National regulatory reporting for electricity distribution and retailing businesses

Utility Regulators Forum

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Background

The Utility Regulators Forum was established in recognition of the need for cooperation in a federal system among state-based regulators. The forum consists of regulators operating in industries where utilities that traditionally operated as monopolies are being opened up to competition as a result of the competition reform process. By acting as a focal point for regulators in different jurisdictions the forum seeks to:

- foster understanding of issues and concepts faced by regulators in similar industries
- minimise overlap of regulations for large users who operate across jurisdictions
- provide a means of exchanging information
- enhance the prospects of consistency in the application of regulatory functions.

The following paper is released by the Regulators Forum to encourage discussion in a range of important regulatory issues.

Contents

1. Introduction 1

2. Electricity distribution businesses 2

Distribution quality of service 2

Distribution regulatory accounts 10

3. Electricity retailing businesses 14

Retailers 14

Access to affordability—proposed measures 18

Customer service—proposed measures 23

Supporting information 25

4. Implementation of framework 27

Appendixes

1. Definitions for distribution business' reporting 29
2. Definitions for retail business' reporting 36

Attachments

1. Distribution quality of service reporting template 39
2. Distribution regulatory accounts reporting template 43
3. Retailing quality of service reporting template 47

1. Introduction

Since the creation of the National Electricity Market (NEM) the different regulatory reporting requirements imposed by the various jurisdictional regulators have been criticised.

Although the transmission sector has almost completed its move towards a national regulatory framework under the ACCC, the remaining sectors (generation, distribution and retail) retain a significant element of state- or territory-based regulation.

With the different jurisdictional legal frameworks, information requirements vary. In general, each jurisdiction has continued to collect information in the same form than before the creation of the NEM. This meant that businesses operating in multiple jurisdictions had to collect their data in jurisdiction-specific forms. Many businesses only have the capability to collect data in the pre-NEM form.

Such differing requirements have prevented cross-jurisdictional businesses from achieving economies from a single data base collection system, and also made it difficult to compare performance across jurisdictions.

In November 2000 the Utility Regulators Forum therefore agreed that jurisdictional economic regulators would develop a core set of performance reporting requirements for the electricity industry that was nationally consistent.

A Steering Committee on National Regulatory Reporting Requirements was established to oversee the development of the requirement for reporting of:

- service performance of electricity distributors
- financial performance of electricity distributors
- service performance of electricity retailers.

The Steering Committee comprised representatives of jurisdictional and national electricity regulators and relevant departments from NSW, Victoria, ACT, Queensland, Tasmania and South Australia.

Three working groups were established comprising staff from the above regulatory organisations and electricity industry representatives nominated by the Electricity Supply Association of Australia.

Draft proposals were distributed in August 2001 to the industry and other interested parties for comment. Comments received were reviewed by the working groups.

Final draft proposals were submitted to the Steering Committee in December 2001 for approval.

This document presents the outcome of the above process, and sets out the agreed national regulatory reporting framework for the three areas covering the electricity distribution and retailing sectors.

2. Electricity distribution businesses

Distribution network service providers (DNSPs) operate a network of low voltage substations and wires that transports electricity from distribution centres to end-use customers. These utilities may be either privately or publicly owned.

The networks must be maintained and operated securely and provide open access to participants who trade in the national electricity market and to smaller operators who trade directly with local retailers.

DNSPs are regulated businesses whose prices and service standards for prescribed services are set by independent regulators. Each state and territory jurisdiction has its own regulator, and each has developed different reporting requirements for DNSPs operating in their jurisdiction. The Steering Committee was established to determine a common reporting framework acceptable to all jurisdictions.

Distribution quality of service

The objective of the Quality of Service Working Group was to review and compare the measures of network service quality currently used by regulators, and develop performance measures that can be collected on a consistent and reliable basis across the jurisdictions.

The working group's terms of reference required it to develop quality of service measures regarding:

- the costs of measurement and data collection
- their appropriateness as a basis for performance benchmarking
- compatibility with measures currently used by jurisdictions
- the extent to which they reflect and encompass issues of concern to customers
- the availability of data to calculate the measure.

While the working group recommended measures that in its view balanced the above objectives, the selection of performance measures was primarily driven by the availability of data in the short term. The measures proposed should be monitored by distributors in the normal course of their business.

However, it is recognised that in some cases there are deficiencies in the information currently available and further work is needed to improve the quality of performance measurement. As several submissions noted, most data and the systems for recording the data serve the objective of asset management rather than monitoring the quality of service provided to customers.

Submissions also noted that improved monitoring and reporting of some performance measures may involve additional investment in capital equipment and in the analysis and reporting of data. To that extent, there should be a balance between the benefits of more

accurate and comprehensive performance monitoring and the costs of measurement and reporting.

The Steering Committee identified a number of areas in which improved reporting would facilitate the comparison of distributors' performance, and potentially provide information on future network investment priorities. These issues, discussed below, will be considered by the Steering Committee when the regulatory reporting framework is reviewed. However, in some cases enhanced performance reporting may be dependent on jurisdictional regulators approving additional expenditure.

While performance measures for network reliability are widely used in a standardised format, the current systems and practices for monitoring and calculating reliability performance that affect the robustness and comparability of reported data are limited.

- Distributors' information systems do not provide connectivity data that links individual customers to a part of the physical network, and customer-weighted reliability measures (such as SAIDI and SAIFI) are based on estimates of customer numbers. In such cases, reliability measures may be subject to high error margins, and the quality of service received by individual or groups of customers cannot be efficiently tracked.
- The reliability (and technical supply quality) on a long feeder can potentially vary significantly on different sections of the feeder. Service quality monitoring could be improved by separately tracking and basing the calculation of reliability measures on the performance of individual feeder sections where reclosers or sectionalisers are used. This could also address concerns about the generic classification of feeders that run through disparate demographic and environmental conditions.
- Disaggregation of supply interruptions by the cause of the interruptions could provide an indication of where additional investment may have the greatest effect on improving supply reliability.
- Customer-weighted reliability measures do not necessarily reflect the relative size of supplies interrupted, or the volume of electricity that may have been consumed by affected customers during the interruption. Alternative reliability measures such as 'connected kVA duration interrupted' or 'energy not supplied' potentially provide an important indication of the economic impact of outages, and serve to balance the customer weighting of other reliability measures.
- Not all distributors are currently able to provide comprehensive and accurate data on momentary supply interruptions. This is regarded as an important measure for customers, as excessive numbers of momentary interruptions are inconvenient and generate complaints, and may indicate poor maintenance or design.

While voltage levels are the subject of an increasing number of complaints (owing partly to the sensitivity of consumer equipment), there is currently little relevant data collected, and no established means of translating data into performance measures. At this stage it is proposed to monitor the number of and reason for complaints, and the underlying cause of the problems. However, in the medium term consideration should be given to the standardised monitoring and reporting of voltage levels and other technical quality of supply parameters.

Some customer service measures are subject to minimum standards or guaranteed service levels in a number of states. This may serve as an alternative to comparative performance monitoring, in which case reporting of the measures is not required. Submissions noted that a number of distribution services (such as street lighting) are contestable in some states. While contestability may provide an incentive for improved service quality, it is nevertheless important for regulators (and the wider community) to have information on the quality of these services within their jurisdiction, and therefore to include the services in performance reporting. These customer service measures may be reviewed as contestable markets evolve.

Issues

The major issues addressed in submissions on the draft proposals and the approaches finally adopted, are as follows:

- Definition of a distribution customer—there was general support for the use of the national metering identifier (NMI) to define a distribution customer. This is consistent with and clarifies the supply point definition in the draft proposals.

  (The approach adopted defines a distribution customer in terms of a connection point that has been assigned a unique NMI, or an agreed point of supply.)

- Definition of excluded events—the draft proposals recommended use of a threshold number of customers affected by a supply interruption to define a major natural event to be excluded from the normalised measure of network reliability. Submissions were generally opposed to the use of an absolute number of customers.

  (The Steering Committee has accepted an alternative threshold whereby events are excluded if the outage exceeds an overall SAIDI impact of three minutes, and the outage is caused by an exceptional natural or third party event, the impact of which the DNSP cannot reasonably be expected to mitigate through prudent asset management.)

- Categorisation of feeders—the draft proposal defined four categories of feeders: CBD, urban, rural short, and rural long. The criteria for categorisation included feeder lengths, load and redundancy. While the proposed system of feeder classification was not widely supported, there was no common theme to the alternative proposals.

  (The Steering Committee has therefore retained the original feeder classifications.)

