

**Providing Incentives
for Service Quality
in NSW Electricity
Distribution**

**Submission to the
Independent Pricing and
Regulatory Tribunal**

20 June 2003

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1 Summary

This submission has been prepared by Integral Energy in response to the Independent Pricing and Regulatory Tribunal's issues paper, *Providing Incentives for Service Quality in NSW Electricity Distribution*, issued May 2003. The paper seeks input from stakeholders on the positions put forward by DNSPs to date, and on any further issues to be considered as part of a service quality incentive scheme.

As noted in Integral's 2004 Electricity Network Review Submission (the 2004 Network Submission), Integral supports the principle of establishing a link between price and quality of service. Integral believes that it is important that distributors understand customer requirements, to enable delivery of appropriate levels of service for which customers are willing to pay.

However, Integral believes that there are significant risks in applying financial incentives at this point in time, given the current data availability and accuracy limitations noted by PB Associates. These limitations have also been acknowledged by the Tribunal in its issues paper. In addition, Integral believes that adoption of a scheme prior to achieving a full understanding of the data gives rise to a risk of creating perverse incentives and a later need for significant changes to the scheme.

Integral therefore restates its position that any service standard incentive framework should initially be implemented as a paper trial. A paper trial is essential to the development of a credible and robust service quality mechanism as it enables the processes and systems supporting the mechanism to be tested, and also provides a means for scrutinising the measures, targets and other parameters of the framework before placing revenue at risk.

A meaningful paper trial that would facilitate the later introduction of financial incentives needs to address each of the strategic design issues set out below. The scheme should

- have the objective of strengthening the link between service quality outcomes and the levels of service for which customers are willing to pay;
- take account of customer preferences in creating incentives, including those derived from recent work undertaken for Integral by KPMG, as well as other NSW specific data;
- support Integral's reliability strategy as put forward in the 2004 Network Submission;
- incorporate clear and unambiguous definitions for service level measures and exclusions;
- include a good quality system of data collection, monitoring and publication that supports independent review by the Tribunal (and facilitates "name and shame" if Integral fails to meet its targets)
- recognise the existing incentives for service level improvement in the form of reporting and publication of data via the NSW Ministry of Utilities and Energy framework;
- allow for individual targets for each DNSP, while applying the principles to all;

- cap the maximum benefit or penalty which applied by the scheme to an amount which is significant, but does not place undue risk on the financial viability of DNSPs. This will also have the effect of limiting the incentive for over achieving the targets set and therefore delivering service levels which customers are not willing to pay for;
- be symmetrical in its application;
- calculate and apply incentives on an annual basis.

In addition, there should be flexibility for the Tribunal or the DNSP to undertake a review and seek to modify the detailed scheme if new information emerges that indicates that any particular group of customers are dissatisfied with quality of service, or if significant changes in key measures become evident due to improvements in data quality.

Due to the developing nature of the service standards incentive framework in NSW, Integral has responded to the Tribunal's issues paper at the principle level. It is important that further, more detailed collaborative consideration is given to the framework. Integral believes that IPART and the DNSPs should work closely to define the key parameters both before and after the Draft Determination that is due to be released in November 2003.

2 Introduction

As part of the 2004 Electricity Network Pricing Review currently being undertaken by the Independent Pricing and Regulatory Tribunal (the Tribunal), the Tribunal has put forward a view that it would be desirable to explicitly incorporate incentives for efficient levels of service quality into the regulation of network prices. In November 2002 the Tribunal released an issues paper reflecting this view, and in April 2003 Integral's responded with the 2004 Electricity Network Review Submission¹ (the 2004 Network Submission), which included a high-level position on service standard incentives.

In order to seek stakeholder views on the DNSP's initial proposals, and to further discuss other issues which would need to be considered if a service quality mechanism were to be introduced, in May 2003 the Tribunal issued Discussion Paper DP63, *Providing Incentives for Service Quality in NSW Electricity Distribution*.

As a licensed electricity distributor and retailer, Integral Energy has a vital interest in ensuring that any service quality incentive framework takes account of the interests of both Integral and its customers.

This submission has been developed in response to the issues raised in DP63 and as such follows the general structure of that paper.

The objectives of this paper are to:

- Set out a proposed strategic framework for the application of an S factor;
- Set out the principles that Integral considers should be used to design details of service quality scheme;
- Set out Integral's position on specific questions raised by the Tribunal; and
- Propose a way forward to further refine the scheme.

¹ Integral Energy, *2004 Electricity Network Review Submission*, 10 April 2003

3 Strategic framework

This section sets out a strategic framework for considering the issues set out in the Tribunal's paper on providing incentives for service quality in NSW electricity distribution.

