the service provider, such as traffic accidents and vandalism, and natural events that affect more than 5 per cent of customers in a service area.

  The service provider must apply in writing to the Commission, within 30 business days of the event occurring identifying:

  a) the relevant event;

  b) the impact of the event on the service provider's reliability performance;

  c) the proposed extent of the exclusion; and

  d) reasons explaining why the Commission should consider the event as an exclusion.
- an interruption resulting from System Control exercising any function or power under any applicable legislation or code.
- an interruption resulting from a direction by a police officer or other 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.

1.8 The scheme shall be funded from PWC's general revenue.

1.9 GSL payments are to be made automatically via rebate on the next bill, or in another form agreed between PWC and the recipient if they are no longer a customer of PWC and will not receive a future bill.

1.10 Customers will have the ability to claim a payment if they consider they have experienced service performance that warrants a GSL payment.

1.11 Where the service provider does not have systems in place to identify specific individual customers affected by supply interruptions, the service provider must assume that when a feeder experiences an outage, all customers on that feeder are affected. Where the number of outages on a feeder, the duration of a single outage on a feeder or the cumulative duration of all outages on a feeder in a financial year exceed the relevant GSL threshold, an automatic payment should be made to all customers on that feeder, irrespective of whether they actually experienced all of the interruptions.

1.12 The service provider will publish information so that customers can identify if they are supplied through an interconnected or radial network.

1.13 The GSL scheme, including thresholds and payment levels, will be reviewed as part of the five yearly network price determination process.

Proposed financial incentive scheme

Networks

1.14 The Commission's recommendation is that a financial incentive scheme providing for adjustments to network tariffs linked to average service performance for all customers not be implemented at this time.

1.15 The Commission is not satisfied about the reliability of data to set a base level of performance or the financial volatility associated with such a scheme in the Territory.

1.16 Consistent with the 2009 network price determination, a paper trial of a financial incentive scheme will be run for the 2009-10 to 2013-14 regulatory period to provide further analysis of the costs and benefits of implementing such a scheme in future periods.

1.17 The paper trial will determine an s-factor based on SAIDI performance.

1.18 The paper trial will be based on one region only (Territory wide), rather than having separate targets for different regions.

1.19 The baseline target against which performance will be measured is a rolling average of actual performance over the five preceding years.

1.20 The incentive rate used will be the Australian Energy Regulator (AER) 'value of customer reliability' for non-CBD segments of $47,850/MWh, adjusted by the consumer price index (CPI) from the September quarter 2008 to the start of the relevant regulatory period, set out in the AER's Service Target Performance Incentive Scheme.[1]

1.21 The methodology adopted for the paper trial will be the methodology set out in the AER scheme.

Generation

1.22 No financial incentive scheme is proposed for generation at this time due to practical difficulties of implementation.

1.23 However, the Commission considers the lack of competition in the generation sector in the Territory, and the lack of financial incentives for reliability, means there is a strong case for introduction of regulatory measures to encourage reliable generation service performance.

Implementation

1.24 The Commission considers that implementation of a GSL scheme in the Territory requires introduction of regulations. The Commission will seek legal advice on the scope of legislative change needed to support the introduction of a GSL scheme.

1.25 The Commission notes that the *Electricity Networks (Third Party Access) Act* and Code currently provide for the implementation of a financial incentive scheme. No legislative change is required to establish a financial incentive scheme for distribution network services.

[1] Australian Energy Regulator, November 2009, Electricity Distribution Network Service Providers Service Target Performance Incentive Scheme.

CHAPTER 2

Introduction

Background

2.1 The electricity supply industry in the Northern Territory is regulated by the *Electricity Reform Act*, *Electricity Networks (Third Party Access) Act*, *Utilities Commission Act* and associated legislation. This statutory framework was introduced on 1 April 2000.

2.2 The statutory framework is primarily focused on regulating the activities of electricity industry participants and customers in the Darwin Katherine, Alice Springs and Tennant Creek power systems – referred to as the market systems. Key elements of the statutory framework are:

- third party access to the Darwin Katherine, Alice Springs and Tennant Creek electricity networks;
- staged introduction of retail contestability, with all customers to become contestable from 1 April 2010; and
- an independent economic regulator, the Utilities Commission, to regulate monopoly electricity services, licence market participants and enforce regulatory standards for market conduct and service performance.

2.3 The Power and Water Corporation (PWC) is the main participant in the market systems, generating the majority of electricity, operating the network and supplying retail services to all customers. PWC also provides water supply and sewerage services to customers throughout the Territory.

2.4 PWC is a vertically integrated electricity service provider, with generation, network and retail business units operating as separate businesses.[2] The commercial relationship and transactions between each unit is subject to oversight and regulation by the Commission.[3] PWC is owned by the Territory Government, and is also subject to oversight by a shareholding Minister through the *Government Owned Corporations Act*.

2.5 In the three market systems, PWC is currently the sole electricity retailer, supplying electricity to 74 365 customers at 30 June 2009.[4] PWC is also the main electricity generator, with almost 91 per cent of generation capacity. There are four other firms generating electricity for the Darwin-Katherine and Alice Springs systems. However, these businesses generate electricity under contract for PWC rather than selling

[2] This paper refers to the separate business units as PWC Retail, PWC Networks and PWC Generation.

[3] Regulatory instruments include the licensing framework and the Northern Territory Electricity Ring-Fencing Code.

