IPART's Demand Management Consultation Group

Guidelines on the Application of the D-factor in the Tribunal's 2004 NSW Electricity Distribution Pricing Determination

INDEPENDENT PRICING AND REGULATORY TRIBUNAL
OF NEW SOUTH WALES

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1 INTRODUCTION

The Independent Pricing and Regulatory Tribunal (Tribunal) issued its NSW Electricity Distribution Pricing 2004/05 to 2008/09 Final Determination (determination) and Final Report (report) in June 2004. A key component of the Tribunal's determination was the introduction of a number of incentives to promote network demand management.

As noted in its report, the Tribunal considers that demand management offers significant advantages; in particular, it has the potential to relieve some network constraints. Demand management measures that reduce the peakiness of the demand for electricity could improve the utilisation of distribution network service provider's (DNSPs) assets and lower DNSP's capital expenditure. The Tribunal's demand management incentives are targeted at measures which produce these outcomes.

The Tribunal's determination provides relatively generous incentives to DNSPs to undertake demand management; the Tribunal considers that this level of incentive is required, at least in the short-term, to help overcome the barriers to greater use of demand management and to support the emergent market for these solutions.

While providing incentives to the DNSPs to undertake demand management, the Tribunal will ensure that customers are not asked to pay more than they should. The Tribunal will be requiring the DNSPs to submit information demonstrating how the demand management projects they have implemented reduce network expenditure. Therefore, the DNSPs must demonstrate to the Tribunal that its demand management implementation costs are less or equal to the avoided distribution costs before it can pass through any costs to customers.

As part of its determination, the Tribunal has introduced a D-factor into the weighted average price cap control formula that allows DNSPs to recover:

- approved non-tariff-based demand management implementation costs, up to a maximum value equivalent to the expected avoided distribution costs (as defined in the determination)
- approved tariff-based demand management implementation costs
- approved revenue foregone as a result of non-tariff-based demand management activities.

The Tribunal also decided that it would establish working groups:

- on the calculation of distribution revenue foregone as result of demand management activities
- to examine the treatment of demand management in DNSPs' network planning processes
- to develop an appropriate methodology for valuing loss management investments.

In late October 2004, the Tribunal established the demand management consultation group to develop principles and guidelines on: avoided distribution costs, forgone revenue, loss management investments and network planning. The terms of reference and objectives of the consultation group were limited to developing principles and guidelines to give effect to the demand management incentives outlined in the Tribunal's final determination and report. The consultation group included representatives from: the DNSPs in NSW, industry, Government and user/consumer groups.

In December 2004, the Tribunal released draft versions of the guidelines and note for public consultation. The Tribunal held a public workshop on 10 February 2005. In deciding on the final content of these final guidelines, the Tribunal considered submissions received.

The final guidelines set out principles and methodologies for: calculating avoided distribution costs, estimating foregone revenue, and assessing the economic value of loss management investments in the context of the Tribunal's determination and the D-factor regime. It should be noted that the avoided distribution costs and foregone revenue guidelines are only relevant to non-tariff-based demand management projects.

The network planning note discusses the treatment of non-network projects and demand management within DNSPs' network planning processes.

2 CALCULATION OF AVOIDED DISTRIBUTION COSTS

The avoided distribution costs guideline is intended to provide clarity to DNSPs and demand management service providers on how the Tribunal would evaluate avoided distribution costs consistent with the determination and the D-factor regime. While the avoided distribution costs parameter is not explicitly included in the D-factor formula, its calculation is important as it sets a cap on the amount of non-tariff-based network demand management implementation costs which can be passed onto consumers through the D-factor regime.

The report notes that non-tariff-based demand management implementation costs are the costs incurred by DNSPs in changing the behaviour of end-users, using measures other than tariffs, to reduce end-use demand for electricity or affect the timing or source of consumption. Such costs could include, for example, the administrative costs of running energy efficiency programs, education or information costs, the cost of providing incentives to participants, the costs of contracting demand management service providers and embedded generation projects. In order for these costs to be approved under the D-factor the DNSPs will need to demonstrate to the Tribunal that the demand management measure is aimed at reducing network expenditures which should reduce electricity demand at peak times to defer the need for network augmentation.

3 METHODOLOGY FOR ESTIMATING FOREGONE REVENUE

The foregone revenue guideline sets out principles for estimating revenue foregone as a result of implementing a non-tariff-based demand management measure consistent with the determination and D-factor regime. The Final Report notes that the Tribunal considers the direct assessment approach is an appropriate method to calculate foregone revenue.