3.1 Key strategic design issues

The key strategic design issues that need to be addressed in developing, testing and implementing a service quality incentive scheme are:

- Clarity about the scheme objectives, the problem to be addressed and the implied objectives for service quality incentive scheme;
- Determining the strength of the incentive;
- Timetable and approach to implementation.

As noted in Integral's 2004 Network Submission, Integral submits that a paper trial is essential to the implementation of a credible and robust service quality mechanism. A paper trial enables the processes and systems supporting the mechanism to be tested, and also provides a means for scrutinising the measures, targets and other parameters of the framework.

A meaningful paper trial that would facilitate the later introduction of financial incentives needs to address each of the strategic design issues. These issues are discussed below.

3.1.1 Scheme objectives and the service quality "problem"

The Tribunal notes its key concern is to "avoid any incentive for a natural monopolist to reduce costs at the expense of service quality when faced with financial incentives to minimise costs."

This problem needs to be considered in the context of the overall regulatory, legal and commercial framework applicable to the DNSPs and the incentives created by this existing framework.

Integral was formed under legislation that has a number of principal objectives including:

- “(a) To be a successful business and, to this end:
 - (i) to operate at least as efficiently as any comparable business, and
 - (ii) to maximise the net worth of the State's investment in the SOC, and
- (b) To exhibit a sense of social responsibility by having regard to the interests of the community in which it operates.”

As can be seen from the above statements, Integral, while having obligations to operate as a commercial business, has broader accountabilities to the community. In this context, the "name and shame" approach noted by the Tribunal is therefore likely to be an effective element of any regime.

As discussed in Integral's 2004 Network Submission, substantial additional expenditure was incurred in the latter years of the 1999 regulatory period to arrest

declining supply security standards, despite the fact that this expenditure was not provided for in the 1999 determination. Integral's profitability and returns from the business were reduced as a result of this expenditure.

Integral suggests that the overriding objective of service quality regulation should not be to avoid incentives to reduce costs at the expense of service quality. Rather (as discussed in Integral's 2004 Network Submission) it should be:

“to strengthen the link between service quality outcomes and the levels of service for which customers are willing to pay”.

This objective is more closely focused on the objective of aligning service outcomes with willingness to pay than on protecting against adverse side effects of price regulation.

Integral suggest that the key short term issue for assuring service standards are in line with customers' preferences and priorities is for the Tribunal to ensure that there is an appropriate allowance in the price determination for the costs of delivering accepted security of supply standards.

3.1.2 Strength of the service quality incentive?

The issues paper raises a number of questions about the strength of the financial incentive associated with any service quality scheme.

In economic regulation, a high-powered incentive is one that provides strong financial incentives. The corollary of a high-powered incentive is the need for a high level of rigour in the specification of the incentive mechanism (given the increased risks faced by the company, and the risk of unintended outcomes). Therefore, a high-powered incentive will lead to increased costs and complexity and increased risks of micro management by the Regulator.

A lower powered incentive will potentially require less rigour in its specification and therefore be implemented with less cost and less complexity. It is Integral's view that a lower powered incentive is more practical and appropriate in NSW.

3.1.3 Approach and timetable for implementation

Integral believes that the following issues need to be considered in making decisions about the timetable and approach to implementation:

- Sufficient development and testing time is needed to ensure robust design which leads to a credible and stable scheme. The development and testing time should be used to ensure that there are clear and unambiguous definitions for data and parameters, as well as transparent and tested analysis and decision processes.
- It is important that data used by the scheme is robust. Schemes customarily require “historic reference data”, and it is important that this data is collected for the purpose for which it intended. This implies that a lead time (associated with data) is needed before a scheme can be implemented. A scheme which referenced historic data (which was not collected for the purpose), would effectively be a “retrospectively implemented scheme”.

- The risk of perverse financial implications and outcomes should be managed through an appropriate transition from no scheme, through a paper trial period without financial impacts, to a scheme with financial incentives.
- As noted by the Tribunal and others, as data collection systems improve the apparent service quality statistics could either appear worse or improve without any real change in the underlying reliability levels. The effects of these changes on any incentive scheme must be well understood before any revenue is put at risk.

In summary, the data used in an incentive scheme must be accurate and enough time must be allowed to complete data cleansing and therefore ensure that all data is based on stable common definitions.

3.2 Detailed design issues

The effectiveness of regulatory instruments depends on the detailed design of the incentive scheme, including the choice of parameters and the values set for the parameters.

The design of the service quality scheme needs to address a range of detailed design issues. The following sections provide comments on the key detailed design issues.