- Use of 'energy not supplied' as a reliability measure—most submissions were opposed to the use of 'energy not supplied' as a performance measure. However, several noted that it is an important indicator of the economic effect of supply interruptions and therefore a critical input to investment decisions. While a number of states are already using this measure or variations such as connected kVA interrupted, few distributors appear to have accurate profiling data to enable cost-efficient or comparable reporting of 'energy not supplied'.

  (It was therefore decided not to adopt 'energy not supplied' as a core measure at this stage.)

- Treatment of momentary interruptions as a reliability measure—submissions noted that while MAIFI is an increasingly important performance measure, distributors may

not be able to provide comprehensive and accurate data without considerable investment in updating monitoring equipment.

(It has therefore been decided that at this stage reporting of MAIFI should be optional at the national level, but may be applied at the discretion of jurisdictional regulators.)

The proposed distribution quality of service reporting template is presented in attachment 1. A more detailed description of the items in the template is provided in the following section.

Definitions and notes

A distribution network is a system of electricity lines and associated equipment at nominal voltages of up to 132kV, used for the distribution of electricity.

The distribution network generally ends where the service line connects to the customer's electrical installation. For an overhead service line, this is generally at the first connection on the customer's property. For an underground service line, this is generally at either the pit or pillar located near the property boundary or at the first connection on the customer's property. The distribution network for this purpose does not include the meter, service fuses or other service equipment on the customer side of the consumer's terminals.

Reliability of supply

Table 1. Reliability measures

Measure/description	Index	Definition
Total number of minutes, on average, that a customer on a distribution network is without electricity in a year.	**SAIDI** system average interruption duration index	The sum of the duration of each sustained customer interruption (in minutes) divided by the total number of distribution customers. SAIDI excludes momentary interruptions (one minute or less).
Average number of times a customer's supply is interrupted per year.	**SAIFI** system average interruption frequency index	The total number of sustained customer interruptions divided by the total number of distribution customers. SAIFI excludes momentary interruptions (one minute or less).
Average duration of each interruption.	**CAIDI** customer average interruption duration index	The sum of the duration of each sustained customer interruption (in minutes), divided by the total number of sustained customer interruptions (SAIDI divided by SAIFI). CAIDI excludes momentary interruptions (one minute or less).
Average number of momentary interruptions per customer per year.	**MAIFI** momentary average interruption frequency index	The total number of customer interruptions of one minute or less, divided by the total number of distribution customers.

Notes

1. A customer interruption is any loss of electricity supply to a customer associated with an outage of any part of the electricity supply network of more than 0.5 seconds, including outages affecting a single premise. The customer interruption starts when recorded by equipment such as SCADA or, where such equipment does not exist, at the time of the first customer call relating to the network outage. An interruption may be planned or unplanned. Each individual customer interruption is assigned to the high voltage feeder that carries the supply of electricity to that customer.
2. The number of distribution customers is calculated as the average of the number of customers at the beginning of the reporting period and the number of customers at the end of the reporting period.
3. Unmetered street lighting supplies are excluded. Other unmetered supplies can either be included or excluded from the calculation of reliability measures. Inactive accounts are excluded.
4. In calculating MAIFI, each operation of an automatic reclose device is counted as a separate interruption. Sustained interruptions which occur when a recloser locks out after several attempts to reclose should be deleted from MAIFI calculations.
5. Reporting of MAIFI is optional at the discretion of jurisdictional regulators, as some distributors are currently unable to provide data on momentary interruptions.

Table 2. Reliability data sets—sustained interruptions

Title	Data set
Overall interruptions.	All sustained interruptions including transmission, directed load shedding, planned and unplanned.
Distribution network interruptions—planned and unplanned.	Excludes: • transmission outages • directed load shedding.
Normalised distribution network—unplanned.	Further excludes outages which: • exceed a threshold SAIDI impact of three minutes • are caused by exceptional natural or third party events • the DNSP cannot reasonably be expected to mitigate the effect of the event on interruptions by prudent asset management.

Notes

1. Distribution network interruptions are disaggregated into planned and unplanned interruptions. Planned interruptions are interruptions for which the required notice has or should have been given.
2. Normalised distribution network interruptions are calculated by subtracting allowable excluded outages from distribution network unplanned interruptions.
3. Details of all events which result in excluded outages, including the overall SAIDI impact (distribution unplanned), are to be individually reported.

Table 3. Feeder classifications

Feeder category	Description
CBD	A feeder supplying predominantly commercial, high-rise buildings, supplied by a predominantly underground distribution network containing significant interconnection and redundancy when compared to urban areas.
Urban	A feeder, which is not a CBD feeder, with actual maximum demand over the reporting period per total feeder route length greater than 0.3 MVA/km.
Rural short	A feeder which is not a CBD or urban feeder with a total feeder route length less than 200 km.
Rural long	A feeder which is not a CBD or urban feeder with a total feeder route length greater than 200 km.

Notes

1. Rural short feeders may include feeders in urban areas with low load densities.
2. Back-up feeders should be given the same classification as the normal supply feeder.

Customer service

Timely provision of services

The number of connections not provided on or before the agreed date includes connections not provided within any regulated time limit and connections not provided by the date agreed with a customer.

Timely repair of faulty street lights

The 'number of days' taken to repair a street light is counted from the date of notification of a faulty street light rather than the date the street light ceased working.

Call centre performance

A call is 'answered' when the caller speaks to a human operator, but not when the call is placed in an automated queuing system. The number of telephone calls does not include calls to payment lines and automated interactive services.

Customer complaints

A complaint is defined by Australian Standard 4269:1995 as any expression of dissatisfaction with a product or service offered.

Business descriptors

Distribution customer

An active connection to a distributor's network which:

- has been assigned a unique NMI
- is otherwise the agreed point of supply established between the distributor and the customer.

Unmetered street lighting supplies are excluded. Reporting of other unmetered connections is optional.

Type of customer (residential/non-residential)

A residential customer primarily uses the electricity supplied for domestic purposes. Other customers are classified as non-residential.

Subtransmission (ST) line; high voltage (HV) line; low voltage (LV) line

Line classifications are determined by the line function, as line voltages differ between states. A subtransmission line is generally 22kV or above and is used to distribute electricity from a transmission connection point to one or more (zone) substations. A high voltage feeder is a line used to distribute electricity from a (zone) substation, generally operating at a nominal voltage between 1kV and 33kV; and a low voltage line operates at a nominal voltage of 1kV or below.

Energy delivered

Energy delivered is defined as annual gigawatt hours (GWh) of electricity consumed by end-customers of the distribution network. This includes energy produced by embedded generators and consumed within the distribution area through the distribution network, unread meters and unmetered consumption (including estimated theft).

Line length

Line length is the route length in kilometres of lines in service, including overhead lines, underground cables or a combination of the two. Line length does not include low voltage service connections. A double-circuit line counts as two lines, and each three-phase line, single-phase line or single-wire earth return (SWER) line counts as one line.

Total line length is to be disaggregated by feeder classification (CBD/urban/rural short/ rural long), line voltage (ST/HV/LV), and line type (overhead/underground).

Transformer capacity

The number and installed capacity of transformers is required as an input to calculate asset utilisation and to benchmark other measures. The number of transformers and the total installed MVA capacity of transformers are to be reported by voltage level—subtransmission (ST/HV) and distribution (HV/LV).

Distribution losses

Distribution losses is defined as:

(Electricity purchased minus electricity delivered) x 100%/(electricity purchased)

Network service area

Network service area is the area in square kilometres covered by the network service provider's distribution district. Areas within the distribution area to which a service is not provided by the distributor (e.g. national parks, inset areas) are included in the service area.

Peak demand

Peak demand refers to the maximum coincident demand on each network type at the terminal stations feeding the ST network, and at the zone substations feeding the HV network. The total peak demand is the maximum coincident demand in each of the network types. The total network peak demand is the maximum coincident demand of the distributor's network.

The peak demand should be stated in MW at the time of maximum MVA demand. A distributor's network peak demand does not necessarily coincide with system maximum demand.

Distribution regulatory accounts

This section outlines the agreed structure for the national alignment of regulatory accounting requirements for electricity distribution businesses. The key categories are:

- capitalisation policy
- transfer pricing
- revenue
- assets
- capital expenditure (Capex)
- depreciation
- operating and maintenance expenditure (OpEx).

Definitions for each category are included in appendix 1, and a data collection template is provided in attachment 2.

Definition issues

Capitalisation policy

There is no recommendation for a detailed capitalisation policy as it could be too restrictive. It is therefore proposed that a general definition be used, with each jurisdiction disclosing variations from the general policy. As the capitalisation policy is defined broadly, it should be reviewed within three years to assess the differences between jurisdictions.