[4] Power and Water Corporation, September 2009, 2008-09 Annual Report, page 23.

directly to an electricity retailer, and PWC provides the fuel used for electricity generation.[5]

2.6 PWC operates the Darwin-Katherine, Alice Springs and Tennant Creek networks, and is responsible for system control.[6] The networks are not interconnected, and are separated by long distances. The networks comprise 730 kilometres (km) of high voltage transmission lines and 7378 km of low voltage distribution lines.[7]

2.7 Electricity supply in regional and remote centres of the Territory is mainly managed by the Territory Government and a service provider through a contract for service model. These systems include: the 72 communities and about 600 outstations where essential services are provided through the Territory Government Indigenous Essential Services program; three mining townships (i.e. Nhulunbuy, Alyangula and Jabiru), where electricity is supplied by the associated mining firm; and eight remote townships (e.g. Elliott, Yulara and Ti-Tree).

Developing a customer service incentive scheme for the Northern Territory

2.8 The Commission is required to review and report on options for implementation of a customer service incentive scheme under the Electricity Standards of Service (ESS) Code. The purpose of the review is to recommend options for the design of a scheme to give electricity service providers the incentive to improve service performance.

2.9 The terms of reference require consideration of the merits of implementing a customer service incentive scheme for electricity generation, networks and retail services. Although customer service incentive schemes operating elsewhere in Australia are generally limited to distribution network service providers, no aspect of performance of the electricity supply industry is excluded for the purposes of this review.

2.10 Performance which could be subject to a guaranteed service level (GSL) scheme include frequent outages or long outages (e.g. payment if a customer in an urban area experiences more than a defined number of outages in any year, or if supply is interrupted for more than a defined period). Performance which could be subject to a financial incentive scheme includes average frequency of outages, average duration of outages, and telephone answering time.

Summary of terms of reference

2.11 The terms of reference require the Commission to:

- report on the merits of implementing a customer service incentive scheme or similar service performance incentive scheme in the Territory;

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[5] These generators are located at Pine Creek (between Darwin and Katherine), Shoal Bay (at the Darwin City Council dump) and Brewer Estate (in Alice Springs).

[6] The System Controller is located in the PWC networks business unit, and is responsible for monitoring and controlling the operation of the power system to ensure the system operates reliably, safely and securely in accordance with the System Control Technical Code.

[7] Power and Water Corporation, September 2009, 2008-09 Annual Report, page 23.

- identify options for the design of a customer service incentive scheme in the Territory;
- recommend a preferred option for the design of a customer service incentive scheme, and provide detailed plans for implementation of that recommendation.

2.12 In undertaking the review, the Commission is to take into account:

- any recent relevant policy developments and regulatory practice in other jurisdictions, particularly the development of the service target performance incentive scheme by the Australian Energy Regulator (AER);
- the capability of PWC systems to reliably record the impact and duration of interruptions to supply or poor service performance; and
- all relevant economic and policy developments, including current and forecast economic conditions.

Overview of Issues Paper and submissions

2.13 The Commission released an Issues Paper on 24 March 2010 to initiate the Review and to obtain comment from interested parties on the considerations and issues for implementing a customer service incentive scheme for electricity customers in the Territory.

2.14 The Issues Paper examined the current arrangements and recent history of service performance in the Territory, and considered the practice and experience with customer service incentive schemes in other Australian jurisdictions. The Issues Paper also sought comment:

- the types of performance that should be included in a possible Territory financial incentive scheme or GSL scheme, and the payment amounts and thresholds that might apply;
- the degree to which PWC's existing systems can support a financial incentive scheme or GSL scheme and whether the costs involved in implementing systems improvements may outweigh the benefits;
- whether a GSL scheme should apply to all customers or only to small customers, and how small customers should be defined;
- whether a financial incentive scheme or GSL scheme should include outages related to generation;
- funding and payments options; and
- what type of events (e.g. cyclones) should be excluded.

2.15 The Commission received four submissions on the matters raised in the Issues Paper from:

- Northern Territory Treasury (Treasury);
- Northern Territory Major Energy Users (NTMEU);
- Energy Retailers Association of Australia (ERAA); and
- Power and Water Corporation (PWC).

NTT

2.16 Treasury expressed the view that there is a strong case for the introduction of a GSL scheme in the Territory, particularly in view of current market structure and the dominance of a single service provider.

2.17 However, Treasury did not consider that the merits of a financial incentive scheme were obvious at this stage, with experience in other jurisdictions about the effectiveness of such schemes being inconclusive. Treasury expresses the view that further analysis of the costs and benefits of a financial incentive scheme should be undertaken before such a scheme is implemented in the Territory.

NTMEU

2.18 The NTMEU supported the introduction of both a financial incentive scheme and a GSL scheme covering all sectors of the energy chain, appropriately adjusted. The NTMEU expressed a preference for a scheme based on either the South Australian or Victorian models, rather than the AER model, with the AER model considered prone to gaming by service providers.

ERAA

2.19 ERAA expressed the view that inclusion of retailers in a customer service incentive scheme would have a detrimental effect on the eventual establishment of a competitive energy retail market in the Territory.

2.20 ERAA considers that customer service incentive schemes should only be implemented where there is a natural monopoly, and that the Commission should instead focus on measures that will foster competition. ERAA also noted the compliance and administration costs associated with customer service incentive schemes, and noted that current national energy market reforms are aiming to reduce these compliance burdens.

PWC

2.21 PWC supports the introduction of a GSL scheme for network services, but not for generation or retail services as these market segments are contestable. PWC proposed a number of measures for inclusion in a GSL scheme, and the associated thresholds and payments.

2.22 PWC indicated some concerns and problems with implementing a financial incentive scheme, and noted that most jurisdictions are yet to introduce such schemes. PWC also expressed the view that any new customer service incentive scheme should consider the existing public performance reporting arrangements and ensure that any significant additional implementation and administrative costs are avoided.

Purpose of this paper

2.23 This draft Report sets out the Commission's proposals for the implementation of a customer service incentive scheme for electricity customers in the Territory.