3.2.1 Specific objectives for service quality regulation for Integral

As noted in section 3.1.1, Integral considers the overall objective of the service quality scheme should be to “strengthen the link between service quality outcomes and the level of service for which customers are prepared to pay.”

Integral’s Reliability Strategy and the associated targets, which are discussed in some detail in the 2004 Network Submission, takes account of customer requirements and targets expenditure in the following ways:

- Customer requirements have been considered and used to develop the areas to be targeted by the strategy. Integral’s understanding of customers’ requirements has been based on Integral’s own experience, reinforced by the recent survey of Integral customers by KPMG².
- Reliability improvement expenditure has been targeted on those areas experiencing worse than acceptable levels of reliability. That is, not just worse than average, but worse than a separately developed threshold level.
- The system level reliability targets put forward in Integral’s 2004 Network Submission have been developed by aggregating the expected impact of the targeted expenditure on local performance to determine the effect on total system performance.

Integral believes that the design of an appropriate service quality incentive arrangement should reflect the needs of Integral’s customers and therefore support the actions arising from the strategy noted above.

² KPMG Assurance and Advisory, *Integral Consumer Research into Reliability Standards*, December 2002

3.2.2 Strength of incentives for Integral

Arguably, in Integral's case, while value at risk will be a factor in influencing behaviour, general public expectations are also important.

The Board and senior management are committed to the goal of more closely aligning Integral's Network strategy with the customers requirements. Integral believes that publication and comparison of performance data would provide a strong incentive to achieve service quality targets (the "name and shame" approach). This approach is consistent with Integral's social responsibility mandate.

Integral therefore believes that, to the extent financial incentives are ultimately introduced to the service quality regime, an incentive that is "low powered" in financial terms is appropriate.

When financial incentives are ultimately introduced there should be a limit to the proportion of revenue that is exposed to the incentive scheme as either risk or reward to limit the impact of unforeseen events on the viability of the business.

Incentives should be symmetrical to both penalise performance below target levels and to reward improved performance, for example, meeting targets sooner.

The penalties or rewards should be calculated annually and, once financial incentives are adopted, applied on the same basis. This will increase the immediacy of feedback compared to reviews occurring only at regulatory resets.

3.2.3 Flexibility within the regulatory period

In addition, there should be flexibility for the Tribunal or the DNSP to undertake a review and seek to modify the detailed scheme if new information emerges that indicates that any particular group of customers are dissatisfied with the quality of service, or if significant changes in key measures become evident due to improvements in data quality.

3.3 Proposed strategic design principles and parameters

In summary, Integral proposes that the following strategic design principles and parameters be adopted as a basis for developing, testing and implementing the service quality incentive scheme:

- The service quality scheme should focus on addressing the requirements of Integral's customer at a point in time. Wherever possible, objective information including customer surveys should be used.
- To the extent a service quality scheme is introduced for the period 2004 – 2009, the scheme should provide incentives for Integral to target areas of the network where customers are not satisfied with the level of reliability. This is consistent with Integral's Network Strategy.
- Quality of service incentives for future regulatory periods should be adjusted to reflect the evolving preference and priorities of Integral's customers and the corresponding evolving ability of Integral's network and customer service initiatives to meet those needs.
- A "paper trial" should be used to test the robustness and incentive properties of the mechanism and to highlight any data definition issues. This trial should continue until all aspects of the incentive mechanism are understood and input data is well defined and accurate.
- The overall incentive mechanism should comprise a combination of:
 - A good quality system of data collection, monitoring and publication that supports independent review by the Tribunal (and facilitates "name and shame" if Integral fails to meet its service quality standards); and
 - A relatively low powered financial incentive, initially zero until data quality is improved.
- The principles of the service quality incentive should apply to all NSW DNSPs. However, there should be flexibility to meet the particular needs of each DNSP's customers and to deal with differing network conditions. An incentive mechanism will be more effective if it closely aligns with the objectives and strategy that the organisation has agreed to and is pursuing. This implies that Integral would need to work closely with the Tribunal to develop an incentive arrangement that matches its strategy.
- There should be flexibility for the Tribunal or the DNSP to undertake a review and seek to modify the detailed service quality incentive scheme if new information emerges that indicates any particular group of customers are dissatisfied with the quality of service.

4 DNSP views

The Tribunal seeks views from stakeholders on the DNSP proposals that an S factor with monetary incentives should not be introduced as part of the 2004 Network Review Determination. Views are also sought on the proposals of some DNSPs that a 'paper trial' of an S factor be conducted during the 2004 regulatory period, allowing the possibility to introduce full monetary incentives at the next review, should the paper trial be successful.

