

**CitiPower**

**Submission to Productivity Commission**

**In Response To:**

**The Office of the Regulator-General, Victoria,  
*Submission to the Productivity Commission:  
REVIEW OF THE NATIONAL ACCESS REGIME  
(PART IIIA OF THE TRADE PRACTICES ACT) Position Paper***

**August 2001**

## **I. Introduction**

The Office of the Regulator General (ORG) has recently presented a submission to the Productivity Commission on the Commission's Position Paper *Review of the National Access Regime (Part IIIA of the Trade Practices Act)*. CitiPower would like to respond to several of the ORG's comments, particularly on the merits of "building block" and "external" approaches to CPI-X regulation and the relationship between building block CPI-X regulation and rate of return regulation. CitiPower has already addressed some of these points in greater detail in previous reports and regulatory submissions. Where relevant, we will refer the Commission to CitiPower documents that analyse these issues in greater depth.

## **II. ORG's Response to the Commission's Concerns**

In its position paper, the Commission identified a number of problems with the building block approach to CPI-X regulation. These included:

- the need to forecast future costs and validate capital expenditure; this often leads to regulatory micromanagement
- building block methods are information intensive and intrusive
- price caps based on building blocks tend to merge into rate of return regulation

The ORG's submission does not really address the first dot point - the need for cost forecasts in building block methods. Indeed, some passages of the ORG's submission suggest that it believes that cost forecasts are essential to CPI-X regulation. For example, it claims "...the defining feature of CPI-X regulation is that price controls are set at the commencement of the regulatory period based on the assumptions about the revenue requirements for the period...", (p.6). Even if these revenue requirements reflect the costs of "an efficiently operated business," the ORG's approach clearly assumes that cost projections will be made over the price control period. "Assumptions about revenue requirements" going forward inevitably involve cost forecasts. CitiPower agrees with the

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Commission that using cost forecasts as the basis for regulated prices is problematic and has generated considerable controversy in the U.K. and other places where it has been tried. The ORG's submission does not address the Commission's concerns on this critical issue.

The ORG does dispute that building blocks are necessarily more information intensive than external regulation. It says that both approaches use similar data on "inputs" and "outputs". It also states that, when total factor productivity (TFP) is used in U.S. regulation, it often requires data going back to the 1960s, and such extensive data are generally not available in Australia.

CitiPower has addressed the data needs for external regulation in our report to the Regulators' Forum, *Incentive Regulation and External Performance Measures: Operationalising TFP-Practical Implementation Measures*. We refer the Commission to this paper for a more detailed discussion on the information demands of external regulation and building block regulation. Here, we wish to emphasise two points.

First, TFP trends require only historical data to be computed. This fact alone limits information burdens. Historical data are known and verifiable. Unlike the building block approach, there is no need to *create* forward-looking data for each year of the price control period. Even if both approaches use the same inputs and outputs, generating future values for the various inputs and outputs requires a considerable amount of auxiliary and supporting data. None of this information is required under external regulation.

Second, the statement that U.S. TFP measures require data going back to the 1960s is misleading. In U.S. proceedings, such distant data is used only to construct capital stock measures via a perpetual inventory equation. This approach could not be followed in most Australian states, for legislation requires these capital stocks to be set at regulatory asset values that are established by law. Accordingly, there is no need to "build up" a capital stock using 30 or more years of data on capital additions. Other than this single measure, the TFP trends used in North American price cap plans typically use only 8-10 years of historical data.

The ORG also disputes that building block approaches tend to merge into rate of return regulation. It says two factors distinguish these regulatory systems: the commitment not to reopen the price controls for a fixed number of years; and the efficiency carry-over mechanism. The ORG claims that these features of the building block approach create stronger incentives than rate of return regulation. The ORG also faults the Position Paper for not supporting its contention that building blocks tend to merge into rate of return regulation with “informed and balanced analysis” (p.15).

CitiPower agrees with the Position Paper. We also believe careful examination of the features listed by the ORG reveals that these factors do not necessarily distinguish rate of return regulation from building block, CPI-X regulation.