2.24 The Commission is seeking comment from interested parties on the preliminary proposals and implementation considerations in this Draft Report by 25 June 2010.

2.25 The Commission is to submit a final Report with final recommendations to the Treasurer in July 2010.

Timetable for review

2.26 The timetable guiding the Commission's consultation process and the final report to the Minister is set out in table 2.1 below.

Table 2.1: Review timetable

Due Date	Action
Friday 28 May 2010	Release of Draft Report
Friday 25 June 2010	Submissions on Draft Report due
Friday 23 July 2010	Final Report provided to Minister

CHAPTER 3

Objectives and principles

Service incentive schemes

3.1 Standards of service are an important feature in any industry. However, firms operating in sectors with natural monopoly characteristics, such as electricity distribution networks, are subject to little or no competition, and have less incentive to provide good service as customers generally cannot move to an alternative provider.

3.2 In the case of the electricity industry, governments or industry regulators typically monitor the performance of electricity network service providers to ensure they provide acceptable levels of service. In the Territory, this approach could be extended to PWC's generation and retail businesses which also operate in an environment where they currently have no competitors.

3.3 The two most common approaches adopted in Australia to provide electricity service providers with financial incentives to achieve a certain performance are:

- GSL schemes which involve payments to customers when performance does not meet a defined standards of service; and
- financial incentive (also referred to as s factor) schemes which establish financial incentives and penalties for network performance and are imposed through the network revenue or price regulation framework.

3.4 Additionally, service providers may commit to self imposed standards of service, for example by agreeing to voluntarily make a payment to customers for breach of a standard defined in a customer charter.

Objectives of a GSL scheme

3.5 A GSL scheme involves payments by a service provider to individual customers who have received a very poor level of service, as defined by a government or independent regulator. GSL schemes most commonly apply to distribution networks service providers (DNSP).

3.6 The main objective of a GSL scheme is to encourage improvement in areas of poor performance. A GSL scheme also provides customers with reassurance that the poor performance they have received is recognised and acknowledged by the service provider and will be addressed.

3.7 GSL schemes are designed to set a floor to the level of service that a customer is entitled to receive. This is done by setting a threshold level for a particular aspect of service performance. If the actual level of service falls short, the service provider is required to make a payment to the affected customers. The threshold levels and the related customer payments are set in advance, so that customers know the standard of service they should expect to receive, and the service provider knows the consequences if those service levels are not met. Primarily, GSL schemes are designed to provide an incentive to improve service to the worst served customers.

3.8 There is a definite distinction between GSL payments and 'compensation' payments for poor service performance. GSL payments are an amount paid to customers that receive service levels below a predetermined threshold, and is a recognition of poor service rather than as compensation. Compensation for poor service performance involves customers making claim for loss or damage arising from loss of supply or from poor quality of supply.

The case for a GSL scheme

3.9 Introduction of a GSL scheme for network services was supported in all submissions. However, there is less support for a GSL scheme for generation and retail businesses, with both PWC and the ERAA expressing the view that such schemes are best restricted to natural monopolies, and not imposed in sectors where there is a potential for competition to develop.

3.10 GSL schemes for DNSPs are well established throughout Australia and currently operate in every Australian jurisdiction except the Territory. These schemes generally include reliability performance measures relating to the frequency and duration of outages and network related customer service measures such as meeting specified timeframes for new connections, appointments and responding to enquiries.

3.11 There is competition in the generation and retail sectors of the electricity industry in other Australian jurisdictions, with multiple generators of electricity and multiple retailers operating in the market. Customers not satisfied with retail performance are able to move to another retailer, while generators not meeting reliability and quality of supply requirements are not dispatched. These competitive disciplines (supported by technical and customer protection measures) encourage retailers and generators to strive to maintain and improve service performance.

3.12 The situation in the Territory is somewhat different, with PWC currently the sole electricity retailer and main electricity generator. Although PWC may argue that these sectors are open to competition, the reality is that there are no competitors to PWC in these markets at this time. Moreover, competition in the retail sector is unlikely while small customer retail prices are below cost reflective levels, and competition in the generation sector is unlikely given the fuel supply situation, and lack of market signals of investment opportunities.

3.13 Where a firm or industry has the potential for exercising monopoly power, regulatory measures, such as the regulation of service performance through GSL or financial incentive schemes are needed to ensure that acceptable service performance is maintained.[8]

3.14 Unlike the National Electricity Market (NEM), Territory customers experience regular outages due to poor generation performance. Generation reliability outcomes in the

[8] Essential Services Commission of South Australia, November 2008, South Australian Distribution Service Standards 2010-2015 Final Decision, pages 7-8.

Territory can probably be partly to the small scale of the systems, and the number and location of generation facilities means there is less reserve or redundant capacity than in the NEM. However, reliability outcomes could be influenced by the lack of competition in the generation sector, with PWC Generation operating in a monopoly environment, and facing fewer incentives to provide improved service performance than exist in the NEM or a similar competitive environment.

3.15 With no market mechanism to promote improvement in performance in the Territory, there is a case for introducing regulatory measures to achieve acceptable performance levels. From a customer perspective, frequent or long power outages should be recognised, regardless of whether they are caused by poor network or generation service performance.

3.16 As with the electricity generation sector, the absence of competition in the retail sector means that PWC Retail faces fewer incentives to provide improved service performance than exist in the NEM or a similar competitive environment.

3.17 Retail activities relate to packaging of the services provided by generation and networks, and billing for these services. Performance measures relating to retail could encompass the answering phones within a specified time and dealing with billing and other complaints. As such, retail performance is more subjective, and is not always suited to inclusion in a GSL scheme.