As stated in Integral's 2004 Network Submission, Integral supports the principle of establishing a link between price and quality of service. Integral believes that an appropriate service quality mechanism can provide a win for customers, regulators and distributors alike.

However, setting service quality targets is a complex matter. Consistent and comparable information is required in relation to both cost and service quality to appropriately measure the performance of the regulated businesses. PB Associates have previously raised issues with the robustness of data. Integral also notes that the NSW DNSPs currently apply different interpretations of the reliability indices and exclusions, and that these contribute to inconsistencies between DNSPs

Integral proposes that IPART introduce a paper trial in the 2004 regulatory period to ensure that incentives and measures are well understood when a full financial implementation is undertaken.

5 Alternatives for consideration

The Tribunal seeks views from stakeholders on each of the options outlined above.

In their Issues Paper, the Tribunal has outlined four alternatives for consideration with regard to the implementation of an S factor in the 2004 Network Determination. These four alternatives are:

1. Introduce an S factor with full monetary incentives, using data that is already available, and switch/expand to incorporate other data as it becomes available.
2. Introduce an S factor with reduced monetary incentives, with the possibility of increasing these incentives in the future as data improves.
3. Introduce a 'paper trial' S factor with no monetary incentives.
4. Lag the introduction of an S factor, postponing the start date until robust data is available at the level of aggregation required or until the next regulatory review.

The strategic design principles set out in section 3 highlight the need for a managed implementation and lead time for data collection. Integral does not support alternatives 1 and 2 as these options do not allow for a managed transition and rely on historic data which was not collected for the purpose of an incentive scheme. As noted elsewhere, the quality of this data has been questioned by PB Associates draft report. Integral considers that there is a risk that alternatives 1 and 2 could result in perverse incentives and/or would require significant further development and change without corresponding benefits.

Alternative 3 provides for a paper trial to test the robustness and stability of the regime. This is consistent with the principles set out in 3.2.3. Integral supports this option.

Lagging the introduction of the scheme, as in alternative 4, does not provide for a detailed design testing phase, unless a paper trial is undertaken within the "lag phase". In this case alternatives 3 and 4 are similar.

Integral would support alternative 3 which involves introducing a 'paper trial' together with publication of the results during the trial. The framework and agreed set of performance measures have yet to be defined and alternative 3 provides a pragmatic and effective option to customers, the businesses and the regulator.

The approaches applied by the Office of Gas and Electricity Markets UK (OFGEM) and the Essential Services Commission of Victoria (ESC) to developing, testing and implementing their service quality regimes both recognise the need to base any incentive scheme on robust data and parameters, even though this may delay the scheme's full financial implementation.

6 Choice of measures

6.1 Types of service quality

The Tribunal seeks comment on the choice of reliability measures for inclusion in any incentive scheme, and on whether MAIFI data should be collected, with the option to add it to any service quality incentive scheme in the future. Views are also invited on whether it would be desirable to collect data on other aspects of service quality (and if so, which aspects) so that these elements could potentially be included in future regulatory reviews.

Choice of reliability measures

Integral considers that the primary focus of the service quality regime should be on reliability.

SAIDI, SAIFI and CAIDI are established, well understood reliability measures despite differences in interpretation between DNSPs, and are appropriate for use in a service quality regime, subject to the following qualifications:

- The three measures are interrelated; if targets were applied for each it would result in multiple contribution to the overall performance for effectively the same event. This relationship must be taken into account when setting the contribution to the overall performance from each.
- Integral believe that certain events which are outside the DNSP's control, or which can not reasonably be mitigated, must be excluded from the figures used for calculation of any performance measures. These are discussed further in section 6.5 on Excludable Events.
- Definitions and their application are not always fully aligned between different DNSPs. It is vital that uniform and unambiguous definitions are established and applied.
- As noted in PB Associates report into NSW DNSPs' reliability measurement systems³, the data systems to support these indices require further development before they could be considered robust enough for use as the basis for application of incentives.
- Historic performance levels are a key input to any service level incentive scheme. Data systems and definitions should be established as early as possible and the imposition of financial incentives delayed until enough "historic" data is collected under those arrangements to allow meaningful target setting (3-5 years).

While Integral believes that MAIFI can provide useful information about interruptions seen by customers in some cases, we do not believe that it should form part of a service quality incentive scheme for the following reasons:

- The definition for MAIFI and its application is not standard across all distributors.
- Integral believes that the contribution to MAIFI for a significant part of the network is not currently recorded. While Integral would be able to commence collection of MAIFI data for those sections of the High Voltage feeder network controlled by

³ PB Associates, *Review of NSW Distribution Network Service Provider's Measurement and Reporting of Network Reliability*, Draft, Sep 2002

circuit breakers, this would not be the case for those sections supplied from field reclosers. There are approximately 1100 zone substation feeder circuit breakers and 250 field reclosers, so 19% of MAIFI incidents could be undetected on a pro-rata basis. This inaccuracy is made more significant by the fact that by the nature of their installation and operation, the sections of the network supplied by reclosers will typically contribute more heavily to MAIFI than those supplied from zone substations.

