

PowerWater

2009 NETWORKS REGULATORY RESET

PRICING PRINCIPLES AND METHODS STATEMENT

1 JULY 2009 TO 30 JUNE 2014

JANUARY 2009

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1 Introduction

1.1 Purpose of this Document

This is Power and Water's Pricing Principles and Methods Statement for the third regulatory control period. This period commences on 1 July 2009 and ends on 30 June 2014.

1.2 Regulatory Requirements

Paragraph 6.3 to 6.5 set out the requirements upon Power and Water to prepare and submit this Pricing Principles and Methods Statement. These paragraphs reiterated the requirements of the Commission's Final Methodology Decision and are re-stated below.

The Final Methodology Decision required Power and Water's regulatory proposal to include a draft 'Network Pricing Principles and Methods Statement' to apply to the setting of individual network tariffs for direct control services.

Paragraph 6.4 stated that "as required by clause 75(5) of the NT Code, the Network Pricing Principles and Methods Statement must set out the details of the principles and methods to be used for establishing the reference tariffs to apply to individual network access tariffs."

Paragraph 6.5 noted that the Commission would approve the draft Network Pricing Principles and Methods Statement submitted by Power and Water if it is satisfied that the statement is consistent with:

- the applicable requirements of the Final Decision Paper;
- any applicable requirements of the NT Code; and
- clauses 6.18.3, 6.18.4 and 6.18.5 of the National Electricity Rules.

The Network Pricing Principles and Methods Statement must set out the details of the principles and methods to be used for establishing the reference tariffs to apply to individual direct control services. This Statement therefore applies to both standard control and alternative control services. The differences in treatments between the two types of services has been made clear in this Statement.

2 Principles and Methods Used in Establishing Tariffs for Standard Control Services

2.1 Amendments to Network Tariffs

By the end of the third regulatory period, Power and Water intends to charge contestable customers using one Northern Territory wide tariff schedule for peak and off-peak energy and peak and off-peak demand. This means that regional tariffs for contestable customers will be abolished.

Power and Water has adjusted 2008-09 network tariffs in order to converge as many tariff steps as possible, without:

- breaching the overall Po constraint, as determined by the weighted average price control calculation; or
- breaching the overall side constraints, except where this has been required by virtue of structural tariff change, as was the case for several tariff steps following the removal of the DKTL tariff.

The following amendments were made to the 2008-09 tariffs to derive the 2009-10 tariffs. Detailed tariff movements for all steps are shown in Attachment 2.

Firstly, Power and Water has removed the DKTL tariff for peak and off-peak energy, and increased the first step of the Darwin/Katherine network tariff schedules for peak and off-peak energy by 100%. It has done this because a separate DKTL tariff is no longer relevant. All other tariff steps have been increased by less than the allowed side constraint of 61.9%. Overall, revenue from Darwin/Katherine contestable customers is expected to rise by 62.3% between 2008-09 and 2009-10 as a consequence of these changes.

Secondly, Power and Water has converged the above 750 MWh Tennant Creek peak and off-peak energy, and peak and off-peak demand charges with the same tariffs for Darwin/Katherine. This results in a 22.3% increase overall in expected revenue from Tennant Creek contestable customers between 2008-09 and 2009-10. Power and Water has increased the system availability charge by the side constraint amount and will endeavour to converge this tariff sub-component over the course of the third regulatory period.

Thirdly, for Alice Springs above 750 MWh customers, Power and Water has converged those tariff steps which were within the allowable side constraint with the relevant Darwin/Katherine tariff steps. These were:

- the last two steps of the peak demand tariff component;
- all of the steps of the off-peak demand tariff component;
- the last two steps of the peak energy tariff component; and
- the last three steps of the off-peak energy tariff component.

Power and Water also:

- increased all below 750 MWh Northern Grid tariffs (domestic and commercial) by the allowed side constraint amount; and
- increased all below 750 MWh Tennant Creek and Alice Springs tariffs by the allowed side constraint amount.