Commission's draft recommendation

3.18 The Commission's draft recommendation is that a GSL scheme providing for payments to be made to customers who receive very poor levels of service should be implemented in the Territory.

3.19 The scheme should include both network and generation reliability performance measures and network related customer service measures. Retail customer service measures should not be included at this time.

Objectives of a financial incentive scheme

3.20 A financial incentive scheme involves adjustments to regulated electricity network prices in response to service performance, and is based around achieving an average performance for all customers. Financial incentive schemes apply to network service providers.

3.21 The objective of a financial incentive scheme is to encourage improvement in average system performance by allowing a DNSP to earn higher regulated revenues, from higher network charges, if performance is better than the agreed benchmark. This arrangement is included in the network price control determination by the regulator.

3.22 Financial incentive schemes in Australia are generally symmetric, reducing network charges when performance falls below benchmark levels, and increasing network charges when performance exceeds benchmark service levels.

3.23 In addition, a financial incentive scheme can be designed to promote different levels of service performance. As noted by the AER, a financial incentive scheme can be designed to:[9]

- maintain a desired performance level simply by setting a target and providing a reward when performance exceeds the target and a penalty if the target is not met;
- provide an incentive to improve performance over time by changing the target annually so that the network service provider is required to improve performance each year just to meet the target; or
- reward sustained performance improvements by setting the target for a year at the actual result for the previous year. Network service providers are thereby rewarded when service is better than the previous year and penalised when service is worse than the previous year.

The case for a financial incentive scheme

3.24 The Issues Paper sought comment on whether or not a financial incentive scheme should be implemented as part of a broader question regarding design elements.

3.25 The NTMEU supported the introduction of a financial incentive scheme in the Territory, and expressed a preference for a Territory scheme based schemes operating in Victoria and South Australia. The NTMEU consider that these schemes provide adequate and appropriate trade offs between targets, incentives and penalties and sufficient financial drivers that seek to achieve efficiency.

3.26 The NTMEU noted that the national scheme developed by the AER does not provide the degree of incentive that a DNSP to improve performance, does not focus on the network elements most in need of attention and the financial stakes of the scheme are easily overtaken by 'gaming' by the DNSP in other areas of the building block regulatory mechanism.

3.27 Neither Treasury or PWC supported the introduction of a financial incentive scheme at this time.

3.28 Treasury noted that based on the experience to date in other jurisdictions the effectiveness of financial incentive schemes is inconclusive. Factors noted by other regulators, such as lack of consistent historical data, difficulties in accurate forecasting and delays in processing data which contributed to incorrect baseline assumptions and targets, are also issues that are likely to arise in implementing a financial incentive scheme in the Territory. Treasury expressed the view that further analysis of the costs and benefits of such a scheme should be undertaken before considering implementation.

3.29 PWC also noted a number of concerns regarding data reliability, advising that although the performance data collected by PWC is sufficiently accurate and detailed for internal reporting, the data is not sufficient for the purpose of establishing a financial incentive scheme. PWC noted that the Commission had concluded in the 2009 network price

[9] Australian Energy Regulator, November 2007, Electricity distribution network service providers: service target performance incentive scheme: Issues Paper, page 11.

determination that a paper trial was necessary prior to introducing financial incentives or penalties for network performance.

3.30 ERAA did not specifically address the implementation of a financial incentive scheme.

3.31 Financial incentive schemes operate in Victoria, South Australia and Western Australia, and New South Wales ran a paper trial for the 2004-2009 regulatory period. Tasmania had a financial incentive scheme in place, but this was discontinued for the 2008-2012 regulatory period due to a lack of consistent historical data. There are no financial incentive schemes implemented in Queensland or the Australian Capital Territory.

3.32 The Ministerial Council on Energy (MCE) transferred the economic regulation of electricity distribution networks to the AER on 1 January 2008. The National Electricity Rules require the AER to publish a service target performance incentive scheme, which occurred in November 2009. However, transitional arrangements require the AER to have regard to any average or minimum service standards and GSL schemes that apply to DNSPs under jurisdictional electricity legislation.

3.33 The AER has now undertaken network price reviews for New South Wales (for the 2009 to 2014 regulatory period), the Australian Capital Territory (for the 2009 to 2014 regulatory period), Queensland (for the 2010 to 2105 regulatory period) and South Australia (for the 2010 to 2015 regulatory period).

3.34 For New South Wales and the Australian Capital Territory, the AER decided to collect and monitor the DNSPs service performance data during the 2009 to 2014 regulatory period, with no revenue being placed at risk during this period. However, the AER expects this to provide a reliable data series to allow the application of the national scheme in New South Wales from 1 July 2014.

3.35 For Queensland and South Australia, the AER determined that the service target performance incentive scheme would apply to the local DNSPs.

3.36 The Commission notes PWC's concerns about the reliability of historical data as the basis for setting targets for a financial incentive scheme. The Commission is also mindful of the decision as part of its 2009 to 2014 network price determination to undertake a paper trial during the regulatory period before introducing any financial incentives from 1 July 2014.

3.37 The issues that concern the Commission are:

- the potential accuracy and availability of data. Poor data could lead to some perverse incentives and outcomes;
- the observed variability of service performance indicators are a concern, but the short period of data available limits the ability to smooth possible price effects; and
- as the accuracy of the service performance data improves, reported reliability levels could worsen unrelated to poor performance.

3.38 The Commission is of the view that, at this time, uncertainty about the reliability of performance data means a financial incentive scheme for PWC Networks is data involving actual monetary incentives or penalties means such a scheme may not work as intended. Additionally, the Commission considers there is merit in waiting on evidence of the effectiveness of the AER financial incentive scheme.

