I S S U E S P A P E R

REGULATED INDUSTRIES COMMISSION

Determining the Length of the Regulatory Control Period

1. Background

Incentive based price controls, such as those implemented by the Regulated Industries Commission, require the use of a multi-year control period. It is the only way that ensures that the incentives included in such a regime are effective. **Section 48 of the RIC Act specifies that the RIC shall review the principles for determining rates and charges every five years or, where the licence issued to the service provider prescribes otherwise, at such shorter interval as it may determine**. In its Final Determination for the electricity transmission and distribution sector for the period 2006-2011, the RIC chose to implement a five-year regulatory period. The RIC's position was that a five-year regulatory period was appropriate, as it struck a balance between providing incentives for improving efficiency, reducing regulatory uncertainty and allowing sufficient time for a State-owned service provider to improve its performance. However, by choosing a regulatory period of five years or less there is the risk that a service provider will focus its efforts on short term gains, rather than on innovative actions that will lower costs in the long term.

Purpose of this Document

As part of the second price review process, the RIC intends to assess the merits of a five-year control period, as well as assess whether extending the length of the price control period could bring additional benefits for customers.

Structure of Document

This document is divided into two sections. Section 1 provides a brief introduction to the issues and Section 2 describes some of the advantages and disadvantages of a longer term price control versus a shorter control period. It also provides a brief overview of the length of the control period utilized by other regulators and the RIC's own experience with a five year price control.

Responding to this Document

All persons wishing to comment on this document are invited to submit their comments. Responses should be sent by post, fax or e-mail to:

Executive Director

Regulated Industries Commission

Furness House – 1st & 3rd Floors

Cor. Wrightson Road and Independence Square
Port-of-Spain, Trinidad

Postal Address: P.O. Box 1001, Port-of-Spain, Trinidad

Tel. : 1(868) 625-5384; 627-7820; 627-0821; 627-0503

Fax : 1(868) 624-2027

Email : ricoffice@ric.org.tt

Website : www.ric.org.tt

All responses will normally be published on the RIC's website unless there are good reasons why they must remain confidential. Any requests for confidentiality must be indicated. A copy of this document is available from the RIC's website at **www.ric.org.tt.**

2. Determining the Length of the Price Control Period

A cornerstone of incentive regulation is that the length of the regulatory period must be long enough so that the firm can implement initiatives to reduce cost and enjoy the resulting profits for a reasonable length of time. If this were not the case, the firm would have no incentive to reduce costs since gains would be immediately returned to customers. On the other hand, the longer the regulatory period, the longer customers must wait to share in the benefits of out-performance. Additionally, the longer the price control period the greater the likelihood that cost differentials would arise, especially in a highly uncertain environment which may allow a firm to make profits or losses well over those anticipated by the regulator. A regulator must therefore weigh the advantages of a longer term price control over a shorter period.

The RIC's regulatory duty entails setting price controls that allow the service provider to finance efficient investments, cover efficient operating costs and earn an appropriate return on investment whilst delivering specified outputs, inclusive of quality of service standards. The RIC had established a five-year control period for the electricity transmission and distribution sector for the period June 1, 2006 to May 31 2011. The RIC's position was that the five-year control period provided adequate opportunity for the service provider to earn profits during the period by finding ways to increase efficiencies and thereby reduce expenditure. In essence, it represented the RIC's commitment to the service provider that it could keep any gains that it made for five years[1]. Additionally, since the pricing framework is set for the duration of the control period, it can be argued that it reduces regulatory risks and provides built-in safeguards for reducing uncertainties.

Broadly, some of the key advantages of a longer term price control include the following:

- **Promote value for money over the longer term** – It has been argued that a service provider would take greater care in ensuring that it does not jeopardize its financebility if its planning horizon both for network investment and anticipating customer needs were longer than the typical five year period favoured by many regulators.

[1] This was reinforced by the efficiency carryover mechanism which was instituted as part of the determination as well.

- **Greater incentives to improve performance** – The longer a firm is able to retain efficiency gains the greater the incentive to achieve improvements. Additionally, this may, over the long run, reduce the firm's expenditure requirements.
- **Lower administrative costs** – If price reviews are undertaken less frequently it is likely that administrative costs will also fall. However, this would be offset to some extent by the fact that more resources may be needed to closely monitor the firm's performance between price reviews.
- **Lower regulatory risk** – the longer a price control period, in essence, the longer the regulator commits to the rules of the game. This can be perceived as lower regulatory risk and in developed countries where networks are financed both by debt and equity, it can lead to lower overall financing costs.
- **Innovation and dynamic efficiency** – a longer price control period may encourage firms to seek innovative solutions to improve efficiency and thus it promotes dynamic efficiency[2].
- **Certainty over investment programme** – as the price control review is used to establish the future investment programme, a longer price control period may enable the investment programme to be updated in a timely manner.