Expected revenue from each tariff class is set out below.

| | 2008/09 Tariff Revenue \$M | 2009/10 Tariff Revenue \$M | Expected Change in Revenue |
|--|----------------------------|----------------------------|----------------------------|
| Northern Grid above 750 MWh | 13.1 | 21.3 | 62.3% |
| Alice Springs above 750 MWh | 2.3 | 3.7 | 60.1% |
| Tennant Creek above 750 MWh | 0.3 | 0.3 | 22.3% |
| Northern Grid below 750 MWh - commercial | 43.4 | 72.3 | 66.7% |
| Alice Springs below 750 MWh - commercial | 8.3 | 13.3 | 61.0% |
| Tennant Creek below 750 MWh - commercial | 2.3 | 3.7 | 65.1% |
| Northern Grid below 750 MWh - Domestic | 3.5 | 5.7 | 63.5% |
| Alice Springs below 750 MWh - Domestic | 0.8 | 1.3 | 64.3% |
| Tennant Creek below 750 MWh - Domestic | 0.1 | 0.1 | 64.3% |
| Northern Grid above 750 MWh - DKTL | 2.2 | 0.0 | |
| Northern Grid below 750 MWh - DKTL | 3.8 | 0.0 | |
| Total Revenue | 80.0 | 121.8 | 52.3% |

The overall change in network revenues is estimated at 52.3%. The weighted average price cap constraint increase (based on 2006-07 volumes) is calculated at 53.6% which is within the 56% Po constraint.

Power and Water's intention is to ensure that the revenues from tariffs are recovered from users in a manner that is understandable, practical, efficient and equitable, and which reflects their usage and benefit from the network.

To this end, Power and Water's establishment of new tariffs has been guided by the network pricing objectives laid down in clause 74 of the NT Code. Power and Water's interpretation of the NT Code's pricing objectives is as follows:

- cost reflective signals – that there should be appropriate signalling to network users of their impact on existing and future network capacity and costs;
- simplicity – that prices should be straightforward in application and readily understood by network users;
- stability – that prices should remain stable over time to permit customers to make informed investment decisions; and
- equity – that prices should be equitable for network users. Generally, this means that prices reflect the user's utilisation of the existing network.

As well as this, Power and Water is guided by the various tariff assignment principles and pricing principles set out in Chapter 6 of the Rules. The methods used by Power and Water to set its network tariffs against these principles are set out in the following sections.

2.2 Compliance with Clause 74 of the NT Code

Power and Water has taken account of clause 74 of the NT Code in the development of its network tariffs.

The need for cost reflective signalling is similar to the requirement in clauses 6.18.5(b) and (c) of the Rules, which require that tariffs be developed with regard to long run marginal cost. Power and Water's explanation as to how its network tariff development takes this into account is set out in section 2.4.1 of this Statement.

The need for tariff simplicity is met by Power and Water structuring its tariffs in a clear, transparent and easily understood way. Power and Water's explanation as to how its network tariffs have been structured is set out in section 2.3.1 of this Statement.

The need for stability is met by Power and Water establishing tariff structures and levels which meet the Commission's prescribed weighted average price cap constraint.

The need for equity is met by the gradual application of identical network tariffs across the Northern Territory to customers of similar characteristics. This is discussed in detail in section 2.3.1 below.

2.3 Compliance with NER Tariff Class and Assignment Principles

2.3.1 Compliance with Clause 6.18.3 – Tariff classes

Clause 6.18.3 of the Rules states:

- (a) A pricing proposal must define the tariff classes into which customers for direct control services are divided.*
- (b) Each customer for direct control services must be a member of 1 or more tariff classes.*
- (c) Separate tariff classes must be constituted for customers to whom standard control services are supplied and customers to whom alternative control services are supplied (but a customer for both standard control services and alternative control services may be a member of 2 or more tariff classes).*
- (d) A tariff class must be constituted with regard to:*
 - (1) the need to group customers together on an economically efficient basis; and*
 - (2) the need to avoid unnecessary transaction costs.*

Power and Water selected its tariff classes in 2000 prior to the first regulatory control period and other than to remove the DKTL tariff for 2009-10, has not modified these.