3.39 The Commission notes that financial incentive schemes in Australia only apply to businesses subject to price regulation, such as DNSPs, and the approach does not lend itself to application businesses with prices which are set in a market, such as generators.

3.40 However, the Commission considers the lack of competition and financial incentives for reliability in the generation sector in the Territory means there is a strong case for introduction of regulatory measures to encourage reliable generation service performance.

Commission's draft recommendation

3.41 The Commission's recommendation is that a paper trial of a financial incentive scheme for PWC Networks be undertaken for the 2009-10 to 2013-14 regulatory period to provide more reliable data on which to base a decision as to whether to introduce a financial incentive scheme for the next regulatory period starting on 1 July 2014.

3.42 The Commission is not satisfied about the reliability of data to set a base level of performance or the financial volatility associated with such a scheme in the Territory.

3.43 No financial incentive scheme is proposed for generation at this time due to practical difficulties of implementation. However, the Commission will continue to explore options for establishing financial incentives to encourage reliable generation service performance.

CHAPTER 4

Proposed design of a guaranteed service level scheme

Key design features

4.1 The Issues Paper identified the following key features of the design of a GSL scheme.

- the types of performance indicators included in the GSL scheme;
- the payment amounts and thresholds that might apply;
- the customers that should be the target of a GSL scheme;
- what type of events (e.g. cyclones) should be excluded from the scheme; and
- funding and payments options.

4.2 Only the PWC submission addressed issues relating to the design of a GSL scheme.

Proposed performance indicators, thresholds and payment amounts

Reliability of supply indicators

4.3 The Issues Paper sought comment on what reliability of supply indicators should be included in a possible Territory GSL scheme and what payment amounts and thresholds might apply (Q1).

Views in submissions

4.4 PWC proposed two reliability measures for network reliability:

- the frequency of unplanned supply interruptions; and
- the duration of each single unplanned supply interruption, with two thresholds for the duration of a single outage.

4.5 PWC's proposed indicators, thresholds and payments are shown in table 4.1.

Table 4.1: PWC proposed reliability performance indicators, thresholds and payment amounts

Indicator	Threshold	Payment Amount
Duration of each single unplanned network interruption	12 hours - 20 hours	$80.00
Duration of each single unplanned network interruption	Greater than 20 hours	$125.00
Maximum annual payment (in a financial year)		$300.00
Frequency of unplanned network interruptions	12 per year	$80.00

4.6 No differentiation in the service targets between geographical areas was proposed, as PWC does not differentiate between customers based on location when providing network services.

Commission's draft decision

4.7 The Commission recommends that the measures and payment amounts proposed by PWC for reliability of supply performance indicators be included in a Territory GSL scheme with some variation.

4.8 The Commission is of the view that generation outages should be included in a Territory GSL scheme. From a customer perspective, the issue is the loss of power regardless of the reason.

4.9 The Commission does not expect that poor generation reliability would ever trigger a GSL payment, as generation related outages are less frequent than network related outages. Moreover, load shedding practices can be used to spread the affect of generation related outages across all customers in the system, whereas the affect of network related outages is confined to customers in a specific part of the system. Including generation reliability in a GSL scheme should benefit customers by influencing system operation practices so that customers are effected equally by load shedding from unplanned generation outages.

4.10 The Commission also considers that the GSL scheme should include a performance indicator for the cumulative duration of all outages.

4.11 New South Wales, Queensland, Western Australia and Tasmania apply different thresholds for the frequency of outages for different feeder types e.g. CBD, urban, short rural and long rural. Queensland and Tasmania also apply different thresholds for the duration of outages.

4.12 Under the ESS Code, PWC has reported poorly performing feeders on a segmented basis, differentiating between interconnected networks (where supply can be maintained via a number of connections) and radial distribution networks where there is only a single supply path available.

4.13 The Commission considers that it is appropriate to differentiate between interconnected and radial networks. PWC Networks should publish information so that customers can identify if they are supplied through an interconnected or radial network. This information might be best presented in the form of a network map.

4.14 Finally, the Commission considers that payments under the GSL scheme should be based on a rolling 12 month period, rather than a financial year basis. The Commission considers that basing the GSL on a financial year could result in situation where customers could experience 12 months of very poor performance occurs across a calendar year, and not receive a GSL payment.

4.15 For each of the performance indicators proposed for inclusion in the GSL scheme, the Commission has adopted performance thresholds and payments proposed by PWC, or that are consistent with the thresholds and payments set through GSL schemes in place elsewhere in Australia.

4.16 However, the Commission foreshadows that these thresholds and payments will be revisited regularly as part of the five yearly network price determination process. In particular, the Commission considers that the performance thresholds may be revised once better information is available about service performance, and to recognise any changes to standards of service arrangements.

4.17 The Commission recommends that the following reliability performance indicators, thresholds and payment amounts be included in a GSL scheme.

Table 4.2: Proposed reliability of supply performance indicators, thresholds and payment amounts

Performance measure	Threshold	Payment Amount
Frequency of outages	Interconnected networks: More than 12 outages in a 12 month period. Radial networks: More than 16 outages in a 12 month period.	\$80.00 \$80.00
Duration of a single outage	More than 12 hours and less that 20 hours. More than 20 hours.	\$80.00 per event \$125.00 per event to a maximum of \$300.00 per annum
Cumulative duration of outages	More than 20 hours in a 12 month period.	\$125.00

Customer service measures

4.18 The Issues Paper sought comment on what customer service measures should be included in a possible Territory GSL scheme and what payment amounts and thresholds might apply (Q2).

Views in submissions

4.19 PWC proposed three customer service measures for network reliability:

- notification of planned outages;
- late connection for supply, with two thresholds for late connection based on the type of connection required; and
- responding to written enquiries.