First, there are numerous examples of rate of return regimes that are in place for fixed periods. U.S. Commissions have “frozen” rates for as long as 10 years. Moreover, some of these Commissions have explicitly ruled that extended rate freezes are an example of rate of return regulation.<sup>1</sup> Other U.S. states have also operated under regular, three-year rate case cycles where rates were set at regularly scheduled three-year intervals. Some U.S. regulators who administered these plans have stated that the only effective difference between these plans and the ORG’s five-year building block approach was the fact that the ORG reset rates every five years rather than every three years.<sup>2</sup>

The ORG’s submission also misinterprets the actual practice of rate of return regulation. The ORG states that rate of return regulation (RoR) creates poor incentives because regulators stand ready to reexamine a company’s rates whenever higher than expected profits are observed. However, this is not how RoR has traditionally been practised in the United States, which has the most extensive history with RoR. The U.S. experience is documented in a seminal article by Paul Joskow.<sup>3</sup> Dr. Joskow writes:

Contrary to the popular view, it does not appear that regulatory agencies have been concerned with regulating rates of return per se. The primary concern of

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<sup>1</sup> For example, see the Massachusetts Department of Telecommunications and Energy, D.T.E. 98-27.

<sup>2</sup> See the September 21, 1998 letter from Dan Fessler to John Tamblyn, available on the Office of the Regulator General website.

<sup>3</sup> Joskow, P. (1974), “Inflation and Environmental Concern: Structural Change in the Process of Public Utility Price Regulation”, *Journal of Law and Economics*.

regulatory commissions has been to keep nominal prices from increasing. Firms which can increase their earned rates of return without raising their prices or by lowering prices (depending on changing cost and demand characteristics) have been permitted to earn virtually any return that they can. Formal regulatory action in the form of a rate of return review is primarily triggered by firms attempting to raise the level of their rates or to make major changes in their rate structure (p. 298).

Dr. Joskow also provides evidence on how often rate reviews have typically taken place for electric utilities. He examined 132 US electric utilities over the 1958-1972 period and documented the number of formal rate of return reviews over this 14-year period. He found that 44 companies had no rate reviews during this time, 41 companies had one rate review, and 34 companies had two rate reviews. Thus 119 of these 132 companies had no more than one rate review, on average, every 7 years. This is less frequent than review of electricity distribution prices in Victoria. The ORG says that incentives result from not reexamining a company's allowed rates. If so, then this evidence shows that incentives under historical RoR are at least as strong as those under building block, CPI-X regulation.<sup>4</sup>

CitiPower also disagrees that efficiency carry-over mechanisms can never be observed in rate of return regulation. In fact, many similar types of incentive plans have been approved under rate of return regulation. The efficiency carry-over is an example of a "targeted" cost incentive plan that has a long history in U.S. rate of return regulation. In a 1986 survey, Drs. Joskow and Schmalensee identified at least 36 targeted incentive mechanisms.<sup>5</sup> These plans focused on specific cost or performance areas such as construction costs, generator performance, or operation and maintenance expenses. These plans are similar to the efficiency carry-over in that they compare a company's performance to established targets on the selected cost or performance areas. If the company's performance is superior to the targets, it can be rewarded.

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<sup>4</sup> The trends noted by Dr. Joskow did break down in the high inflation 1970s, but similar trends have emerged in the 1980s and 1990s for many U.S. utilities.

<sup>5</sup> Joskow, P. and R. Schmalensee (1986), "Incentive Regulation for Electric Utilities", *Yale Journal of Regulation*.

Since the Joskow and Schmalensee survey, other targeted incentive plans have been approved under RoR regimes that are even more similar to the efficiency carry-over. One example is the MERIT plan approved for Niagara Mohawk Power in 1992.<sup>6</sup> This plan compared the growth in the company's comprehensive unit cost to the growth in unit cost for a peer group of Northeastern electric utilities. The company could be rewarded if it kept its growth in cost below that of the peer group. The company's performance was evaluated and rewards were distributed over a multi-year period. This plan is similar to the efficiency carry-over in that the cost target is fairly broad and comprehensive. Arguably, the MERIT plan creates even stronger performance incentives since company performance is compared to an external peer group rather than the company's previous forecasts for different types of expenditures.

While targeted cost incentive plans have been approved under U.S. rate of return regulation, CitiPower is not aware of any such plans approved for U.S. companies operating under CPI-X regulation. We do not find this to be surprising, for price-based CPI-X regulation using external standards is designed to provide comprehensive and balanced incentives. CitiPower believes the efficiency carry over mechanism is designed to correct flaws in the building block method that ultimately stem from its cost of service, RoR character. We believe the fact that similar targeted cost incentive mechanisms can be found in traditional rate of return regulation supports this view.

### **III. Consistency of External Regulation with Commission's Pricing Principles**

The ORG also contends that external regulation may not be consistent with the general pricing principles the Commission has espoused. In particular, the ORG believes the Commission should consider whether external regulation is consistent with the principle that prices not be "so far above costs as to detract significantly from efficient use of services". The implication apparently is that periodic application of building block methods will be needed to prevent prices from being "so far above costs".