In relation to 6.18.3(a), Power and Water submits that its pricing proposal defines the tariff classes into which customers for direct control services are divided. These tariff classes provide for regional network prices which are separated into consumption bands that are above and below 750 MWh, then into peak and off-peak energy and demand respectively, and then into a number of steps.

With respect to 6.18.3(b), Power and Water submits that each customer for direct control services is a member of 1 or more tariff classes. There are no customers of Power and Water that are not attached to a tariff class.

With respect to 6.18.3(c), Power and Water submits that it has established separate tariff classes which must be constituted for customers to whom standard control services are supplied and customers to whom alternative control services are supplied. It has done this by establishing a tariff schedule for standard control services and a tariff schedule for alternative control services.

With respect to 6.18.3(d), Power and Water has established its tariff classes on a size, and then demand and energy basis as it considers that this is the most economically efficient and lowest transaction cost basis to do so. Over time, it intends to remove the geographical differentiation between customers as it does not consider that this provides any meaningful economic signalling.

The decision to move away from regional tariffs reflects a number of key considerations by Power and Water. Firstly, the imposition of Territory wide tariffs is not economically inefficient. While network tariffs in Tennant Creek have reduced relative to the Po as a consequence of the decision to create the new tariffs, this reduction is not material and is unlikely to signal behaviour to any extent. Moreover, the decision will impact on transaction costs for Power and Water, specifically the ongoing maintenance of multiple tariff schedules. Establishing NT wide network tariffs will eventually reduce the administrative costs for Power and Water.

2.3.2 Clause 6.18.4 – Principles governing assignment or re-assignment of customers to tariff classes and assessment and review of basis of charging

Clause 6.18.4 of the Rules states:

(a) In formulating provisions of a distribution determination governing the assignment of customers to tariff classes or the re-assignment of customers from one tariff class to another, the [Commission] must have regard to the following principles:

(1) customers should be assigned to tariff classes on the basis of one or more of the following factors:

(i) the nature and extent of their usage;

(ii) the nature of their connection to the network;

(iii) whether remotely-read interval metering or other similar metering technology has been installed at the customer's

premises as a result of a regulatory obligation or requirement;

(2) customers with a similar connection and usage profile should be treated on an equal basis;

(3) however, customers with micro-generation facilities should be treated no less favourably than customers without such facilities but with a similar load profile;

(4) a Distribution Network Service Provider's decision to assign a customer to a particular tariff class, or to re-assign a customer from one tariff class to another should be subject to an effective system of assessment and review.

(b) If the charging parameters for a particular tariff result in a basis of charge that varies according to the usage or load profile of the customer, a distribution determination must contain provisions for an effective system of assessment and review of the basis on which a customer is charged.

With respect to clause 6.18.4(a)(1), customers are assigned on the basis of usage and size. Remotely read interval meters are installed on all customer connections in excess of 750 MWh per annum.

With respect to clause 6.18.4(a)(2), customers in the Northern Territory with the same connection and usage profiles are treated on a similar basis.

With respect to clause 6.18.4(a)(3), Power and Water does not have customers with micro-generation facilities.

With respect to clause 6.18.4(a)(4), Power and Water does not reassign customers without careful review. Generally, reassignment only occurs in situations where a customer becomes contestable, and moves to a tariff class for customers using above 750 MWh per annum.

With respect to 6.18.4(b), Power and Water reviews and, if necessary, rebalances its tariffs each year and will continue to do so throughout each regulatory control period. It will do this within the side constraint set out in the Final Determination.

2.4 Compliance with NER Pricing Principles

2.4.1 Clause 6.18.5 – Pricing Principles

Clause 6.18.5(a) of the Rules requires that:

For each tariff class, the revenue expected to be recovered should lie on or between:

(1) an upper bound representing the stand alone cost of serving the customers who belong to that class; and

(2) a lower bound representing the avoidable cost of not serving those customers.