4.20 PWC's proposed indicators, thresholds and payments are shown in table 4.3.

Table 4.3: PWC proposed customer service performance measures, thresholds and payment amounts

Performance measure	Threshold	Payment Amount
Failure to establish a new connection within a specified time.	Within 24 hours to an existing property. Within 5 business days to a property in a new urban subdivision.	\$50.00 per day late, up to a maximum of \$300.00
Failure to give sufficient notice of planned outages.	At least 4 business days notice.	\$50.00
Failure to respond to a (network related) written enquiry.	Within 2 weeks of receipt.	\$80.00

Commission's draft decision

4.21 The Commission recommends that the indicators, thresholds and payment amounts proposed by PWC for customer service measures be included in a Territory GSL scheme with one addition.

4.22 The Commission considers that dealing promptly with written enquiries is important to customers. However, a further indicator of customer service performance included in GSL schemes elsewhere in Australia is whether a DNSP arrives on time for scheduled appointments. As such, the Commission recommends that this measure also be included.

4.23 Again, the Commission has based the proposed performance thresholds and payments on those suggested by PWC, and those set through GSL schemes in place elsewhere in Australia.

Table 4.4: Proposed customer service performance indicators, thresholds and payment amounts

Performance measure	Threshold	Payment Amount
Failure to establish a new connection within a specified time.	Within 24 hours to an existing property. Within 5 business days to a property in a new urban subdivision.	$50.00 per day late, up to a maximum of $300.00
Failure to give sufficient notice of planned outages.	At least 4 business days notice.	$50.00
Failure to keep a (network related) appointment on time.	Within 30 minutes of agreed time.	$20.00
Failure to respond to a (network related) written enquiry within a specified time.	Within 2 weeks of receipt.	$80.00

Customers eligible for a GSL payment

4.24 The Issues Paper sought comment on whether scheme should apply only to small customers and how small customers should be defined (Q3), whether it should be restricted to regulated networks (Q4) and whether there should be distinctions between customer groups or regions (Q5).

4.25 Only PWC made specific comment and recommended a 160 MWh threshold for customers in the market systems, with no other distinction between customer groups or regions. PWC proposed the 160 MWh threshold on the basis that these 'smaller customers' are not in a position to negotiate variable service levels through individual contracts.

4.26 The Commission notes that currently only customers who use more than 750 MWh of electricity a year negotiate individual contracts with PWC. Customers using less than 750 MWh a year, who became contestable from 1 April 2010 and are still protected by grace period arrangements, remain on PWC's standard contract and tariffs set by the Territory Government.

4.27 Nonetheless, annual consumption of up to 160 MWh a year is the generally accepted threshold adopted in Australia for identifying small customers.

4.28 PWC also submitted that the GSL scheme should be restricted to customers in the market systems (on regulated networks) in line with customer service incentive schemes operating in other jurisdictions.

Commission's draft decision

4.29 The Commission recommends that small customers be defined as those customers using less than 160 MWh of electricity a year, and that a GSL scheme should be open to these customers only.

4.30 The Commission considers that the focus of a GSL scheme should be to avoid poor service performance for domestic and small customers, as larger businesses are able to manage risks through contractual or other arrangements e.g. insurance.

4.31 The Commission noted that extending a GSL scheme beyond the market systems and regulated networks would raise practical issues as the market systems are the only areas where PWC currently collects useable data. The majority of customers are located in the market systems.

4.32 In addition, the Commission currently has limited jurisdiction over service provision in the electricity systems and networks in regional and remote areas.

4.33 Although consideration may be given to extending a GSL scheme in future, at this time the Commission recommends that a Territory GSL scheme should only apply to customers in the market systems.

4.34 The Commission also recommends that thresholds and payments will be the same across the three market systems – Darwin-Katherine, Alice Springs and Tennant Creek.

Events when GSL payments are not made

4.35 The Issues Paper sought comment on whether there should excluded events and how these should be determined (Q7).

4.36 PWC provided a list of events and supply interruptions that it considered should be excluded from a GSL scheme:

- 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 Territory where these can be caused by airborne vegetation during storms and bats.
- those events which are deemed to be outside the control of the service provider 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.
- Multiple contingency events, for example where 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 AER, it would be inefficient to operate the power system to cope with such non-credible events, nor would the additional investment in generation or networks necessarily avoid such interruptions.

- an interruption resulting from a direction from the Power System Controller exercising any function or power under any applicable legislation or code.
- an interruption resulting from a direction by a police officer or other 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.

Commission's draft decision

4.37 The Commission recommends that supply interruptions be excluded for the purpose of GSL payments on the following basis:

- supply interruptions due to planned outages, where at least four business days notice has been given of the planned outage.
- momentary interruptions of less than one minute.
- events that are outside the reasonable control of the service provider, such as traffic accidents and vandalism, and natural events that affect more than five per cent of customers in a service area.

  The service provider must apply in writing to the Commission, within 30 business days of the event occurring identifying:

  a) the relevant event;

  b) the impact of the event on the service provider's reliability performance;

  c) the proposed extent of the exclusion; and

  d) reasons explaining why the Commission should consider the event as an exclusion.
- an interruption resulting from System Control exercising any function or power under any applicable legislation or code.
- an interruption resulting from a direction by a police officer or other 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.

4.38 PWC recommends that the exclusion of the effect of severe interruptions should continue to be allowed using the exclusion method approved under the ESS Code. The ESS Code uses the 2.5 Beta method to identify the effect of statistical outliers for reporting purposes. This method does not remove the effect of these events, but rather allows reporting on an unadjusted and adjusted basis so that these events can be analysed separately to make internal comparisons possible. Adjusted data can be used for both internal and external goal setting, while unadjusted data provides information about the service provider's performance during major events.