- PB Associates also noted in their Draft Report of September 2002 (p35) that:

“the implementation of complete automation and information reporting from the 250 Integral Energy reclosers will require a considerable expense...”

Other Aspects of Service Quality

Quality of Supply

Integral does not believe that quality of supply, or the measurement of voltage fluctuations and power system harmonics, across the board is a suitable measure for inclusion in an S factor framework as supply quality issues can be quite localised in nature and arise as an interaction between the DNSP's network and a customer's installation and equipment. Consequently, they can occur in quite a restricted area and may not impact on the majority of customers within that area. In addition, the equipment to measure this type of event is not widespread within Integral's network (compared to SCADA which logs reliability related events for every HV feeder) so it would be more difficult to measure power quality events.

PB Associates support this position in their Draft Report (p15):

“PB Associates would not consider it feasible for a distributor to monitor customer power quality across a network, and unlike loss of supply, most customer(s) are not in a position to accurately know when power quality is outside defined levels. For this reason the true measure of unsatisfactory network power quality can not be ascertained.”

Customer Service

Integral considers that the customer service aspects of service quality are best addressed by either licence conditions or Guaranteed Customer Service Standards and therefore should not form part of any S factor. This approach is consistent with the position put forward in Integral's submission to the Tribunal as part of the Review of Guaranteed Customer Service Standards and Operating Statistics, dated 23 May 2003.

6.2 Customer preferences and priorities

The Tribunal seeks views on the ways in which customer preferences and priorities can best be reflected in any service quality incentive mechanism introduced.

Integral agrees with the view that customer preferences and priorities should be reflected in any service quality mechanism that is introduced.

The use of recent customer surveys such as those undertaken by Aurora in Tasmania and the study by Essential Services Commission of South Australia

(ESCOSA) would be of some benefit in informing IPART as to those aspects of service that customers value. However, Integral believes that surveys of NSW customers should be used first, to confirm the results from other surveys and also to determine the value of the various aspects of customer service to NSW customers.

As detailed in Integral's 2004 Network Submission (p75), Integral engaged KPMG to carry out a consumer research project to further understand customer's requirements for reliability performance. The survey found that customers in Integral's network area are generally satisfied with the current reliability service standards but that in certain areas, performance is below customer expectations.

The survey did not test customers' willingness to pay for improved service standards but did test their willingness to trade for improved reliability. The survey established threshold levels for reliability which were considered in Integral's reliability strategy under the "Base Case" submission. As the projects to address those situations where reliability exceeds the thresholds will take time to implement and their effect will be more longer term than short term, Integral believes that it is not appropriate to use these specific thresholds in any S factor scheme. However, the aggregate reliability forecasts put forward in Integral's submission incorporate the impact of the projects and Integral believe that this establishes a link between those aggregate service quality measures and customer requirements.

6.3 Data quality and availability: creating incentives for improvements

The Tribunal seeks comment on the most appropriate options for creating incentives for the delivery of data quality improvements.

Integral believes that there are a number of factors which already provide incentives for delivery of data quality improvements.

As stated in Integral's 2004 Network Submission, Integral is committed to a strategy that supports the vision that "Customers in Integral's region should, on average, receive comparable service standards to customers in like situations within Australia". Integral's Board has endorsed the vision and supporting strategy, as well as taking an active interest in their development. Improvements to reliability data and reporting, through the implementation of IAIMS (Integrated Asset Information Management Strategy), are a key component of the strategy, as noted in Chapters 3, 6 and 7 of Integral's 2004 Network Submission and as such, are the focus of significant organisational commitment.

These improvements are driven by a need to better understand both the service levels being experienced by customers and to develop appropriate network solutions. In addition, the improvements will allow Integral to better understand the impact on customers of other activities such as maintenance, asset renewal and investment for growth.

In addition, Integral's electricity distribution licence obligations require us to report on a number of aspects of service quality, in particular reliability. The level of detail required for this reporting is increasing which, in turn, requires improved data collection processes and hence improved data quality and availability.

⁴ Integral Energy, 2004 Electricity Network Review Submission, 10 April 2003, p75

Therefore, Integral considers that no additional incentives for improvements in data quality are required.