Capital expenditure must be in accordance with relevant statutory accounting principles and/or Australian Tax Office requirements and at least one of the following rules must apply. The expenditure has to:

- relate to the purchase, development or construction of a new asset
- increase the capacity or functionality of distribution assets
- significantly reduce the ongoing maintenance of the assets
- extend the service life of distribution assets beyond what was expected when the assets were originally installed.

Treatment of transfer pricing

Costs included in regulatory accounting statements may pertain to transactions with related parties of the licensed business. These related parties might consist of other business segments within the same statutory body as well as other related entities. Where the transactions are material to either the regulated business or the related party, the total value of these transactions should be disclosed.

An item is considered material if its omission, misrepresentation or non-disclosure has the

potential to prejudice the understanding of the financial position and nature of the business activities of the DNSP, gained by reading the regulatory financial statements.

Revenue

Since customer categories are inconsistent throughout the jurisdictions, it is recommended that these categories are summarised and reported as shown below. Categories for revenue other than from network tariffs are also suggested.

Revenue categories

Network charges for:

- residential
- non-residential LV
- non-residential HV
- non-residential ST.

Public lighting.

Customer contributions.

Other distribution services.

Profit from the sale of assets—disclose gross asset sales proceeds and book value of assets sold.

Other revenue.

Each revenue category should be classified as regulated or excluded/unregulated with an 'R' or 'E' as appropriate.

Asset type

The recommended categories shown in 'Categories for fixed assets and capital expenditure/additions to fixed assets' will allow regulators to determine the 'reasonableness' of each asset class when conducting a price review. The categories are defined in appendix 1.

Public lighting is treated differently in different jurisdictions. It is therefore important to identify these assets separately, so that they may be included or excluded as required.

Capital expenditure and additions to fixed assets

The difference between capital expenditure and additions to fixed assets is largely one of timing. Capital expenditure is recorded when the money is spent whereas additions to fixed assets are recorded only once projects have been commissioned and the assets are included in the asset register.

Where the regulatory asset base is rolled forward using additions to fixed assets rather than capital expenditure, the additions to fixed assets should be reported. If customer contributions are excluded from the regulatory asset base, they should be excluded from additions and this should be noted.

Similarly, capital expenditure should be provided if this is used to roll forward the regulatory asset base. Capital expenditure should exclude cash capital contributions if these are excluded from the asset base, and this should be noted.

*Categories for fixed assets and capital expenditure/additions to fixed assets**

System assets:

- subtransmission lines
- distribution lines
- substations
- distribution transformers
- low voltage supply
- meters
- communications
- land and easements
- buildings
- other system assets (specify items > 5 per cent of total system assets)
- work in progress (fixed assets only).

Non-system assets.

Public lighting.

* Additions to fixed assets should be provided if these are used to roll forward the Regulatory Asset Base.

Definitions of the system asset categories are provided in appendix 1.

Capital expenditure by purpose

Capital expenditure on system assets (excluding public lighting) should be reported under the following headings:

- asset replacement
- demand related
- reliability and quality improvements
- environmental, safety and legal obligations and other.

Definitions of these categories are provided in appendix 1.

Depreciation

The categories of depreciation must be the same for asset values to use the information appropriately.

The following information should be collected on depreciation:

- annual depreciation charge
- average expected lives grouped by asset category (as defined under asset values)
- average useful remaining lives grouped by asset category
- the depreciation methodology used if straight-line depreciation is not adopted.

Operating expenditure

The categories for distribution operating expenditure are shown below. A definition of each item is provided in appendix 1.

Distribution operating expenditure categories

A. Network operating costs
B. Network maintenance costs Inspection Maintenance and repair Vegetation management Emergency response Other network maintenance costs (specify any component that exceeds 5% of total operating costs*)
C. Other operating and maintenance costs Meter reading costs Customer service Advertising/marketing Contestability costs Other operating costs (specify any component that exceeds 5% of total operating costs*)
D. Public lighting
E. Total corporate overheads included in cost categories A – D

* Total operating costs = A + B + C + D

The overhead costs should be allocated to the different cost categories as appropriate. If the overhead amount is identifiable, the total dollar value of allocated corporate overheads should be separately disclosed.

3. Electricity retailing businesses

Retailers

Several electricity retailers operate in each region of the national electricity market.

Retailers purchase electricity either through the spot market or from local generators who commit to sell their entire output to them. Retailers can also make arrangements with generators through financial instruments called 'hedge contracts' to manage the risk exposure against pricing outcomes.

Electricity purchased by retailers is sold on to end-use customers. Some retailers simply buy and sell electricity, and are not associated with a company that operates a distribution network. Other companies operate both retailing and distribution businesses, and various ring-fencing arrangements have been developed by regulators to ensure the business operations are separated. Many retailers are also generators.

Retailers deal directly with consumers, and the services they provide impact directly on how customers perceive the performance of the electricity industry. It is for that reason that comparative performance is important to identify retailers who provide quality service to consumers.

Monitoring the retail electricity market

Effective competition creates strong incentives for retailers to provide an efficient mix of price and service quality, and arguably may reduce the need for close monitoring by regulators. In those states with contestable markets, the regulatory frameworks for 'large' retail customers recognise the incentives created by customer transferability and contain few direct controls over service standards or contractual arrangements.

Some of the benefits of competition are likely to flow through to franchise or monopoly markets, with retailers seeking to establish a reputation for customer service before markets (or market segments) become contestable. Competition might also benefit the monopoly segments of a market by providing a basis for performance comparison.

However, in an immature market for an essential service there are several issues that are likely to be of concern to stakeholders, including regulators. The objectives in collecting and publishing data on retail performance are to:

- monitor key indicators of access, equity and affordability of electricity services
- establish a base of information on the operation of the contestable retail market
- support informed consumer choice in the emerging contestable market
- subject the performance of licensees to regulatory, customer and public scrutiny to identify emerging issues.

Given the different stages of market development across jurisdictions, it is likely that there will be differing approaches to regulation of retail performance. However, the availability of data enabling comparison of service levels will improve the quality of regulatory processes regardless of the approach adopted.

Differences in regulatory frameworks will also result in some jurisdictions collecting data in a particular form or additional data that does not align with a national reporting framework.

While it may be desirable in the longer term to harmonise regulatory frameworks, the objective of this project is limited to identifying common requirements and establishing consistent definitions and methodologies.

Developing customer service indicators

The retail working group had to develop a set of customer service measures for electricity retailers. The group's terms of reference required it to have regard to:

- how appropriate the measures are for performance comparison
- the costs of measurement and data collection
- the extent to which the measures reflect issues of concern to consumers
- the compatibility of the measures with those currently used by jurisdictions.

Performance measures ultimately indicate the extent to which a retailer's services meet the expectations of its customers. Performance measures should therefore be selected on the basis of how well they relate to the quality of service concerns of customers.

In practice, consumer preferences are only approximately known, and the measures used are likely to be those for which data is readily available. In some cases the benchmark for performance will be regulated minimum standards; in others, performance will be assessed by comparison between retailers.

The terms of reference recognised the need to balance the costs of compliance (which ultimately flow through to prices) with the benefits to regulators and consumers of access to reported information. The costs of collecting data are often relatively easy to quantify; the benefits may be less clear, particularly in a competitive market. The real benefits of competition may only exist to the extent that consumers (and regulators) have access to information that enables them to make meaningful comparisons.

In the absence of effective competition, regulators can use performance data to enforce regulated minimum standards, or to link service standards to prices in regulated markets. In a competitive market, publication of data creates incentives for retailers to improve their performance relative to competitors, and supports more informed choices by customers.

The retail working group considered including measures for a common reporting framework in the context of current retail market arrangements. Additional measures may

be introduced having regard to the implementation of full retail competition, or as competition evolves and further issues emerge.

Several issues affected the extent and focus of performance measures proposed by the retail working group:

- Differences between regulatory regimes mean that indicators currently used by some jurisdictions are not appropriate as core measures. For example, some jurisdictions do not allow late payment fees to be charged by retailers. However, reporting on late payment fees may be required in those jurisdictions that do permit them.
- Regulators' powers to collect retail performance information differ from jurisdiction to jurisdiction, and may also differ between the contestable and non-contestable markets within a jurisdiction. The commitment to implementation can only be on a 'best endeavours' basis.
- The measures proposed for retailers are not as extensive as those proposed for distribution businesses because of the direct and indirect benefits of competition in the retail market as compared with an industry sector which is substantially a natural monopoly.
- Matters that are subject to explicit licence requirements, and are enforceable through guaranteed service levels for example, are considered compliance matters subject to jurisdictional requirements.