On the other hand there are a number of disadvantages[3]:

- **Risks of perceived windfall profits/losses** – A longer period gives rise to an increased risk of forecasting errors and therefore greater possibility that the firm's costs may actually be much lower or higher, especially in the latter years of the price control period, giving rise to the possibility of windfall profits/losses.
- **Customers will have to wait longer to enjoy the benefits of the cost reductions** made by the firm – A longer lag between price reviews translates into a longer wait time before cost savings can be passed to customers.

[2] Dynamic efficiency is concerned with the optimal rate of innovation and investment to improve production processes which reduce costs over the long term (i.e. reduces long run average costs).
[3] Longer price controls might bring problems for a regulator's workflow (and also that of the regulated firm), since there would be longer periods without price reviews followed by what might be more intensive periods of work. This could make it more difficult to retain skilled staff and preserve corporate memory.

- **Greater scope for prices to become out of line with costs** – The basis for economic regulation lies in the fact that firms which are monopolies are not to be allowed to exploit customers by extracting monopoly rents. The longer the control period the greater the scope for the prices of the regulated firm to become out of line with costs. Moreover, if price controls are reviewed less frequently it is more likely that current prices will move further away from marginal costs. Hence, longer price reviews pose greater risks to allocative efficiency.
- **Possibility of price hikes/falls following price reviews** – The longer the period between price reviews, there is increased likelihood that there will be greater changes in price when a new review takes place. Any large upward movement will be unwelcome by customers and may even reduce stakeholder confidence in the regulatory regime.
- **Risks of reopening the price control** – The longer the control period the greater the likelihood that problems could arise that may make it necessary to re-open the price control. This could limit the incentive to reduce costs if firms anticipate such a re-opening.
- **Reduced adaptability of the regime** – The longer the period between price reviews the longer the regulator must wait to institute changes that can improve aspects of the regime or mend defects.
- **Financeability risks** – As indicated above, the longer forecasting horizon may increase the risk that the firm's revenues will be out of line with its costs. This will increase the risk that the firm will not be able to meet its commitments and may lead to increased financing costs.

Some of the short-comings listed above can be mitigated by the use of certain secondary controls in the overall price control formula. These can vary from ways to pass benefits quickly to customers or more importantly to re-openers in respect of the price control. An example of the former can be found in Ofgem's [4] price controls for electricity distribution for the period 2010-2015 whereby for every £1 unanticipated cost reduction that a firm makes, the saving is shared between investors and customers. This entitlement can be passed through in the form of reduced prices in the current price review or in the form of a rebate that offsets other costs when setting

[4] The Office of Gas and Electricity Markets (Ofgem) regulates the gas and electricity networks in Great Britain.

the next price control. An example of the latter would be the "ship wreck" clauses favoured by some UK regulators to deal with the general financial difficulties of a company. The RIC favoured the use of a trigger mechanism[5] in T&TEC's price control for 2006-2011.

3. Regulatory Precedent

In general it seems that a price control period of four to five years finds favour with most regulators, particularly for network monopoly activities. This is the norm of regulatory regimes used in the UK and in the majority of European and Australian cases. Although, there is some evidence that sectors subject to more competition tend to have shorter price control periods than largely monopolistic sectors, it is difficult to draw definitive conclusions about why particular regulators choose particular lengths of price control. Ofwat[6] which initially set a ten year price control period for the water and sewerage industry in England and Wales has consistently set five year price controls, which it believes sets an appropriate balance between stability and incentives for the regulated firms. Ofcom[7] in its 2009 review of leased lines charges agreed to a three year price control but indicated that a four year period would strike the right balance between providing sufficient incentives and ensuring that consumers enjoy the benefits of those efficiency gains. PostComm[8] in its 2006 review of Royal Mail Price Control utilized a three year price control for Royal Mail. Ofgem in its most recent review of electricity distribution companies utilized a five year price control. In Australia, the Essential Services Commission set a five year price control for the regulation of electricity networks (distribution) for the period 2006-2010[9].

In Jamaica and Barbados the experience has been very similar to the regulators in the United Kingdom. The Office of Utility Regulation (OUR) in its last tariff review for the Jamaica Public Services Company (JPSCo) for the period 2009-2014 utilized a five year price control. In

---

[5] A trigger event is one which can affect the commercial viability of the service provider and applies if it imposes a total annualized cost of more than 1% of revenue.

[6] The Water Services Regulation Authority (Ofwat) is a non-ministerial government department, which regulates the water and sewerage industry in England and Wales.

[7] The Office of Communications (Ofcom) regulates the communications sector in the United Kingdom.

[8] The Postal Services Commission (Postcomm) regulates postal services in the United Kingdom.

[9] The control ran from 1, January 2006 until December 31, 2010.