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<sup>6</sup> Comparable plans were also approved for New York State Electric and Gas and Rochester Gas and Electric.

CitiPower addressed this issue in our previous submission to the Commission. We support the use of earnings-sharing mechanisms (ESMs), at least during the initial application of external CPI-X regulation. ESMs are explicitly designed to keep the relationship between costs and prices within specified bounds. Our previous submission describes the use of ESMs in external regulation in some detail. We believe that ESMs can be very useful in enabling external regulation to be put on “automatic pilot” without reverting to building block reviews.

#### **IV. ORG’s “Practical Reasons” for Rejecting External Regulation**

The ORG states that it had previously considered external CPI-X regulation but rejected the approach for “practical reasons”. The stated practical concerns are the lack of robust historical data, difficulty in adjusting for differences in operating conditions, a requirement to use regulatory asset values, and the mandates of the legal and regulatory regime.

CitiPower responded in detail to these points in our submission to the ORG paper *2001 Electricity Distribution Price Review: Finalising the Framework*. We refer the Commission to this submission for a more detailed discussion of these points. Here, we would like to address only the related issues of the regulatory asset values and the ORG’s legal mandates.

The ORG previously claimed that its legal mandates require some consideration of company-specific costs. For example, on p.9 of *Finalising the Framework*, it says:

Clause 5.10 of the *Tariff Order* explicitly specifies the value of fixed assets applicable to any determination drawing on such a parameter. This direct reference to a licensee-specific component of costs indicates that the architects of the framework did not have in mind a requirement for prices to be determined exclusively on the basis of external benchmarks.

Several points about this clause are noteworthy.

First, we disagree with the ORG’s interpretation. The statement above does not mention an important proviso in the Clause, which is that fixed asset values must be used only “where the value of the assets has to be taken account”. This phrase leaves open the

possibility that it is *not* necessary to take asset values into account. In other words, this clause simply does not say that the prices for an individual DB must be linked explicitly to the regulatory asset values that are established.

We believe this linkage is not explicit because the mandated use of regulatory assets was motivated by government objectives for regional price equity, *not* a desire to link each DB's prices to its costs. The government's objective is stated clearly in the Department of Treasury document *Reforming Victoria's Electricity Industry*, which explains why specific initial values for DB regulatory assets were chosen.

Government policy has been to ensure minimal differentials in delivered electricity prices between similar customers in metropolitan areas and rural and farm customers. This has been principally achieved by the following measures:

- writing down the value of assets in rural areas in the two rural based DBs (Eastern Energy and Powercor); and
- writing up the value of assets in the three metropolitan DBs by a corresponding amount to the rural asset value write down.

The asset write down is equivalent to a substantial once-off subsidy to rural and farm customers, ensuring electricity pricing parity with urban customers.<sup>7</sup>

These statements clearly demonstrate that regional pricing objectives led to the required use of specific asset values. The Treasury document does not claim that the fixed asset values are needed so that DB prices reflect their own costs. Indeed, asset values are adjusted precisely to ensure that prices *diverge* from actual costs in order to achieve other public policy goals. In light of this, the *Tariff Order's* reference to the DBs' 1 July 1994 asset values is not properly interpreted as a mandate for each DB's prices to track its own costs. Rather, the Clause should be viewed as a requirement not to overturn the government's original policy goal when updating DB price controls.

In this regard, it must be recognised that the use of the regulatory asset values is consistent with external benchmarks. TFP trends for the industry can be estimated using

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<sup>7</sup> Office of State Owned Enterprises, Department of the Treasury, *Reforming Victoria's Electricity Industry*, Section 10.5, December 1994, p. 81.



these asset values. The estimated trend for the industry can then be used to calibrate the X-factor. This would respect the original policy since initial subsidies to rural customers, as reflected in the adjusted asset values, would not be eliminated from rates.

## **V. The Need for Further Investigation**

In several places, the ORG suggests that many practical issues associated with implementing external regulation require further investigation. CitiPower concurs completely. We have long advocated a cooperative approach between regulators and industry that addresses these practical issues thoroughly and systematically. Indeed, our report to the Regulators' Forum, *Incentive Regulation and External Performance Measures: Operationalising TFP-Practical Implementation Measures*, was designed to be a starting point for these discussions and further investigation. CitiPower fully supports any effort that objectively evaluates the merits and feasibility of external regulation.