Two categories of indicators were identified:

- access and affordability
- customer service.

Access and affordability is primarily a function of the price of electricity services. It is also affected by a range of secondary matters relating to the credit management policies of retailers. This includes use of security deposits, the availability of payment plans to assist customers having difficulty paying their bills, and procedures for disconnection of customers for non-payment of bills.

Customer service indicators are a measure of customers' satisfaction with their retail service, and the accessibility of retailers for customer inquiries and complaints. These issues are measured through complaint data and management of telephone services. Further relevant data is available to regulators through Ombudsman offices or their equivalent offices in those states with established dispute resolution procedures.

Performance reporting by retailers

The retail performance measurements will only apply to the small retail market. This is defined as customers who use less than 160 MWh per year in New South Wales, Victoria, South Australia and ACT, or less than 200 MWh per year in Queensland.[1]

[1] It is noted that for some jurisdictions, e.g. Tasmania, this distinction is not relevant as the entire market is non-contestable.

Within that category the retail indicators are to be disaggregated by residential and business customers.

While this proposal establishes a common basis for reporting, specific jurisdictional requirements, such as the frequency of reporting, have not been addressed. The general approach has been a minimum standard of annual reporting with individual jurisdictions making decisions as to the frequency of reporting against some or all agreed measures and any additional measures to satisfy licence conditions or particular policy objectives.

Retailers will be required to report their performance against agreed measures to their jurisdictional regulator. The industry expressed significant concern about the competitive implications of data publication which may give an insight into market shares. There was also the matter of data interpretation in any public reporting.

There is a distinction between reporting and disclosure. This was made clear in the initial consultation proposal which was circulated for comment. The principle is that each jurisdiction should make the data available to all other regulators. Each regulator must decide on the form of interpretation and publication of data. This will take each regulator's confidentiality obligations into consideration as well as the state of competitive development of the industry in the relevant jurisdiction.

There are a number of factors that may affect the comparability of retailers' statistics against various performance measures within and between jurisdictions, and between years. These include:

- regulated procedures and practices that differ between jurisdictions (for example, the procedure retailers must follow before a customer can be disconnected)
- the legitimate offer by a retailer of a low-quality service in a competitive market (as long as regulated minimum standards are observed, the choice of a range of service quality and price offerings improves market efficiency)[2]
- different demographics of retailers' customer bases as the retailers operate in different geographic regions, or because a retailer targets a particular market segment in a competitive market
- data trends from year to year which are influenced by a range of factors including general economic conditions.

While the significance of some of these factors on the comparability of performance data can be reduced by means such as disaggregation of data (e.g. residential/business customers) or appropriate data normalisation, direct comparisons should take these issues into consideration before conclusions are drawn on a retailer's performance.

Regulatory frameworks generally leave retailers with considerable discretion as to the implementation of particular requirements, and retailers' policies and practices do differ. This may, for example, affect a customer's access to electricity or the likelihood that

[2] However, this raises the question of whether customers should have to rely on their own inquiries to determine service quality differences, or whether regulators have a legitimate role in publishing data in a standard format to facilitate comparisons.

customers facing payment difficulties could have their electricity disconnected. There is in this reporting framework an alignment of definitions where these have been raised as significant issues, e.g. the definition of a complaint and some telephone contact data.

It is felt at this time that the remaining differences in approach should not be material for broad comparative performance purposes. The performance data should provide useful information for all stakeholders to monitor retail performance and understand issues affecting electricity customers.

The Steering Committee has developed a reporting template for retailer quality of service reporting. This is presented in attachment 3. Definitions of terms are provided in appendix 2.

Access to affordability—proposed measures

Customer access to supply is determined by the ability to pay bills using the payment options available and so avoiding disconnection for non-payment.

Access to payment options, use of security deposits or refundable advances and rates of disconnection levels are broadly related and provide an overview of the affordability of the businesses' services to customers experiencing payment difficulties.

Retailers' capacity to manage customer bill payments and assist customers in managing their own bill payments will take on even greater importance in the competitive market. The introduction of retail contestability in some jurisdictions has been accompanied by the strengthening of consumer protection arrangements generally, and access and affordability measures in particular. These protections have been given effect through minimum standards regimes. While the standards primarily protect default or franchise customers, a core set of provisions that cannot be 'traded off' by retailers for a lower price is likely to apply to all small retail customers.

Three categories of indicators are recommended:

- payment plans
- security deposits/refundable advances
- disconnections/reconnections.

Monitored over time, these measures are expected to provide important information on trends in the accessibility and affordability of electricity services.

In some jurisdictions electricity concession or rebate schemes and emergency assistance payments are available to electricity customers. Examples include pensioner and low income concessions, life support rebates and emergency relief grants. Retailers are generally required, as a licence condition, to advise customers of the availability of any concessions or assistance to which the customer may be entitled, and facilitate payment to the customer's account. Performance measures relating to these schemes are not included as core measures, as arrangements for delivery of the concessions and the types of concessions available differ between jurisdictions.

Payment plans

A customer's capacity to afford electricity is primarily a function of the price of the electricity and the level of consumption by the customer. However, affordability is also affected by the payment options available to customers to plan for payment of their accounts.

Licence conditions relating to payment management services differ between jurisdictions. In a broad sense, payment management assistance could include retailers offering the following to customers:

- the right to negotiate reasonable payment arrangements for customers experiencing payment difficulties (instalment payment plans)
- billing cycle flexibility to allow customers to determine the frequency of payments
- access to financial counselling
- advice on energy efficient appliances.

Of particular interest are the arrangements available to customers to pay arrears and avoid disconnection.

Retailers are generally required to provide adequate information on the availability of payment options to customers having difficulty paying their account, and the opportunity to negotiate reasonable payment terms. As noted above, retailers should also advise customers of relevant emergency assistance or payment concession schemes.

Proposed core measures

Payments under instalment payment plans

An instalment payment plan is defined for the purposes of this measure as:

- an arrangement between a retailer and a customer for the customer
- to pay arrears and continued usage on their account
- according to an agreed payment schedule and capacity to pay.

It does not include customers using a payment plan as a matter of convenience or for flexible budgeting purposes. The distinction is between debt related payment plans for those experiencing payment difficulties and budgeting/payment-in-advance plans.

Default on direct debit payments

The definition of default should be determined by each retailer, but generally involves multiple failed attempts to process a direct debit payment. The intention is to use this as a leading indicator for emerging payment difficulties. A particular incident involving a default on a direct debit repayment does not necessarily indicate a difficulty in the capacity to pay, but the business should monitor and report such data.

Allowing the electricity entity to put forward a definition and agree to it with the regulator, recognises an issue raised in submissions: that data collection should as best as possible reflect true default on payments, rather than error or a transitory shortfall. It is likely that an agreed standard will emerge along the lines of payment rejections in consecutive payment periods.

Centrepay

The working group considered a proposal to include the number and percentage of customers who use Centrepay to make payments as an indicator. Industry submissions raised some concern that the number of customers was in reality a reflection of their customer demographic.

Industry also expressed concern about the expense of the connection to the service which was being promoted as a commercial payment service by Centrelink. It was urged that it would be inappropriate to prefer one payment service over another by mandating its use by retailers. This would remove the incentive to reduce cost and improve service.

Regulators do have a proper interest in the availability of Centrepay as a payment option for those who may be entitled to use the service which is a direct deduction from Commonwealth welfare payments.

It would be inappropriate to mandate the use of the service by retailers, but regulators should request advice from retailers about the availability of the service and the reasons why it may not be available.

Security deposits/refundable advances

Refundable advances or security deposits are payments required by retailers before electricity is supplied, when there is a perceived risk of non-payment by the customer.

A number of jurisdictions regulate arrangements for security deposits through codes or pricing determinations. Matters which may be subject to regulation include:

- the circumstances under which an advance may be required
- the maximum amount of the advance
- the maximum period of time that an advance may be held
- whether interest on the advance is paid to the customer.

Circumstances in which retailers are permitted to require a security deposit in some jurisdictions include when a customer has:

- left a previous address without settling an electricity usage debt and the debt remains outstanding
- used electricity illegally
- refused to produce acceptable identification.

In NSW and Victoria the maximum amount that can be required as a security deposit for residential and small business customers is approximately the average bill for four months.

Security deposits can be an appropriate credit management tool for retailers and are therefore generally permitted subject to minimum standards. However, they also have the potential to place customers further in debt and perpetuate financial difficulties. They can also be used to unduly discriminate against particular classes of customers. Security deposits can therefore act as a constraint against access to and affordability of electricity.

