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Prof Tom Parry
Chairman
Independent Pricing and Regulatory Tribunal

Dear Prof Parry

Electric Power Consulting Pty Ltd Submission “Form of Economic Regulation for NSW Electricity Network Charges”

Introduction

We have prepared this submission as independent consultants with a wide client base across Australia including both network owners and electricity customers.

We wish to raise what we consider are important issues that have not been addressed in the IPART discussion paper. The issues that are important to us concern the long term performance of the electricity distribution networks and delivery of standards of supply that are essential to meet customer needs.

The Existing Revenue Cap Mechanism

The existing revenue cap system comprises components for the recovery of:

1. Economically efficient operating costs.
2. Depreciation.
3. A rate of return based on a suitable WACC applied to the Optimised Depreciated Replacement Cost of network assets.

In our view this revenue cap mechanism needs updating to encourage network owners to make essential network investments and ensure customers receive the quality and reliability of supply they need in the long term.

What are the Existing Business Drivers?

Unregulated businesses make investment decisions based on the returns they are likely to receive from their investments. Good investments can return very high rates of return whereas poor decisions result in low or even negative returns. Clearly in the unregulated sectors, survival and the opportunity to do well is governed by a business's ability to make high quality investments. This is the market system providing the drivers to make quality investments.

Under Australian electricity network regulatory regimes, regulatory determinations are the necessary replacement for a market system. The existing system does provide some positive drivers for good business behaviour. The main positive drivers are:

1. Improvements in economic efficiency will lead to a greater portion of the revenue cap flowing into profits.
2. The optimisation process in the network asset valuation procedure provides strong incentives not to overcapitalise the network. Optimisation is effective because it denies network owners a rate of return and depreciation on installed over capacity.

Key Issues that need to be Addressed in a New Revenue Determination Structure

In our view the key issues that existing regulatory arrangements are not addressing well and are not providing suitable business drivers are:

1. Under investment in network capacity leaving customers exposed to significant risk.
2. Reliability of supply.
3. Quality of supply.
4. Network losses.

Under Investment in Network Assets

In our view the existing regulatory arrangements provide inadequate incentives for network owners to provide sufficient redundant (N-1) capacity in their networks to cater for credible contingencies. The risks associated with lack of redundant capacity can lay dormant for years without causing major problems but when problems occur the community and customer impacts can be disastrous. These risks need to

be managed. Network owners, IPART and customers need to know the nature and the magnitude of these risks.

Reliability of Supply

Although having a solid network is an important aspect of achieving high customer reliability there are many other aspects that impact on customer reliability including staff levels, staff training, telecommunications systems, depot locations, internal job despatch systems, plant/vehicles, control room arrangements and general organisational efficiency. Many of these activities come out of operational budgets. Achieving reliability in line with customer expectations requires carefully targeted capital and operating expenditure.

In our view regulatory arrangements need to provide incentives to achieve sufficient levels of reliability.

Quality of Supply

Key quality of supply measures are:

1. Voltage levels.
2. Harmonics.
3. Voltage unbalance.
4. Sags.
5. Transients.
6. Flicker.

In our view incentives above and beyond existing code compliance need to be put in place to reward network owners for providing high levels of power quality that provide real benefits to customers. We consider sampled surveyed quantities to be the best measures to be used in suitable incentive scheme.

Network Losses

In our view the existing regulatory arrangements provide inadequate incentives for network owners to reduce network losses. With the cost of network losses being borne by retailers and passed directly through to enduse customers, the existing regulatory arrangements provide no incentive for network owners to manage and reduce losses on their

networks. This results in poor drivers for investment decisions and is likely to result in increased losses over time.

These arrangements are unsatisfactory from a number of perspectives including:

1. Environmental/green house impacts.
2. Aggregate total delivered customer electricity costs.
3. Optimised development of the network.

A Strategy for Implementing new Business Drivers

In our opinion, implementing new key business drivers is essential in maintaining the health of the network businesses and meeting the long term needs of customers. All businesses need drivers that make them focus on the important issues. In our view, IPART have a key role in going beyond their past methods of revenue cap determinations to encourage sound network investments and effective operating expenditures.

Our view is that in this process IPART should not tell the distributor how to achieve the desired results but should judge the distributors on independently measured results.

We propose that the rate of return component of revenue cap be adjusted up or down each year in accordance with transparent rules and measures related to identified deficiencies in redundant network capacity, measured reliability of supply, measured quality of supply and measured network losses. We further suggest that the necessary measurements be independently acquired on predetermined methodologies set by IPART in consultation with the distributors, MEU and other parties.

The method of measurement and the level of incentive that needs to be applied to each measure needs to be given very careful consideration. IPART should set the level of revenue cap incentive per unit of improvement based on the value network customers will receive from the improvement.

Under this proposal, the rate of return component of the revenue cap could be determined at the end of each calendar year to apply to the financial year beginning on the 1st July of the following year. Under this approach network owners would be subject to commercial drivers on a continuing basis and IPART would receive regular feedback on the performance of the networks under their jurisdiction.

Conclusions

If the regulatory drivers continue in their present form it is our concern that NSW networks and other Australian electricity networks could fail to deliver what customers need in terms of reliability, power quality and network losses over the long term. Our major concern is the prospect of networks being starved of essential network augmentations.

To encourage essential cost effective investments in NSW electricity networks and encourage the distributors to focus on actions that will result in clear benefits to network customers it is proposed that incentive formulas be developed to adjust the rate of return component of the revenue cap. It is further proposed that formulas be based on independent measurements and assessments of identified deficiencies in redundant network capacity, measured reliability of supply, measured quality of supply and measured network losses. We have clear ideas on what the incentive formulas should be and how they should be developed.

As part of this process, we propose that IPART not direct the distributors on how to achieve the desired results but allow the distributors to achieve best practice in their own way with judgment being made only on independently measured results.

Yours Faithfully,

Dr Robert Barr
Director
Electric Power Consulting Pty Ltd