Barbados, the Fair Trading Commission (FTC) opted for a Price Cap Plan that was actually three years and eight months long for the regulated telecommunication service for Cable and Wireless (C&W)[10]. The FTC felt that a three year control period was appropriate and included the extra eight months to align the price control period with C&W's financial reporting period.

There have been some exceptions to the perceived norm of three to five years. Ofgem's regime for offshore electricity transmission involved a competitive tender and allowed the successful tenderer a twenty year revenue stream subject to some adjustments but no periodic review during that time. Additionally, independent gas transporters are subject to a ten year price control period within some upper and lower limits. In the USA it is not unheard of to have ten and even twenty year price controls in gas and electricity distribution. Similarly Pakistan has also had a seven year price control in electricity distribution.

4. RIC's Experience with a Five-Year Price Control

The RIC continuously monitors T&TEC's performance *vis a vis* forecasted revenues and expenditure and for the period June 1, 2006 - May 31, 2010, T&TEC's actual expenditure exceeded forecast expenditure by approximately eight percent (8%) and revenue collection was just about half a percent (0.5%) under the RIC allowed revenue requirements. However, key reasons for increased expenditure included increased contributions by T&TEC to the Pension Scheme and increased depreciation charges due a change in the accounting treatment of leases. The RIC has already taken a decision to pay particular attention to the issue of pension costs in the second control period.

Overall the RIC considers that its forecasts were reasonable and there has been no cause to reopen the existing price controls. T&TEC's financial performance has improved over the period of the current price control and the current length of the price control period has posed no risks in this regard.

[10] The plan runs from August 1, 2008 – March 31, 2012.

5. Arguments in favour of a longer control period – do they hold in the local context?

As noted above, there a number of arguments in favour of a longer control period. Some regulators have observed that five year controls have led service providers to focus their efforts on improving performance within this period rather than over the longer term. Consequently, the benefits of long term planning could be lost, resulting in lower value for money.

Regulators generally agree that the longer a service provider is able to keep the benefits of out-performance the greater the incentive to achieve improvements and cost saving. Thus, the level of efficiency gains that are achieved may be greater and outcomes are better. Longer periods also foster greater innovation on the part of service providers and a greater inclination "to think outside the box" when seeking solutions. Longer control periods also limit the scope for ex-post efficiency adjustment as the regulator commits to a particular regulatory regime for a longer period and thus reduces regulatory risk and uncertainty.

Indeed, Ofgem has argued in favour of longer control periods and has maintained that while not all problems will be solved, service providers are likely to have a greater incentive to ensure that they do not undertake any action that can jeopardize their financebility given that a full review may only be scheduled once every eight or ten years (and hence their planning horizon is longer). It also believes by allowing firm's to keep the benefits of outperformance for a longer period that this spurs innovation. It also reduces the scope for distortions by the firm by not engaging in regulatory games. Additionally, it also reduces the cost and time associated with frequent comprehensive reviews.

While the above arguments may hold true in instances where the service provider is privately owned and controlled, the RIC's own experience in regulating state-owned and controlled entities has demonstrated that such firms make little attempt to anticipate customer needs and to deliver value for money through innovative cost cutting efforts. Moreover, it is often the RIC that has prodded the service providers under its purview to change their systems to facilitate customers. Thus, the RIC is not inclined to believe that the benefits, in terms of innovation and value for money, anticipated by longer term controls will materialize in the local context.

The RIC is also concerned that longer term controls also pose many of their own risks. For example, if outputs are not achieved and appropriate safeguards are not built into the regime then recourse could be delayed for eight to ten years depending on the new length of the control period. Very importantly as well, implementation of controls that are greater than five years will also require major changes to the regulatory framework, thereby increasing the complexity of the regulatory regime. For example Ofgem has noted that some of the changes would include:

- provisions (rules and policies) to adjust target/output requirements;
- calibration of upfront efficiency incentives;
- an increase in the number and complexity of the uncertainty mechanisms; and
- avoiding unnecessary delays to revenue adjustments.

5. Conclusion

A regulator needs to strike a balance between providing appropriate incentives for the regulated firm and not creating too great a risk of excessive gains or losses, a risk that increases with the length of the price control period. The RIC believes that the forecasts made for the five year current price control were reasonable and the service provider's financial well being was not jeopardised by the length of the price control period. Overall the RIC considers that a five year price control period strikes an appropriate balance between risks and the ability to undertake costs savings. In fact, for strongly monopolistic sectors a price control of at least five years is seen by most regulators as balancing the need to provide a sufficiently long period for service providers to identify and achieve efficiency savings, while not risking setting price controls that lead to windfall gains or losses for service providers and customers. Moreover, the RIC is constrained by its Act to a period of five years or shorter and hence it is not possible to utilize a period longer than five years. The RIC therefore is inclined to continue the use of a five year price control.

The RIC seeks comments on the appropriate length of the next regulatory period.