Proposed measure

Lodging of security deposits (residential and non-residential)

The majority of submissions supported the collection of this data. The industry did not support collection of the average amount of the deposits as this was commonly a straightforward percentage of customer use, and the publication of dollar figures might convey commercially sensitive information.

Retailers proposed a differentiation between residential and small business data as the imposition of security deposits was common practice for small business customers. They also noted that the data should be considered in context as the number of deposits may be a reflection of broader trends, e.g. demographic changes or a cyclical economic downturn.

However, it is believed that the number of security deposits provides an insight into credit management practices and policies. Trends over time may indicate the effect and effectiveness of credit policies or, as industry contends, may at times reflect other underlying factors.

Security deposits can deter access to electricity supply; to counter this the retailer needs to balance credit risk against the commercial imperative to sell electricity. Experience shows that when a retailer uses security deposits inappropriately, it quickly emerges as an issue in either the small business or residential sector through Ombudsmen or industry associations. There are significant constraints on the use of security deposits in most jurisdictions.

On balance, it was felt that at this time there was no need to monitor the average value of security deposits.

Disconnections/reconnections

Disconnecting supply for non-payment is generally seen as a last resort for retailers attempting to recover a debt or minimise a loss. Disconnection has particular significance for customers and it is therefore important that customers are given every opportunity to make payment before disconnection action is pursued.

Regulated disconnection procedures vary between jurisdictions. However, there are a number of steps that a retailer must take before supply is disconnected:

- offering the customer alternative payment options
- informing the customer about government concessions and emergency relief programs
- using best endeavours to contact the customer in person
- giving a specified period of written notice of the intention to disconnect.

Regulated minimum standards also restrict the times of disconnections, and in some cases specify the minimum amount owing before a customer can be disconnected.

In some jurisdictions retailers are permitted to charge a fee for late payment and for a disconnection visit. This arguably creates an incentive to pay an account within the required time. However, it also potentially imposes an additional burden on customers with genuine payment difficulties and perpetuates financial hardship. It is therefore desirable (but mandatory in Victoria) that retailers, in enforcing provisions for non-payment, distinguish between customers who refuse to pay and those who cannot pay.

Data on the number of reconnections in the same name can indicate instances where a customer may have been able to avoid disconnection if appropriate arrangements for payment of an account had been available.

Proposed measures

Failure to pay amount due

This applies to residential and non-residential customers.

Reconnections at the same premises in the same name within seven days

The majority of submissions supported measures for disconnection. The number of reconnections that were not in the same name can be determined by subtracting the number of the same name reconnections from the total.

Legal actions for recovery of debt

There was consultation as to whether or not data should be collected on the use of legal action as a means of debt recovery.

While there was some support for this from customer groups and Ombudsmen, it was concluded that the number of legal actions pursued was not an appropriate measure. Data on legal actions would not necessarily provide an insight into underlying credit policies. Legal action is a costly and uncertain process and will not be initiated except when there is a genuine dispute, and/or the amount is significant and the entity has concluded that there is a capacity to pay.

Customer service—proposed measures

In a monopoly market there is little direct incentive for a retailer to provide a high level of customer service. However, price and service quality are closely interrelated in competitive markets. With the introduction of retail competition in some jurisdictions, customer service is likely to be a significant basis of differentiation between retailers.

Under arrangements proposed in those states introducing competition, customers will have the option to return to standard contracts at a regulated price, or (subject to contract terms) to transfer to another retailer. Customers will also be able to refer complaints about breaches of the regulated minimum standards for small retail customers to an Ombudsman.

The right of transfer and the legislated powers of the Ombudsmen provide strong incentives for retailers to offer a high quality service and to comply with regulated standards. The number of performance measures proposed at this stage is therefore limited.

Regulators will monitor complaints to Ombudsmen and data on churn rates for evidence of consumer dissatisfaction with service standards. They will also consider extending the range of indicators if there is evidence that service expectations are not being met.

Two categories of measures are proposed:

- customer complaints—measuring the degree to which a retailer's services meet customers' expectations
- telephone call management—measuring the efficiency of a retailer's call centre service.

Customer complaints

All submissions agreed that there should be reporting of complaints, but industry particularly was looking for guidance on what constituted a complaint for the purposes of reporting. What constitutes a complaint may be commonly understood, but is more difficult to define. Australian Standard Complaints Management AS4269:1995 defines a complaint as any expression of dissatisfaction with a product or service offered. However, a consistent understanding of the term is complicated by differences in the definitions used by regulators and by the classification systems for customer contacts used by Ombudsmen offices.

The number of complaints received by a retailer is a measure of customer satisfaction with the service they receive. The measure should not distinguish 'valid' complaints from those the retailer may consider invalid or frivolous. It should be seen as a measure of customers' perceptions of service quality, as well as the substantive service standard.

The office of the NSW Electricity Ombudsman classifies a 'complaint' referred to it by a retailer as, in ascending order, an inquiry, a consultation, a complaint or a dispute. The definition of complaint as 'a consultation not resolved to the customer's satisfaction' is therefore more severe than the Australian Standard used by retailers. The usual practice for NSW retailers is to refer a matter to the Ombudsman at the 'consultation' level.

For the purpose of classifying customer calls to a retailer, the most important distinction is between an inquiry and a complaint. By way of example, a customer may call to ask about

an outage, this is not necessarily a complaint. If, however, the retailer advised that power would be on in three hours and the customer rang back four hours later to state that the power was still off, the second call should be registered as a complaint.

With regard to inconsistencies in the definition of a complaint and the distinction between an inquiry and a complaint, more particularity would be of assistance, although the underlying principle of the Australian Standard is the correct approach—'an expression of dissatisfaction about a product or service offered'.

A proposed definition builds on the Australian Standard and the Victorian definition and gives some further particularity:

Complaint—a written or verbal expression of dissatisfaction about an action, a proposed action, or a failure to act, or in respect of a product or service offered or provided by, an electricity entity.

Proposed measures

Retail customer complaints

Most submissions supported the proposed measures. There is potential data collection difficulty for some retailers in reporting a total number of retail complaints as they may also receive complaints that relate to distribution. Nevertheless, with functional ring fencing and separation being a feature of competitive markets this will not generally pose a problem and such separation would be consistent with good business practice, even for integrated business operations.

The following approach should be refined—when there is an entity providing both retail and distribution services, there must be a fault line which clearly distinguishes network issues, e.g. power interruptions, connection problems and quality of supply.

Account or billing complaints (as a percentage of total number of complaints)

This clearly focuses on the retailing function and is a major source of inquiry, complaint and ultimately disputes.

Account or billing complaints include matters directly relating to the amount of a bill, as well as any ensuing matters such as disconnection due to an unpaid disputed bill and complaints relating to affordability or hardship. This includes complaints about difficulty in paying accounts, overcharging, prices, payment terms and methods, and debt recovery practices.

An electricity entity must include account complaints/inquiries as a menu option, or preferably as a separate line.

Other retail complaints (as a percentage of total number of complaints)

Other complaints relate to the quality and timeliness of retail service, for example in relation to account confidentiality, requests for account information and other service issues.

Telephone service and inquiries

Telephone inquiries concern a retailer's efficiency in answering calls to a call centre or an operator. For the purposes of these measures calls to automated payment lines are not included.

A telephone call is 'answered' when a caller speaks to a human operator or to an interactive service that provides the information requested, but not when a call is placed in an automated queue or continues to ring without any response.

The time to answer a call is measured from when the call enters the system (including that time when it may be ringing unanswered by any response) and the caller speaks with a human operator or is connected to an interactive service and there has been a menu selection.

Proposed measures to apply to both account lines and other lines:

- telephone calls responded to within 30 seconds
- percentage of calls abandoned.

Most submissions supported these measures.

The industry representatives on the working group qualified their support for the measure in its original form of a timed response from a human operator. They contended, and it has been accepted, that Interactive Voice Response (IVR) is an accepted and widely employed practice in customer service and that the electricity retail industry should not be penalised for its use of this technology.

This measure determines the level of customer service and would best be reflected by the length of time a customer is kept waiting once they have connected to the appropriate number, along with the abandoned call rate.

Supporting information

The following information is required to standardise retailers' performance against core measures.

Telephone calls to a call centre or inquiry line

In most instances this will be an uncomplicated matter. Nevertheless, it is recognised that centralised call centres are increasingly used for entities operating across jurisdictions. This requires the allocation of calls to the entity as a licensee in a particular jurisdiction. This aspect of regulatory reporting reflects existing obligations rather than imposing a new obligation.