4.39 In the Commission's view, while the 2.5 Beta method is appropriate in a performance monitoring context to determine the underlying performance trends, but is not appropriate for use in a GSL scheme.

4.40 Of more importance is not whether a particular event is a statistical outlier, but rather whether it was outside the control of the service provider. The Commission also considers that whether or not an event is outside the control of the service provider should not be determined by the service provider themselves, but rather by an independent party.

4.41 The Commission accepted most of the situations or events proposed by PWC to be excluded events for the purpose of a GSL scheme. However, the Commission does not consider that the following events should be excluded events:

- multiple contingency events; and
- natural events such as cyclones, severe storms, fire and flood, except where these events affect more than five per cent of the customers in a particular region.

4.42 After taking into account service performance to date and system design factors, the Commission is not convinced that multiple contingency events should be considered non-credible events in the Territory, and therefore excluded events.

4.43 The Commission notes that the Darwin-Katherine system black on 30 January 2010 would potentially be classed as a multiple contingency event as loss of both 132 kV lines to Channel Island power station, causing the consequential loss of generation at both Channel Island and Weddell power stations. This event may therefore be excluded for the purposes of GSL payments.

4.44 The Commission considers that system design and operating practices in the Territory could mean that multiple contingency events are a credible event. As such, excluding these events from a GSL scheme removes an incentive for PWC to invest appropriately to ensure customers are not affected by simultaneous and multiple failures of system assets.

4.45 The Commission also notes that natural events are foreseeable, and that mitigating the frequency and duration of outages due to natural events is within the scope of a service providers capital and maintenance program. However, the Commission also notes that some natural events can be of a scale that mitigation is not commercially feasible.

4.46 The Commission has taken guidance from the approach adopted in Queensland for determining if outages should be excluded for the purposes of a GSL scheme and payments. Performance reporting arrangements in Queensland allow Ergon Energy (a DNSP serving areas of Queensland outside the Brisbane region) to exclude interruptions where at least five per cent of customers in the area are affected by storm, flooding or other natural disaster,[10] or from 2005-06, to exclude the effect of severe interruptions to supply using the 2.5 beta method.[11]

4.47 The Commission notes that defining an event as an excluded event if more than five per cent of customers in a service area is generally equivalent to using the 2.5 Beta method.

Source of funding of GSL payments

4.48 The Issues Paper sought comment on the source of funding of GSL payments (Q8). Only PWC made specific comment on this matter.

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[10] Queensland Competition Authority, October 2001, Electricity Distribution: Service Quality Reporting Guidelines v1.1, section 2.2.

[11] Queensland Competition Authority, August 2005, Electricity Distribution: Service Quality Reporting Guidelines v2, section 2.2.

4.49 PWC indicated any GSL payments should be funded through an allowance in regulated network revenues, but that a GSL scheme implemented prior to the start of the next network price determination would need to be funded from PWC's profits.

Commission's draft decision

4.50 Generally GSL payments represent a minor financial cost on a business relative to overall operating and capital costs. However, the payments may have a significant symbolic value to customers and the service provider.

4.51 GSL schemes in place elsewhere in Australia are generally funded as an operating cost of the DNSP. This is done through an ex ante assessment of likely costs by the regulator when setting the revenue or price cap. The cost of these schemes is therefore borne by customers through higher network charges.

4.52 The current network price determination is in place until 1 July 2014, and the introduction of a GSL scheme is unlikely to trigger reopening or off ramp provisions requiring reassessment of regulated revenue requirements. As such, any GSL payments made until 1 July 2014 would come out of PWC Networks profits.

4.53 The Commission could consider if an allowance for GSL payments should be made when assessing the regulated revenue requirement of PWC Networks for the 2014-15 to 2018-19 regulatory period.

4.54 Any GSL payments that might be made by a generator would come from the businesses' revenues. However, as these revenues are not regulated, there is no mechanism in place at this stage to prevent these costs being passed on to customers.

How GSL payments are made

4.55 The Issues paper sought comment on whether how GSL payments should be made to customers (Q9).

4.56 PWC submitted that GSL payments should be initiated by way of a claim made by the customer and that GSL payments should be made as a credit to the customer's account, with payment made in another form (e.g. a cheque) only if the account has ceased. PWC advised that these provisions would be included in PWC's Customer Contract

4.57 PWC also noted that:

- only one payment should be made per electricity account for each event regardless of the number account holders or premises listed on the account affected by the event;
- annual payment caps should apply per electricity account holder over a financial year period; and
- a cap linked to PWC Networks regulated revenue be applied to the GSL scheme.

4.58 PWC advised that an upgrade to the Retail Management System is underway, and should be completed by June 2011. PWC considers that implementation of a GSL scheme after June 2011 would give sufficient time for the necessary enhancements to cater for a GSL scheme to be included in the system upgrade.

Commission's draft decision

4.59 The Commission recommends that payment be made automatically by PWC via rebate on the next bill, or in another form agreed between PWC and the recipient if they are no longer a customer of PWC and will not receive a future bill.

4.60 In Australia, automatic payment arrangements apply in Victoria, Queensland, South Australia and Tasmania. In New South Wales, customers must apply for payments relating to network reliability, but payments relating to customer service measures are made automatically.

4.61 The reasons for adopting an automatic payment system include:

- requiring a customer to claim a GSL payment increases the inconvenience to customers of poor service performance. The increased effort and potential lack of knowledge that a GSL payment is deserved may act as a disincentive for customers to make a claim.
- automatic payment should reduce the administrative burden of the GSL scheme, as there is no need to determine the percentage of eligible customers who will make a claim; and
- automatic payment allows for more varied and targeted performance indicators to be included in the GSL scheme. More complex arrangements increase the chance that customers will not know their rights and consequently not claim.