This pricing principle:

- does not require that the tariffs lie between an upper and lower bound – rather, it requires that the revenue to be recovered from a tariff class lie between an upper and lower bound. Power and Water understands that this part of Chapter 6 of the Rules was developed to:
 - reflect “the cost benefit trade-off between sending customised cost and price signals to individual customers and the impracticability of developing a tariff for each individual customer, particularly where individual customers have relatively small levels of demand”¹; and
 - allow DNSPs the flexibility to “set tariffs based on potential differences in the willingness to pay of different customers or groups of customers” and “provide prudent discounts to customers where it is efficient to do so”²;
- clearly allows for revenue for a tariff class to be the difference from the average costs of serving that tariff class – by “bounding” the costs that are allowed to be recovered from that tariff class; and
- provides that the stand-alone cost for a tariff class is the cost for Power and Water to provide distribution network services solely to customers in that tariff class. If there is only one tariff class in the network, the stand-alone cost is equivalent to the cost of the distribution network. In a network with two tariff classes, A and B, the standalone cost for tariff class A will be a fraction of the total cost of the distribution network.

For a distribution network, the stand-alone (or upper bound) costs must be the cost of running a new connection to every installation comprising the tariff class, which should be equivalent to the bypass cost. Calculation of this cost is not considered feasible. Instead, Power and Water has calculated stand-alone costs as the costs of serving all of the customers currently accessing services under that tariff class, if no other tariff classes were being served from Power and Water’s system. This is equal to the costs of installing and maintaining the shared network (which would be solely allocated to that tariff class) and the connection costs designated to that tariff class. It therefore does not include costs associated with shared and connection assets designated to other tariff classes. The amount recovered from a tariff class will always be less than this amount if there are multiple tariff classes within a region, which there are.

Power and Water calculates the avoidable (lower bound) costs of serving a tariff class as the total cost avoided if that tariff class was not served, while other tariff classes remained served. This is equal to the costs of the connection assets designated to that tariff class (shared costs are incurred irrespective of whether this tariff class is served or not). Given that the costs of connecting a customer are charged as fixed charges, any customer which accesses the shared network (i.e uses

¹ See Section 4.2.1 “Use of aggregate tariff revenues by tariff class”, page 23, *Distribution Pricing Rule Framework*, Network Policy Working Group Report, December 2006.

² Ibid, page 23.

energy) must pay more than the incremental cost. This is reinforced by the operation of the Capital Contributions Policy which ensures that customers which have a higher than average connection cost pay the shortfall between the connection cost and the expected tariff revenue. Power and Water does not consider that there are any customers which are supplied at less than incremental cost.

Clauses 6.18.5(b) and (c) of the Rules require that:

(b) A tariff, and if it consists of 2 or more charging parameters, each charging parameter for a tariff class:

(1) must take into account the long run marginal cost for the service or, in the case of a charging parameter, for the element of the service to which the charging parameter relates; and

(2) must be determined having regard to:

(i) transaction costs associated with the tariff or each charging parameter; and

(ii) whether customers of the relevant tariff class are able or likely to respond to price signals.

(c) If, however, as a result of the operation of paragraph (b), the Distribution Network Service Provider may not recover the expected revenue, the provider must adjust its tariffs so as to ensure recovery of expected revenue with minimum distortion to efficient patterns of consumption.

In relation to clause 6.18.5(b)(1), Power and Water has sought to ensure that its tariff structures and levels send the types of signals that are consistent with the principles of recovering LRMC. In order to do this, Power and Water has identified a number of general pricing principles which it considers are consistent with the concept of LRMC and has sought to apply these to its prices. These principles are set out in the Distribution Pricing Rule Framework, Network Policy Working Group Report in December 2006. That report:

- noted the importance of the basis of charging for the recovery of LRMC, by ensuring that tariff setting involves the identification and consideration of all available usage basis and associated charging parameters;
- set out a range of possible charging parameters, and corresponding bases for those charges, which were considered to reflect marginal cost; and
- noted that it is preferable that DNSPs have discretion to apply efficient pricing principles in determining charging parameters than for Regulators to prescribe them.