6.4 Arrangements for audit

As noted in the Tribunal's Service Quality issues paper, reliability data currently reported to the MEU is subject to independent appraisal. Integral expects that the audits of the reporting systems that IPART is proposing to conduct within the licence review process will confirm the validity of the MEU process. Integral considers that this overall framework is adequate, subject to any changes to the guidelines to accommodate the S factor framework and any changes to measures arising as a result of this review.

Given the resources and costs involved in undertaking an audit, Integral submits that data audits should not be undertaken more often than annually.

6.5 Excludable events

The Tribunal seeks comment on whether certain events should be excluded from data used in any service quality incentive regime, and if so, what criteria for exclusion would be most appropriate. Comments are also sought on alternative ways to address the impact of exogenous events, including the possibility of having caps on the proportion of revenue that can be exposed to any service quality incentive scheme.

Exclusion of Events

Integral would support the exclusion of events that are not within the control of the distributor.

There are many circumstances that can affect reliability that are beyond the control of a DNSP. Uncontrollable events can include:

- Force majeure events, for example natural disasters, severe storms;
- Interruptions due to events in the transmission network;
- Interruptions due to the failure of customer's equipment;
- Directed load shedding events;
- Interruptions due to events associated with generation either at the transmission level or the distribution level.

As a starting point Integral would support the current exclusions in terms of the Steering Committee on National Regulatory Reporting Requirements (SCNRRR) reporting for reliability, as recommended by the NSW MEU in their reporting guidelines.

Integral notes, however, that there is currently some variation in how the SCNRRR definition is applied between NSW DNSPs. Therefore it may be necessary to clarify the application of the definition in order to ensure consistent data between DNSPs. Further, given that the historical data for each DNSP will be based on the current definition being applied, any variation in the application of the definition would invalidate the historic data. In that event it would possibly become necessary to collect new data based on the agreed definitions prior to setting targets.

The exclusion of any events must be unambiguous in its application. The process should not be administratively burdensome on any party. On this basis, Integral believes that clear definitions should be established so that it is not necessary to make application to the regulator for a decision on exclusion.

Integral would not support a process similar to that currently in place in Victoria between the ESC and the DNSPs with regard to exclusions of events. This process appears to be protracted and to consume significant resources, both of the ESC and the DNSPs, and which also introduces considerable delays to the decision making process. Integral believes that such an approach would fail the requirement that the total costs of administration should not outweigh the benefits.

Integral also notes that there may be events which would be foreseeable and which may be preventable, but not at an acceptable cost to the community and customer base. For example, wholesale undergrounding of the network would mitigate against major storms, however recent work by IPART and the MEU have indicated that the cost of undergrounding would be in excess of that which the community is prepared to pay. Integral believes that any S factor framework should not penalise DNSPs by disallowing the exclusion of events of such a nature.

Use of Deadbands

Integral supports the application of deadbands to incentive measurements in recognition of the fact that there is some degree of natural variability in the quantities being measured. The use of deadbands is discussed further later in this submission.

Proportion of Revenue Exposed to the Incentive Scheme

As noted elsewhere, Integral believes that any service quality incentive scheme should be operated as a paper trial, at least until the documented data quality issues are addressed. As such we believe that no revenue should initially be exposed.

At a later date when financial impacts are included, Integral believe that these should be capped at a level which represents a meaningful incentive but which does not pose an unacceptable risk to the DNSP. These caps would initially be set at agreed low levels.

7 Mechanisms

7.1 Creating incentives via service quality expenditure schemes

The Tribunal seeks views on the scope for creating incentives for service quality through its monitoring of service quality expenditure schemes. The Tribunal notes its commitment to avoiding micro-management of the DNSPs, and comments should be made within this context.

As outlined previously Integral's proposal is to develop a service quality incentive mechanism that complements Integral's network strategy and the service quality expenditure scheme detailed in Integral's 2004 Network Submission to the Tribunal.

Integral consider that the objectives of the mechanism should be focussed on ensuring service quality outcomes consistent with customers' willingness to pay. As such, the mechanism should focus on outcomes rather than inputs. Consistent with the principles of good regulation, decisions on expenditure inputs should be the responsibility of management. This is consistent with the Tribunal's objectives to avoid micro management and the views expressed by the Tribunal that any allowed expenditure is not a directive to the DNSP on how much, when, and on what it should make such expenditure. Given these views, Integral believes it would be impractical for the Tribunal to seek to claw back allowed expenditure at the next review if the investments put forward in the submissions are not made.

7.2 Data collection/monitoring/publication

The Tribunal seeks views on the extent to which incentives for service quality can be created through the collection and publication of performance data.