Customer numbers—total

The consultation paper proposed that a customer means the person in whose name an account is held. This can be different from the number of addresses to which electricity is supplied if multiple accounts are held by the one person.

This may not properly reflect the nature of the retailing relationship. While the retailer is focused on the customer, the services are provided in respect of the specific account. A customer may therefore dispute the billing for a particular account, while his other accounts are not the subject of dispute.

Given the nature of the retail services and the customer relationship, it is proposed that a customer be aligned with an account. Thus, multiple accounts in one customer's name will be treated as separate customers.

Small retail customers

A small retail customer is a customer that consumes less than 160 MWh in a year (NSW, Victoria, ACT, South Australia), or less than 200 MWh a year (Queensland). It is acknowledged that the 160 MWh categorisation of customers is not reflected in the regulatory arrangements for all jurisdictions.

This will be a matter for each jurisdiction but there would be merit in aligning with the 160 MWh definition to minimise distortions arising when data is used for comparative purposes.

Domestic and non-domestic small retail customers

A domestic customer is someone who uses their premises primarily for residential purposes. As thresholds may vary between individual retailers, retailers should use their own particular definitions for domestic (and non-domestic) customers.

There is unlikely to be any significant distortion from this approach, although the matter should be reviewed on the basis of experience with the assessment of comparative data.

4. Implementation of framework

It is important to note that the Utility Regulators Forum has no powers or legal status. It is not able to enforce the collection of information consistent with the agreed format.

Instead, each jurisdictional regulator has the power to establish an information requirement on businesses operating within its jurisdiction, and it is only through the exercise of this power that a nationally consistent reporting requirement can be established.

Each jurisdictional regulator has committed to move towards the agreed framework at the earliest possible time. However, it will not be possible for all jurisdictions to achieve this at the one time. Data collection systems have been long established, and it is a major exercise to replace them with new measures. It may also involve additional expenditure, and would be better managed if undertaken as part of other changes in system monitoring or data processing.

The Steering Committee has agreed that reporting under the new framework should start from 1 July 2002. The first full year's data would therefore not be available until after June 2003.

It is recognised, however, that it will take some time before electricity businesses are able to report all of the agreed information, as development and implementation of the data collection and processing systems will not be possible for all measures by July 2002. The Steering Committee accepts that there will be potential gaps in the database across the jurisdictions for some years. It was, however, considered better to commence implementation immediately rather than wait for compliance from every jurisdiction and company.

It should be recognised that each jurisdictional regulator is required to go through a formal consultation process before changing jurisdictional information requirement guidelines. This process has only recently commenced following the Steering Committee approval of the final guidelines in December 2001. It will still be very difficult to have the new arrangements in place by July 2002.

Some jurisdictional regulators, for their own requirements, wish to collect additional or more detailed information than is specified in the national database. The national framework does not restrict jurisdictional regulators. It is the minimum standard for data across the NEM and at the highest level is able to produce useful comparative information.

Considerable debate and discussion was involved in the establishment of the national standard, involving judgment and compromise. Breakdown of information into geographic areas, investment purpose, expenditure classifications, etc. inevitably involved making judgments which affect costs of changing systems and accounting practices in businesses. However, the Steering Committee believes the end result will produce useful information for both regulators and the businesses affected.

The Steering Committee believes that the information collected should be made publicly available and is not of a commercial-in-confidence nature. Each jurisdictional regulator has its own process for managing commercially sensitive information, and that process will continue to apply. In general, however, it is expected that each jurisdiction will publish the full national database for its businesses.

Rather than create a single national database with all of the regulatory information from every jurisdiction, the Steering Committee has decided that each jurisdiction should publish its own information in a nationally consistent format. Accordingly, a standard template has been prepared which will be adopted by each jurisdiction and presented on their website. Interested parties will be able to download information from all jurisdictional websites for comparison and analysis.

The Steering Committee expects that the information templates will start appearing on jurisdictional websites in the second half of 2002.

Appendix 1

Definitions for distribution businesses' reporting

These definitions relate to the terms used in the distribution regulatory accounts reporting template—attachment 2.

1 Revenue

Revenue should include estimated unread meter sales.

1.1 *Residential*

This includes all income from customers on residential (domestic) network tariffs, including standard, time-of-use and controlled load tariffs. Both urban and rural residential network tariffs are included. NSW distributors must include the domestic component of rural network tariffs.

1.2 *Non-residential LV*

This includes all income from non-residential customers on LV network tariffs, including standard, time-of-use and demand tariffs. This category may include income from residential customers who are on a general (i.e. not specifically residential) network tariff, excluding the domestic component of rural network tariffs in NSW (see Residential). If residential customers are included, a note to this effect should be provided.

1.3 *Non-residential HV*

This includes all income from non-residential customers on HV network tariffs, including standard, time-of-use and demand network tariffs.

1.4 *Non-residential ST*

This includes all income from non-residential customers on ST network tariffs.

1.5 *Public lighting*

This includes all income from the operation and maintenance of lights used primarily for lighting public places (mainly street lights).

2 Fixed assets and capital expenditure

The intention of the proposed categories is:

- first, to group assets on the basis of their function in the distribution process
- second, to group assets on the basis of expected lives.

These intentions may at times conflict, but the working group believes that the proposed categories provide a suitable compromise between the two goals. For example, land and buildings are recorded separately because of their expected lives.

Figure 1.

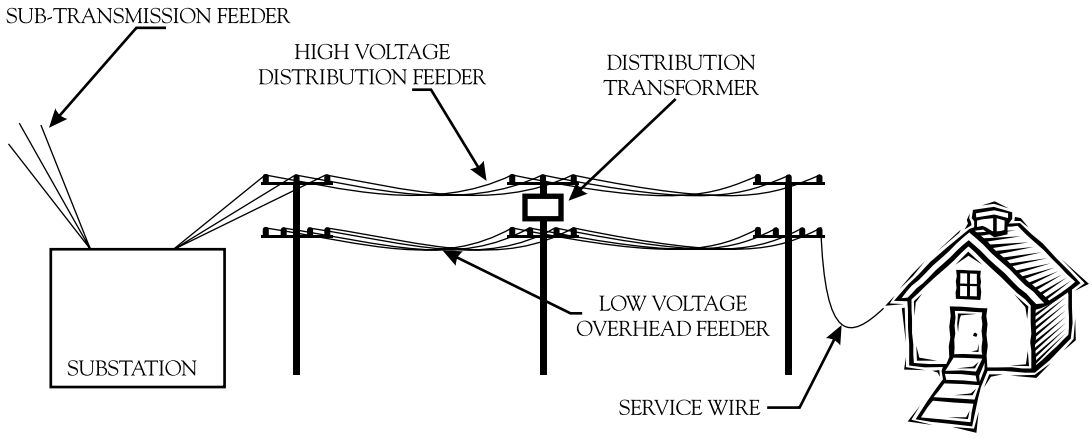

Figure 1 represents a simplified distribution system, showing the functional categories.

2.1 *Subtransmission lines*

Overhead and underground lines and cables that serve a subtransmission function. Included in this category are subtransmission lines that serve small groups of customers. These lines typically have a voltage of 33 kV or more.

2.2 *Distribution lines*

Overhead and underground lines and cables that serve a distribution function, including distribution feeders, and the low voltage distribution system. These lines typically have a voltage of less than 33 kV.

2.3 *Substations*

The value of all distribution substations, including the 'distribution components' of combined transmission/distribution substations and high voltage customer connections. Excluded are the estimated value of land and buildings, and distribution transformers connected to distribution feeders (reported separately).

2.4 *Distribution transformers*

All transformers except those included in the total cost of substations.

2.5 *Low voltage supply*

Lines and cables providing the connection to the customer, including service main/pits.

2.6 *Meters*

Customer metering and load control.

2.7 *Communications*

Including SCADA and Central Control Facilities, Communication Bearer Systems.

2.8 *Land and easements*

All capital value of land and easements (including the estimated value of substation land).

2.9 *Buildings*

All buildings including substation buildings.

2.10 *Other system assets*

For example, emergency spares that are not part of inventory, such as mobile generators and emergency substations. Any item that exceeds five per cent of total system assets should be specified.

2.11 *Work in progress*

Includes any work that has started but has not yet been completed and commissioned. (Relevant only to assets values.)

3 Capital expenditure by purpose

The classification of a project should depend on the primary reason for the project rather than the ex-post effects. However, a project may serve more than one purpose, for example asset replacement may be combined with reliability improvements. Where the secondary function involves additional expenditure, this additional expenditure should be reported under the secondary function.