4.62 The Commission understands that data on outages experienced on individual feeders and by individual customers is not completely reliable due to network operation practices. However, the Commission also understands that the network operating practices adopted by PWC Networks are similar to practices of DNSPs across Australia, and that this has not prevented automatic payments.

4.63 Customers will have the ability to claim a payment if they consider they have experienced service performance that warrants a GSL payment. The Commission considers that any payment errors made in favour of customers, should be at the cost of PWC, and that any payment errors made in the favour PWC to the detriment of customer, must be corrected as soon as identified.

CHAPTER 5

Design of a financial incentive scheme

Improving average service performance

5.1 Financial incentive schemes are intended to provide incentives to improve the performance of the system or network.

5.2 The Commission indicated in the 2009 network price determination that a paper trial financial incentive scheme would be run for the 2009-10 to 2013-14 regulatory period to provide information on the costs and benefits of implementing such a scheme in the future.

5.3 To support that paper trial, the Commission will be undertaking an audit of PWC's service performance data to provide more certainty about the quality of historical data and data collection systems and processes.

5.4 Although the NTMEU expressed support for the Victorian or South Australian model, the Commission notes that following the AER's recent determinations, South Australian DNSPs will be subject to the national (AER) financial incentive scheme.

5.5 Further, the AER scheme will likely apply to Victorian DNSPs. This is because the AER has discretion in the form of the financial incentive scheme, while be guided by any service targets set by jurisdictions.

5.6 The Commission's view is that the most appropriate model to adopt for a paper trial of a financial incentive scheme is the methodology used by the AER service target performance incentive scheme.

5.7 Table 5.1 compares the performance indicators used in the AER financial incentive scheme, and the performance indicators reporting by PWC.

Table 5.1: AER service performance indicators and PWC reporting capability[12]

AER performance measure	PWC historic reporting
Unplanned SAIDI	Total planned and unplanned SAIDI on a regional basis for regulatory reporting. Unplanned data for internal and shareholder reporting.
Unplanned SAIFI	Total planned and unplanned SAIFI on a regional for regulatory reporting. Unplanned data for internal and shareholder reporting.
MAIFI	Does not report. Has previously indicated that PWC does not have system capability to collect this data.
Telephone answering	Number and % of calls responded to within 20 seconds of when the customer selects to speak to a human operator on a Territory-wide basis.
Streetlight repair	Does not report for regulatory purposes. May collect data for internal purposes.
New connections	% of new connections made within specified time for regulatory reporting on a Territory-wide basis.
Response to written enquiries	Does not report for regulatory purposes.

5.8 The AER determinations for Queensland and South Australian DNSPs established a financial incentive scheme with SAIDI and SAIFI reliability performance measures and the telephone answering customer service performance measure.

5.9 The Commission proposes the following approach for the paper trial of a financial incentive scheme:

- the paper trial scheme will be symmetric, involving penalties and rewards;
- the paper trial will determine the financial incentive based on a single performance indicator – SAIDI;
- the paper trial will be based on one region only (Territory-wide), rather than having separate targets for different regions;

[12] System average interruption duration index (SAIDI) – is the average number of minutes that a customer is without supply each year. System average interruption frequency index (SAIFI) – is the average number of times a customer's supply is interrupted each year.

- the performance target will be the actual SAIDI averaged over the previous 5 years performance. This is intended to encourage continuing improvement over time;
- The incentive rate will be based on the AER's 'value of customer reliability' for non-CBD segments of $47 850/MWh adjusted by CPI from the September quarter 2008 to the start of the relevant regulatory period;

5.10 To avoid any doubt, the Commission will adopt the methodology and approach of the AER service target performance incentive scheme for the paper trial.

CHAPTER 6

Implementation considerations

Legislative head of power

6.1 The Commission has the power, under the *Electricity Network (Third Party Access) Act* and Code, to incorporate a financial incentive (s-factor) scheme into the price control mechanism applying to PWC's regulated electricity network operations.

6.2 Specifically, the Commission may:[13]

In setting a revenue or price cap, the regulator must take into account the revenue requirements of the network provider during the relevant financial year or years having regard to –

…

(b) the service standards applicable to the network provider under this Code and any other standards imposed on the network provider by any regulatory regime administered by the regulator and by agreement with the relevant network users;

6.3 However, the Commission does not have an appropriate legislative authority to implement a GSL scheme.

6.4 By their nature, GSL schemes require an explicit legislative basis. For example:

- in New South Wales, the GSL scheme is imposed through design reliability and performance licence conditions determined by the Minister for Energy and Utilities;
- in Victoria, the GSL scheme is imposed by the Electricity Distribution Code (2007);
- in Queensland, the GSL scheme is imposed by the Queensland Electricity Industry Code (2008), made under the *Electricity Act 1994*;
- in Western Australia, the GSL scheme is imposed by the Electricity Industry (Network Quality and Reliability of Supply) Code (2005) established by the Minister for Energy under the *Electricity Industry Act 2004*;
- in South Australia, the GSL scheme is imposed by the standard connection and supply contract between customers and the DNSP under the *South Australian Electricity Act 1996*, and
- in the ACT, the GSL scheme is imposed by the Consumer Protection Code (2007).

6.5 The Commission does not consider that it has the powers to impose such a scheme via licence conditions. Particularly as a GSL scheme involves financial costs to service providers, and potentially customers.

[13] Electricity Networks (Third Party Access) Code, cl.68.

6.6 The Commission considers that implementation of a GSL scheme in the Territory requires introduction of regulations. The Commission will seek legal advice on the scope of legislative change needed to support the introduction of a GSL scheme.

6.7 The Commission will provide more detailed implementation plans for the Final Report.