4 METHODOLOGY FOR ASSESSING ECONOMIC VALUE OF LOSS MANAGEMENT INVESTMENTS

The loss management investment guideline is intended to provide DNSPs and associated service providers with clarity on how the Tribunal would assess the prudence of loss management investments when determining the regulatory asset base. The report re-affirms the Tribunal's position that prudent loss management investments should be rolled into the regulatory asset base and economic loss management investment should not be optimised out of the regulatory asset base.

The attached guideline is limited to providing a methodology to calculate the value of loss management investments consistent with the Tribunal's determination and report. It does not contemplate the costs of such investments. The guideline does not consider wider loss management issues or incentives to undertake investments to reduce network losses, beyond recognising prudent loss management investments in the regulatory asset base.

5 NETWORK PLANNING

The network planning note summarises the consultation group's analysis, findings and recommendations regarding the DNSPs' network planning processes and their treatment of non-network projects and demand management. The consultation group concluded that a guideline on network planning processes was unnecessary at this time given the number of legal and regulatory requirements which impact on the DNSPs' planning processes. However, the consultation group endorsed releasing the attached note which outlines a number of recommendations, including potential actions by the Tribunal and stakeholders in the future.

6 CHANGES MADE TO THE DRAFT GUIDELINES

The Tribunal made three major changes in finalising these guidelines:

- The Tribunal considered that to further promote demand management projects and increase investment certainty it is willing to provide a preliminary assessment on whether the DNSP's approach to estimating avoided distribution costs is reasonable prior to a project being implemented. Such an assessment would be at the DNSP's request and would provide an advance indication of the Tribunal's assessment on the reasonableness of the DNSP's approach to estimating avoided distribution costs within the context of the D-factor. However, this assessment would only be preliminary and would not constitute formal approval of the estimates itself as this occurs during the D-factor process. It would, however, provide the DNSP with comfort that its approach is reasonable.
- The Tribunal considered that to further promote demand management projects and increase investment certainty it is willing to provide a preliminary assessment on whether the DNSP's approach to estimating foregone revenue is reasonable prior to a project being implemented. Such an assessment would be at the DNSP's request and would provide an advance indication of the Tribunal's assessment on the reasonableness of the DNSP's approach to estimating foregone revenue within the context of the D-factor. However, this assessment would only be preliminary and

would not constitute formal approval of the estimates itself as this occurs *ex post* during the D-factor process once **actual** forgone revenue can be calculated. It would, however, provide the DNSP with comfort that its approach is reasonable.

- The intent of the demand management incentives included in the 2004 determination is to promote measures which target the deferring of network expenditure. This is borne out by the D-factor approval process where before any non-tariff demand management implementation costs can be passed onto consumers, the DNSPs must demonstrate that the project has led to avoided distribution costs which exceed the implementation costs. The avoided distribution costs and foregone revenue guidelines have been changed to make the guidelines consistent with the intent of the 2004 determination. That is, for a project to be considered for approval under the D-factor, the DNSPs must demonstrate the link between the measure and a reduction in network expenditure. In the majority of cases the Tribunal will require the DNSP to submit an independent expert's report to verify its claims.

7 IMPLEMENTATION

The Tribunal has endorsed the attached guidelines in the context of the 2004 network pricing determination and the demand management incentives it established. The guidelines are not intended to place binding obligations on the DNSPs, but provide greater clarity to the DNSPs and service providers as to the regulatory treatment of non-tariff-based demand management projects in the context of the 2004 network pricing determination and the D-factor regime. By clarifying the regulatory treatment of non-tariff-based demand management projects, the guidelines should assist in promoting demand management solutions, particularly those addressing network constraints and peak demand.

The guidelines set out principles, approaches and methodologies which the Tribunal consider are appropriate for calculating the respective parameters in the context of the 2004 network pricing determination. The Tribunal will have regard to the guidelines when evaluating DNSP's proposals and information during the 2004-2009 regulatory period.

It should be noted that under the D-factor approval process outlined in the 2004 determination the onus is on the DNSPs to submit information satisfying the Tribunal that the demand management measures are authentic non-tariff-based network projects, and that estimates for avoided distribution costs and foregone revenue are the best available – demonstrating the reasonableness of these estimates may require independent expert advice.

The Tribunal may up date these guidelines from time to time and it will consider what information it will make available to the public as projects are assessed and approved under the D-factor (subject to data confidentiality constraints).

The Tribunal will also consider whether a review of the guidelines or note, or the demand management incentives included in the 2004 network pricing determination is warranted after the revised framework for demand management has been given time to establish and demand management projects have been assessed under the D-factor regime in 2006 and 2007[1].

[1] It should be noted that no changes can be made to the determination itself until 2009.