Incentives for service quality are created through the collection and publication of performance data. Public reporting of key reliability performance statistics by DNSPs is already part of the licence compliance reporting system in place in NSW. This reporting already provides an incentive to Integral to maintain service quality and would form a good basis for a service standards incentive scheme.

7.3 S factor

7.3.1 What form should the S factor take?

The Tribunal seeks comment on the form that the S factor should take, and on the extent to which features of the S factors discussed above are applicable in the NSW context. Comments are also sought on any alternative forms that the S factor might take.

Integral considers that there is a cascade of decisions and analysis required on the implementation of an S factor. Integral has proposed a strategic framework for these decisions; the first decision relates to the objectives of the mechanism. In section 3, Integral has proposed an objective which in turn establishes a number of criteria or constraints for more detailed decisions.

Integral considers that the S factor details should be developed drawing on the principles put forward by Integral, international experience, and experience in other jurisdictions, but that the details of the scheme need to reflect the particular

circumstances and environment applying to NSW distributors over the 2004 regulatory period. In the case of Integral, this work should be structured so as to create incentives to deliver on the strategy put forward in Integral's 2004 Network Submission.

Integral proposes to work with the Secretariat to develop the details of the scheme.

7.3.2 Should mechanisms be symmetric?

The Tribunal seeks views on whether any mechanism adopted should reward as well as penalise companies depending on service quality performance, and if so, should the incentive rates for rewards be of the same magnitude as the incentive rates for penalties?

Integral is proposing a scheme whereby the mechanism is symmetric, that is, the mechanism should reward Integral for exceeding targets but penalise Integral if it does not meet targets. During a paper trial it would be possible to test different rates of reward and penalties, but should the Tribunal wish to implement financial incentives within the 2004 regulatory period, the rates for penalties and incentives should be the same.

7.3.3 When should price adjustments be made?

The Tribunal seeks views on the relative advantages of a system that provides incentives for companies to meet/exceed service quality targets in every year of the control period, as opposed to for the period as a whole. Views are sought as to whether applying monetary penalties on an annual, as opposed to five-yearly basis would further strengthen these incentives.

Integral believes that it is more likely that customers will expect unsatisfactory performance to be improved as soon as possible and the incentive framework should encourage such actions. Integral suggests that the timing of price adjustments should be on an annual basis.

7.3.4 Use of dead bands

The Tribunal seeks views on whether the incentive and complexity disadvantages of deadbands exceed the advantages.

Integral considers that it would be appropriate to use dead bands around performance targets. Reliability measurement involves measurement error and includes some random (year to year) error. It would not be appropriate for a DNSP to be rewarded or punished for small differences in performance that reflect data inaccuracies. It would also be inefficient to be encouraging efforts to manage inside the boundaries of measurement error and normal random fluctuations.

Dead bands could be used to provide an incentive to the DNSPs to improve the accuracy of their data. A series of graduated dead bands could be used which would allow for the improvement in data across the regulatory period.

In response to the Tribunal's assertion that deadbands introduce distortions to incentives, Integral believes that, provided the dead bands are set at the boundaries of measurement error, they will have no distortion effect as DNSPs would not have

any incentives for improvement beyond measurement error and would not be capable of measuring any improvements beyond measurement error.

Integral would submit that provided the reliability outcomes are within a reasonable range of the specified target, then this should be consistent with a range and measurement error for customer preferences.

8 Target-Setting

8.1 Alternative approaches to target-setting

The Tribunal seeks views on the most appropriate approach to target-setting, and particularly on the following:

- Do the pros and cons of alternative approaches to target setting detailed above suggest that the most appropriate approach might involve a combination of information sources?*
- Do the fact that companies operate in significantly different operating environments mean that company-specific, rather than relative targets are appropriate for NSW DNSPs, particularly with current information levels?*

Integral, as part of the 2004 Network Submission, has proposed a series of targets for reliability improvement under the base case service standard scenario. This improvement in reliability will be achieved by targeting improvements on the worst performing feeders within Integral's distribution area.

These targets are company specific and have been developed based on historic performance and an assessment of the impact of the capital and operating expenditure proposed in the submission. The targets are also reflective of the long-term nature of any capital expenditure aimed at addressing reliability issues. Essentially, it will take a number of years for any real improvements to be achieved.

Integral submits that company specific targets should be used. The use of company specific targets is appropriate given that each of the DNSPs have developed their own price and service quality offerings which should reflect their individual needs and the requirements of their customers.

Integral does not support the use of comparative measures such as average industry performance for setting service-standard incentive scheme targets. In Integral's view the complexities of this approach, such as making allowance for different company's operating environments and the need to validate any normalisation process, make such an approach difficult to implement.