3.1 *Asset replacement*

This includes all capital expenditure whose primary purpose is to maintain the existing level of supply and standard of service.

3.2 *Demand related*

This includes all capital expenditure whose primary purpose is to meet an increase in demand, or a movement of load within the network.

3.3 *Reliability and quality improvements*

This includes all capital expenditure, the primary purpose of which is to improve network reliability.

3.4 *Environmental, safety and legal obligations*

All capital expenditure relating to environmental, safety and legal obligations.

3.5 *Full retail contestability*

All capital expenditure for full retail contestability.

3.6 *Other*

All other capital expenditure should be recorded in this category.

4 Network operating and maintenance expenditure

1. Overhead costs should be included in the categories as appropriate.

2. All costs that have been capitalised must be excluded.

4.1 *Operating expenses*

The operational costs associated with the operation of the network including, but not restricted to:

- the staffing of the control centre(s)
- operational switching personnel
- outage planning personnel
- provision of authorised network personnel
- demand forecasting
- procurement
- logistics and stores
- information technology (IT) costs attributable to network operation
- insurance costs
- land tax costs.

4.2 *Maintenance expenses*

All expenditure relating to the inspection of distributor's poles and/or lines including subtransmission, distribution and customers' high voltage lines.

4.3 *Maintenance and repair*

- Line and pole maintenance.
- Maintenance and repair of apparatus on consumer premises.
- Maintenance and repair of substations.
- Maintenance and repair of work depots and buildings.
- Maintenance and repair of tools and equipment.
- Other.

4.4 *Vegetation management*

All expenditure relating to all normal tree cutting, undergrowth control and waste disposal connected to line clearing including coordination and supervision of vegetation control work. Emergency work must not be included.

4.5 *Emergency response*

All expenditure relating to the work incurred where supply has been interrupted or assets damaged or rendered unsafe by a breakdown, making immediate operations and/or repairs necessary.

4.6 *Other*

This includes:

- fire mitigation (excluding vegetation management)
- field training
- insurance
- sundries
- any other costs.

If any component of this category exceeds five per cent of total operating costs a description and dollar value of the component must be specified.

4.7 *Meter reading costs*

All expenditure incurred in the carrying out of meter reading activities.

4.8 *Customer service*

The costs of providing the following services to distribution customers include:

- facilitating the reporting to the distribution business of network faults and safety hazards, and complaints about the quality and reliability of supply
- responding to queries on new connections, disconnections and reconnections
- responding to queries on improving power factor or load factor.

Call centre costs and customer information system (CIS) operating costs that are caused by the provision of the above services are included.

Excluded from this cost category are:

- costs associated with account inquiries
- costs associated with field activities such as meter repairs, supply connection and line repairs
- responding to general inquiries that are non-network related
- undertaking any work, beyond recording the query and answering questions, associated with new supply connections that proceed, or improving the power factor or load factor.

4.9 *Advertising/marketing*

Advertising and marketing activities attributable to the provision of distribution services, including:

- providing information to customers, and conducting promotional activities to improve the use of the network assets by improving the power factor or the load factor
- providing contact telephone numbers for fault reporting, for example through bill inserts
- publicising reliability targets and communicating with network customers on reliability matters
- development of network tariffs
- communicating with customers on distribution matters, for instance, providing notice of planned interruptions
- educating the public on network-related electrical safety
- activities arising from the distribution business' obligations about the quality of supply.

Excluded from this cost category are:

- brand advertising
- corporate image making

- corporate/community sponsorships and donations
- communication internal to the business
- research and analysis of other distribution businesses
- contact with any Ombudsman
- advertising of retail services.

4.10 *Full retail contestability costs*

Operating costs attributable to the distribution business associated with transferring retail customers from franchise to contestable tariffs. Such costs include:

- the cost of establishing an interface with the centralised customer transfer system
- the cost of adjusting internal processes and systems
- full retail contestability project management costs
- additional operating expenditure, such as those costs associated with transfers.

4.11 *Other operating costs*

This category includes all other costs that are incurred in the provision of distribution services. For example, billing and revenue collection and regulatory costs will be included in this category.

If any component of this category exceeds five per cent of total operating costs, the description and dollar value of the component must be provided.

4.12 *Public lighting*

Services to provide for the lighting of public places, and in particular:

- the operation of public lighting assets, including handling inquiries and complaints about public lighting, and dispatching crews to repair public lighting assets.

Appendix 2

Definitions for retail businesses' reporting

Payment plans

- Number and percentage of customers who make payments under instalment payment plans.

Direct debit payment defaults

- Number and percentage of customers who default on direct debit payments.

Security deposits

- Number and percentage of customers who have lodged security deposits (residential and non-residential).

Disconnections/reconnections

- Number and percentage of customers disconnected for failure to pay amount due (residential and non-residential).
- Number and percentage of reconnections at the same premises in the same name within seven days (percentage of the relevant total number of customers disconnected for failure to pay amount due).

Customer complaints

- Total number of retail customer complaints.
- Number of account or 'billing' complaints (as a percentage of a total number of complaints).
- Number of 'other' retail complaints (as a percentage of total number of complaints) [can be deduced from previous data].

Telephone service and inquiries

- Number and percentage of telephone calls responded to within 30 seconds from when the customer connects to the complaint/inquiry number. [Note that being placed in an automated queuing system does not constitute a response].

- Average waiting time before a call is answered.
- Percentage of calls abandoned.
- Number of overload events.

Supporting information

- Customer numbers—total.
- Number of small retail customers.
- Number of domestic small retail and number of non-domestic small retail customers.
- Total number of telephone calls to a call centre or inquiry line.

Attachments

Attachment 1 **Distribution quality of service reporting template**

Attachment 2 **Distribution regulatory accounts reporting template**

Attachment 3 **Retailing quality of service reporting template**

Attachment 1

Distribution quality of service reporting template

(see 'Definition and notes' on p. 5 for definition of terms)

Reliability of supply

Sustained interruptions		Feeder category			
	Data set	**CBD**	**Urban**	**Rural short**	**Rural long**
SAIDI	Overall				
	Distribution network—planned				
	Distribution network—unplanned				
	Normalised distribution network				
SAIFI	Overall				
	Distribution network—planned				
	Distribution network—unplanned				
	Normalised distribution network				
CAIDI	Overall				
	Distribution network—planned				
	Distribution network—unplanned				
	Normalised distribution network				

Momentary interruptions (optional)		CBD	Urban	Rural short	Rural long
MAIFI	Distribution network				

Technical quality of supply

Complaints	**(#)**
Total number of technical QoS complaints	

Complaints by category	**(%)**
Low supply voltage	
Voltage dips	
Voltage swell	
Voltage spike	
Waveform distortion	
TV or radio interference	
Noise from appliances	
Other	

Likely cause of problem	(%)
Network equipment faulty	
Network interference by NSP equipment	
Network interference by another customer	
Network limitation	
Customer internal problem	
No problem identified	
Environmental	
Other	

Customer service

Timely provision of services		
Total number of connections provided	(#)	
Number not provided on or before the agreed date	(#)	

Timely repair of faulty street lights		
Average number of street lights 'out' during each month	(#)	
Faulty street lights not repaired before agreed date	(#)	
Average number of days to repair faulty street light	(#)	
Total number of street lights	(#)	

Call centre performance		
Total number of calls	(#)	
Number of calls not answered within 30 seconds	(#)	
Average waiting time before a call is answered	(secs)	
Percentage of calls abandoned	(%)	
Number of overload events	(#)	

Customer complaints		
Type of complaint		
Reliability of supply	(#)	
Technical quality of supply	(#)	
Administrative process or customer service	(#)	
Other	(#)	
Total number of customer complaints	(#)	

Business descriptors

Number of metered supply points

Feeder category	**Total no.**	**By type of customer**		**By supply voltage**		
		Residential	**Non-res.**	**ST**	**HV**	**LV**
CBD						
Urban						
Rural short						
Rural long						

Number of unmetered supply points (optional)

	CBD	Urban	Rural short	Rural long
Total no.				