In developing its tariffs, Power and Water has structured the charging parameters to signal the impact that customers will have on the network, manage demand and volume variance risk, and avoid sending signals that could result in inefficient choices being made by customers of that tariff class. In this context:

- Power and Water’s fixed charges for each tariff send a signal to customers about the cost of their connection works and, when considered in tandem with the Capital Contributions Policy, sets a constant and foreseeable price for those customers which assist them in making a decision to connect with full visibility of the costs. The fixed charges also provide Power and Water with a fixed revenue source by which it can recover its costs and therefore ensure that upstream investment decisions can be made with clarity;
- Power and Water’s demand tariffs provide the principal signal to the customer of their utilisation of the network at peak times, which in turn signals Power and Water to invest in capital infrastructure. Demand components also send direct signals to those customers which do not use the system often, but demand a high percentage of network capacity when they do use the system; and
- Power and Water’s volume charges are designed to recover the costs of the shared network on a basis which reflects the characteristics of the network user.

Clause 6.18.5(b)(2) requires that:

A tariff, and if it consists of 2 or more charging parameters, each charging parameter for a tariff class...must be determined having regard to:

- (i) transaction costs associated with the tariff or each charging parameter; and*
- (ii) whether customers of the relevant tariff class are able or likely to respond to price signals.*

These requirements are discussed below.

Transaction Costs

Power and Water interprets this requirement (tariffs must reflect transaction costs) to mean that:

- the transaction costs are Power and Water’s transaction costs, not transaction costs of Power and Water Retail, or any other potential retailer, that Power and Water sells its distribution services to;
- “Transaction costs” are the “administrative costs of charging by (the selected)³ parameters”⁴, which are required to be balanced via a “trade-off between the cost of measurement and the benefits of charging on a given parameter basis”;⁵ and
- the requirement means that Power and Water must, in deciding whether to establish a new tariff, or establish how many parameters it will include within a

³ Clarification in brackets added by Power and Water.

⁴ See Section 5.2, “LRMC Pricing Standard”, page 33, *Distribution Pricing Rule Framework*, Network Policy Working Group Report, December 2006.

⁵ *Ibid*, page 34.

tariff, have regard to the costs of measuring the usage parameters and other elements of the charges to customers.

Power and Water has met this principle because the number and structure of its network tariffs have been established with reference to the transaction costs associated with that number and structure of tariffs. All of Power and Water's tariffs use standard usage and demand parameters which are readily measurable and provided by means of Power and Water's existing metering and information systems. In particular, Power and Water's decision to remove regional network tariffs over time, and to converge tariffs where possible, has been taken with regard for the reduction in administrative costs that this would provide, and in the interests of presenting a simple set of tariffs to customers over time.

Price Signals

In relation to the requirement that a network tariff's "fixed and variable charges" must have regard for whether customers of that tariff class are able or likely to respond to price signals, Power and Water is operating in an environment of partial retail contestability, with non-contestable retail tariffs "masking" many of the price signals provided to non-contestable customers. That said, Power and Water has sought to design tariffs and tariff structures which would be sufficient to send appropriate signals to customers in the event that:

- all customers were contestable; and
- Power and Water's distribution tariffs were "passed through" to customers without being "re-packaged" into retail tariffs.

2.4.2 Requirement to Adjust Tariffs to Recover Revenue

Clause 6.18.5(c) of the Rules requires that:

If, however, as a result of the operation of paragraph (b), the Distribution Network Service Provider may not recover the expected revenue, the provider must adjust its tariffs so as to ensure recovery of expected revenue with minimum distortion to efficient patterns of consumption.

Power and Water understands that:

- this clause applies if, as a result of the operation of principle 6.18.5(b), Power and Water expects not to recover its expected revenue for the upcoming year;
- the clause operates such that, when this under-recovery is forecast, Power and Water must adjust its network tariffs so as to ensure recovery of the expected revenue in a manner which causes minimum distortion to efficient patterns of consumption;
- prior to using this provision, Power and Water must consider a range of scenarios which could provide the necessary adjustment to tariffs to recover the revenue, noting the distortions to consumption patterns that would eventuate under each scenario; and

- select that scenario which adjusts revenue but which provides the minimum distortion.

Power and Water has met the requirements of clause 6.18.5(b) of the Rules and forecasts to recover its revenue requirement. As such, it is not necessary to use this provision of the Rules.