It is important, however, that a common overall framework be developed that is consistent with the agreed definitions and interpretation of the data.

8.2 How ambitious should targets be?

The Tribunal seeks views on what the appropriate levels for targets should be, and whether/how these should move during the regulatory period. Views are also sought on ways in which any disincentives to conduct maintenance and improvement work can be avoided.

Targets for the end of the 2004 regulatory period should be set should be based on customer expectations/willingness to pay. Setting targets beyond these levels will be inefficient and would result in unnecessary expenditure by the DNSP.

The rate at which DNSPs move towards the final targets will need to be assessed on an individual DNSP basis as each business would be moving from a different base and should have individual targets. A suitable incentive scheme may include benefits to the DNSP for achieving the targets earlier.

It should also be recognised that it is not a simple matter to improve such targets in a short time frame. Quite often it will take a substantial amount of capital and operating expenditure over a number of years to achieve relatively small improvements.

9 Penalty/Reward Setting

The Tribunal invites comment on the appropriate basis for the setting of any penalties and rewards. In particular, views are sought on the attractiveness of having a percentage cap on the amount of revenue exposed to any penalties/rewards, and if such a cap is favoured, views on the appropriate size (especially given current data robustness).

9.1.1 The basis for penalty/reward setting

In the longer term, Integral would favour the use of customer willingness to pay as the basis of setting any penalty or reward. Integral recognises the difficulties associated with this process, as noted in section 7.1.1 of the Tribunal's issues paper. To date, only a limited number surveys have been carried out in this area and additional research would be required to fully understand the implications of such an approach.

To use penalties or rewards based on the relative costs of delivering the target service level would require substantially more work on the part of the Tribunal and the DNSPs, in order to understand and agree on the actual costs involved. Therefore this approach is not supported by Integral.

9.1.2 Caps on penalties and rewards

Caps on rewards and penalties have been used in several jurisdictions such as South Australia and more recently in the ACCC draft Service Standards Guidelines decision. Caps serve a useful function in ensuring that all stakeholders interests are protected in the event that the regulator, for whatever reason, gets it wrong when establishing targets etc.

Caps serve to protect the revenue of the DNSP from dropping to levels which are insufficient to support the ongoing operation of the business. The situation could arise where a DNSP fails to meet targets in one or a number of years. In that case, the DNSP would not be able to get back to the required level of service as the reduction in revenue means it could not spend sufficiently to turn around any adverse trends. It is possible that this downward spiral would continue until a point is reached where it is no longer viable for the DNSP to continue operating.

Caps also serve to ensure that the DNSP does not earn excessive or inappropriate revenues if targets are too soft or too easily achieved.

Under a paper trial it would not be necessary to set any cap as no actual revenue would be put at risk. However, if financial incentives were applied Integral believe that it would be appropriate to cap them at a suitable level.

9.1.3 Links to the Guaranteed Customer Service Standards scheme

Integral has made a submission to the Tribunal's review of the Guaranteed Customer Service Standard scheme and recognises that the GCSS scheme focuses on ensuring minimum service standards are met and maintained. This is in contrast to the service quality incentive scheme that focuses on total system performance. The GCSS scheme is a way of compensating those individual customers adversely affected when minimum service standards are not met.

10 Conclusion

As noted in this paper and in Integral's 2004 Network Submission, Integral supports the principle of establishing a link between price and quality of service. Integral believes that it is important that distributors understand customer requirements, to enable delivery of appropriate levels of service for which customers are willing to pay.

However, Integral believes that there are significant risks in applying financial incentives at this point in time, given the current data availability and accuracy limitations noted by PB Associates and acknowledged by the Tribunal⁵. In addition, Integral believes that adoption of a scheme prior to achieving a full understanding of the data gives rise to a risk of creating perverse incentives and a later need for significant changes to the scheme.

Integral therefore believes that any service standard incentive framework should initially be implemented as a paper trial. A paper trial is essential to the development of a credible and robust service quality mechanism as it enables the processes and systems supporting the mechanism to be tested, and also provides a means for scrutinising the measures, targets and other parameters of the framework before placing revenue at risk.

A meaningful paper trial that would facilitate the later introduction of financial incentives needs to address a number of the strategic design issues as set out in this paper.

Due to the developing nature of the service standards incentive framework in NSW, Integral has responded to the Tribunal's issues paper at the principle level. It is important that further, more detailed collaborative consideration is given to the framework. Integral believes that IPART and the DNSPs should work closely to define the key parameters both before and after the November Draft Determination.

⁵ Independent Pricing and Regulatory Tribunal of New South Wales, *Providing Incentives for Service Quality in NSW Electricity Distribution, An Issues Paper*, May 2003, p4