Energy delivered (GWh)

Feeder category	**Total GWh**	**By type of customer**		**By supply voltage**		
		Residential	Non-res.	ST	HV	LV
CBD						
Urban						
Rural short						
Rural long						

Line length (km)

Feeder category	**Total km**	**Underground**	**Overhead**	**By supply voltage**		
				ST	HV	LV
CBD						
Urban						
Rural short						
Rural long						

Number and total capacity of transformers

	Number (#)	**Capacity (MVA)**
Subtransmission		
Distribution		

Distribution losses (%)		**Number of poles** (#)	
Network service area (sq. km)		**Peak demand** (MW)	

Attachment 2

Distribution regulatory accounts reporting template

(see appendix 1 for definition of terms)

Company name						
		Reporting period		Start date		
				End date		
	Major headings	**Ref no.**	**Input fields**	**(R/E)**		Regulated/excluded
Revenue (nominal $'000)						
Please indicate whether each revenue item is Regulated (R) or Excluded/Unregulated (E) in the column provided						
Network charges	Residential	1.1				
	Non-residential LV	1.2				
	Non-residential HV	1.3				To be provided only if network charges cannot be broken down into the required categories
	Non-residential ST	1.4				
	(Total network charges)					
Public lighting		1.5				
Customer contributions						
Other distribution services						
Profit from sale of assets	Gross sale proceeds					
	BV of assets sold					
Other revenue						
Asset values (nominal $'000)						
System assets	Sub-transmission lines	2.1				
	Distribution lines	2.2				
	Substations	2.3				
	Distribution transformers	2.4				
	Low voltage supply	2.5				
	Meters	2.6				
	Communications	2.7				
	Land & easements	2.8				
	Buildings	2.9				To be provided only if system assets cannot be broken down into the required categories
	Other system assets	2.10				
	Work in progress	2.11				
	(Total system assets)					
Non-system assets						
Public lighting						

Company name						
		Reporting period		Start date		
				End date		
	Major headings	**Ref no.**	**Input fields**	**(R/E)**	Regulated/excluded	

Capital expenditure and additions to fixed assets (nominal $'000)

1. Please provide additions to fixed assets if these are used to roll forward the regulatory asset base.
2. Customer contributions must be excluded if these are excluded from the regulatory asset base.

Please indicate whether you are providing capex (C) or additions (A) information for each period.

Indicate whether customer contributions are included in (In) or excluded from (Ex) the information provided for each period.

System assets	Sub-Transmission lines	2.1				
	Distribution lines	2.2				
	Substations	2.3				
	Distribution transformers	2.4				
	Low voltage supply	2.5				
	Meters	2.6				
	Communications	2.7				
	Land & easements	2.8				
	Buildings	2.9				
	Other system assets	2.10				
	Total system assets					
Non-system assets						
Public lighting						
Capital expenditure on system assets by purpose	Asset replacement	3.1				
	Demand related	3.2				
	Reliability and quality improvements	3.3				
	Environmental, safety and legal obligations	3.4				
	Full retail contestability	3.5				
	Other	3.6				

To be provided only if system assets cannot be broken down into the required categories

Capital expenditure projects should be classified according to the major reason for their approval rather than their effects.

For example, a project driven by growth may also improve the reliability of the network. However, the project should be classified as 'demand related'. Only additional expenditure incurred specifically to enhance reliability should be classified as 'reliability and quality improvements'.

Company name						
		Reporting period		Start date		
				End date		
	Major headings	**Ref no.**	**Input fields**	**(R/E)**		

Regulated/excluded

Depreciation nominal ($'000)

Current year depreciation charge						
Weighted average expected lives (years)	System assets	2.1	Sub-transmission lines			
		2.2	Distribution lines			
		2.3	Substations			
		2.4	Distribution transformers			
		2.5	Low voltage supply			
		2.6	Meters			
		2.7	Communications			
		2.9	Buildings			
		2.10	Other system assets			
			(Total system assets)			
	Non-system assets					
Weighted average remaining lives (years)	System assets	2.1	Sub-transmission lines			
		2.2	Distribution lines			
		2.3	Substations			
		2.4	Distribution transformers			
		2.5	Low voltage supply			
		2.6	Meters			
		2.7	Communications			
		2.8	Buildings			
		2.9	Other system assets			
			(Total system assets)			
	Non-system assets					

1. Assets should be weighted by their value before depreciation (e.g. replacement cost or optimised replacement cost).
2. Historic cost should not be used for long-lived assets, due to the distorting effects of inflation.

To be provided only if system assets cannot be broken down into the required categories

1. Assets should be weighted by their value before depreciation (e.g. replacement cost or optimised replacement cost).
2. Historic cost should not be used for long-lived assets, due to the distorting effects of inflation.

To be provided only if system assets cannot be broken down into the required categories

Indicate the depreciation methodology used (e.g. straight line etc) for each period.

If further explanation is relevant, please provide this as a note in the notes section at the bottom of this template.

Company name						
		Reporting period		Start date		
				End date		
	Major headings	**Ref no.**	**Input fields**	**(R/E)**		

Regulated/excluded

Operating costs (nominal $'000)

1. Corporate overhead costs should be allocated to the different activities as appropriate.
2. If some of the sub-categories cannot be provided, please include the costs in another category and provide an explanation in the notes below.

A. Network operating costs		4.1				
B. Network maintenance (NM) costs	Inspection	4.2				
	Maintenance & repair	4.3				
	Vegetation management	4.4				
	Emergency response	4.5				
	Other NM costs	4.6				
	(Total NM costs)					
C. Other costs	Meter reading	4.7				
	Customer service	4.8				
	Advertising & marketing	4.9				
	Full retail contestability	4.10				
	Other operating costs (specify items > 5% total opex)	4.11				
	(Total other costs)					
D. Public lighting		4.12				
E. Total corporate overheads included in cost categories A – D (optional)						

To be provided only if network maintenance costs cannot be broken down into the required categories

To be provided only if other operating costs cannot be broken down into the required categories

Excluding the cost of electricity purchase, if any

Related party transactions (nominal $'000)

Total value of related party transactions		*b*				

Notes

Attachment 3

Retailing quality of service reporting template

Information specification — the data shall be provided on an annual basis for the purposes of the regulatory alignment project although jurisdictional regulators may stipulate more frequent reporting.

Data field	Indicator or definition	To be analysed and provided as	Monthly	Quarterly (monthly data)	Annual
Affordability and access Note—data is to be disaggregated into business and residential customer. Data is for 160 MWH or below (200MWh in Qld).					
Payment plans	An instalment payment plan is defined for the purposes of this measure as: • an arrangement between a retailer and a customer for the customer; • to pay arrears and continued usage on their account; • according to an agreed payment schedule and capacity to pay.	Number and % of customers on instalment plans			✓
Direct debit payment defaults	Retailer may volunteer a definition but regulators will assess this having regard to the fact that it is intended as being a leading indicator for payment difficulties. It is likely that defaults or rejections in successive payment periods would be a minimum acceptable reporting standard.	Number and % of customers who default on direct debit payments			✓
Disconnections-reconnections in the same name	There are disconnection rules in each jurisdiction which define the conditions under which a customer can be disconnected. Reconnections—a reconnection is relevant where supply is re-established in the same name at the same premises within 7 days of the disconnection. The disconnection having been made for failure to pay an amount due.	Number and % of customers disconnected for failure to pay amount due. Number and % of reconnections at the same premises in the same name within 7 days of disconnection (% of total number of customers disconnected for failure to pay the amount due).			✓ ✓
Refundable advances — domestic — number	• The total number of domestic customers who have paid a refundable (security deposit) to secure connection or reconnection to supply. • Includes refundable advances paid by multi-residential customers.	% of customers paying refundable advances			✓

Data field	Indicator or definition	To be analysed and provided as	Monthly	Quarterly (monthly data)	Annual
Customer Service					
Customer complaints	Complaint is a written or verbal expression of dissatisfaction about an action, or a failure to act, or in respect of a product or service offered or provide by an electricity entity.	Number of retail customer complaints			✓
Billing or account complaints	All complaints to the account line or menu option. This will include but is not limited to: • difficulty in paying accounts • overcharging • prices • payment terms and methods • debt recovery practices.	As % of total complaints			✓
Other complaints	Deduced from previous data but one would expect it to come forward with some explanatory analysis of trends and categories. Includes any other complaints about the quality and timeliness of retail service.	As % of total complaints			✓
Telephone inquiries and service	This data relates to all customer contacts through the entity call centre, whether by operator or IVR system.	Number and % of calls responded to within 30 seconds from when a customer is connected to a complaint/inquiry line. Average waiting time before a call is answered. Number of overload events. % of call abandoned.			✓ ✓ ✓ ✓
Supporting Information					
Customer numbers	Customer—shall be regarded as equivalent to an account. Thus where there are multiple accounts in a single name, the number of accounts will be taken to be the number of customers.	Total residential Total business			✓ ✓
Customer inquiry and complaints	This shall include all calls to a call centre or inquiry line. This gives an insight into overall customer contact activity and the degree to which matters are or become complaints.	Total number of contacts with call centre or inquiry line.			✓