3 Principles and Methods Used in Establishing Tariffs for Alternative Control Services

Power and Water's proposed principles and methods for establishing prices for its alternative control services are consistent with its proposed control mechanisms.

3.1 Fixed Fee Services

Power and Water has set prices for its alternative control (fixed fee) services which reflect the costs of supply. It has done this by:

- estimating the time taken in hours for travel to and from Power and Water's depot for the identified service;
- estimating the time taken in hours to undertake and complete the works;
- estimating the number of staff required to undertake the works;
- developing prices for the services based on business hours or after hours where:
 - services in business hours were costed using an average labour rate (overheads inclusive) of \$51 per hour;
 - services after-hours were costed using an average labour rate (overheads inclusive) of \$76 per hour;
 - no allowance was made for trucks or capital equipment to deliver the service, as there is no practical basis for making such an allocation; and
 - a zero margin was included in the prices for all services. This means that only the full cost is being recovered.

The prices for these services are set out in the Alternative Control (Fixed Fee) Services Tariff Schedule.

3.2 Quoted Services

Power and Water will develop cost based quotations for above-standard connection services and other quoted services which cannot be set in advance given the uncertain nature of the works required.

These quotes will be developed on a transparent basis using the hourly rates for fixed fee services.

4 Framework for Negotiating Discounted Network Tariffs for Standard Control Services

4.1 Background

This section sets out the framework by which Power and Water will negotiate with users for discounts to the published network tariffs for standard control services. This negotiating framework does not apply to alternative control services.

4.2 Principles

The principles that will underpin the negotiation of discounted tariffs for standard control services are that:

- network access services have not been classified as negotiated services – they are therefore not subject to a negotiated services framework and the decision to offer negotiated network tariffs is entirely at the discretion of Power and Water;
- the nature of the negotiation process – and the respective rights of the various parties in that process – should be known to all parties in advance of any negotiations (transparency principle);
- any discount negotiated below the approved reference tariffs should be based on a common approach for all network users consistent with clause 74(b) of the NT Code (non-discrimination principle);
- any discount negotiated below the approved reference tariffs – and the negotiation process involved – should not discriminate between competitors in upstream and downstream markets (competitive neutrality principle);
- no other network user should be worse off as a result of any discount negotiated below the approved reference tariffs than would be the case were the discount not given; and
- the Framework should discourage excessive or frivolous applications for discounts.

4.3 Eligibility for discounts

No network customer is entitled to a discount other than where Power and Water considers that this is the case.

Power and Water will consider negotiating network tariffs in the following limited number of situations:

- where below-standard network access services sought by a particular end-use customer may result in cost savings to the network provider; or

- where, in Power and Water's sole opinion, there is a genuine threat of network "by-pass" by a particular end-use customer – either in whole or in part.

In the event that a user wishes to be considered for a negotiated tariff, the user must apply for a negotiated tariff in writing, in which it should advise Power and Water of its claim of eligibility against the criteria nominated above. The user will be responsible for the accuracy and completeness of the documentation so provided.

Power and Water may also, of its own volition, decide that a negotiated outcome is required without requiring information or an application from the user.

4.4 Negotiating process

Where a user, either for itself or on behalf of another user, applies to Power and Water for a discounted network tariff, Power and Water will treat that application as commercial in confidence.

Where more than one user applies for a discount on a particular user's behalf (for example, where multiple retailers apply for a negotiated network tariff on behalf of the same potential retail customer), Power and Water will negotiate with each user separately.

Different users may seek different standards of service. In this case, Power and Water will negotiate with each user on a non-discriminatory basis.

4.5 Quantum and Period of Discount

In the event that Power and Water, in its sole discretion, considers that a discount to the network tariff is warranted, Power and Water will meet with the user to negotiate the network tariff to be applied.

In the event that the basis of discounting is cost savings to Power and Water, the discount will be no more than the cost savings to Power and Water.

In the event that the basis of discounting is to avoid by-pass, the discount will be the minimum required to avoid the user adopting the (complete or partial) bypass alternative.

4.6 Role of the Regulator

Power and Water will provide to the Commission, by 30 June each year, details of all discounts negotiated in that year.

