

# Determining the Length of the Regulatory Control Period

December  
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As a part of its Price Review process, the RIC takes a closer look at the factors that impact the length of the price control period, its own experience in this regard and will assess whether extending the length of the price control period is relevant within the local context.

Consultative  
Document

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# **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, a regulatory period of less than five years has a risk, in that the service provider may focus its efforts on short term gains, rather than on innovative actions that will lead to lower costs in the long term.

## **1.1 Purpose of this Document**

As part of the price review process, the RIC intends to assess the merits of a five-year control period, as well as explore the impacts of extending the length of the price control period and to examine what is best suited for the local electricity transmission and distribution sector for the next regulatory control period.

## **1.2 Structure of this Document**

This document is divided into several sections hereafter. Section 2 describes some of the advantages and disadvantages of a longer term price control versus a shorter control period. Section 3 provides a brief overview of the length of the control period utilized by other

regulators and Section 4 considers the RIC's own experience with a five year price control and finally, Section 5 presents the RIC's views on the way forward.

### **1.3 Responding to this Document**

All persons wishing to comment on this document are invited to submit their comments.  
**Comments close at 4.00 pm on January 26, 2018.**

Responses should be sent by post, fax or e-mail to:

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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](http://www.ric.org.tt)**.

## 2. Determining the Length of the Price Control Period

The price control period is the specified time over which the utility is expected to execute what has been set out in its business plan which is submitted to the regulator for price setting purposes. Over this period, the utility will be allowed to recover sufficient revenue such that it provides quality service to its customers and can meet its efficient costs.

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 costs 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 outperformance. Additionally, longer price control periods mean a greater likelihood that cost differentials may arise, especially in a highly uncertain environment. A regulator must therefore weigh the advantages of a longer term price control over a shorter period.

Certain economic principles are at the core of any determination on the length of price control including creating incentives for productive efficiency, pricing for allocative efficiency and innovating to encourage dynamic efficiency<sup>1</sup>. The application of these principles give rise to pros and cons that can be considered further when deciding on an appropriate length of price control.

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 financeability if its planning horizon both for network investment and anticipating customer needs were longer than the typical five year period favoured by many regulators.
- **Greater incentives to improve performance** – the longer a firm is able to retain efficiency gains the greater the incentive to achieve improvements (productive

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<sup>1</sup> Productive efficiency is about finding lower cost ways of service delivery. Allocative efficiency is concerned with making the best use of scarce resources to maximize the benefit to the utility and customers. Dynamic efficiency is concerned with the optimal rate of innovation and investment to improve production processes which reduce long run average costs. In short, it is the development of new and more efficient ways of doing business over time.

efficiency), as the firm can keep these gains for a longer period before they are potentially clawed back by the regulator. Additionally, over the long run, this may 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.
- **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. There is greater stability for investment planning by reducing the impact of capex cycles.

On the other hand there are a number of disadvantages:

- **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.
- **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 reopening.
- **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.
- **Impact on workflow of regulator and utility** - A longer control period can create 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 institutional memory.
- **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 options 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 seen in Ofgem's<sup>2</sup> 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

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<sup>2</sup> The Office of Gas and Electricity Markets (Ofgem) regulates the gas and electricity networks in Great Britain.

between investors and customers. This entitlement could be passed through in the form of reduced prices or in the form of a rebate that offsets other costs when setting 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<sup>3</sup> 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<sup>4</sup> 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 strikes an appropriate balance between stability and incentives for the regulated firms.

In its 2014 review of mobile call termination market, Ofcom<sup>5</sup> utilized a three year price control and has now proposed a similar three-year review period from 2018-2021. This is indicative of the rate of technological progress in the telecommunications sector which lends itself to shorter control periods, and which has also facilitated the growth of competition in that sector. and.

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<sup>3</sup> 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.

<sup>4</sup> The Water Services Regulation Authority (Ofwat) is a non-ministerial government department, which regulates the water and sewerage industry in England and Wales. The most recent price control period spans 2015-2020.

<sup>5</sup> The Office of Communications (Ofcom) regulates the communications sector in the United Kingdom (UK).

In 2013, Ofgem introduced RIIO<sup>6</sup> as the new approach to establishing price controls to replace the previously used RPI-X approach. Essentially, RIIO remains a revenue-cap approach and builds upon the RPI-X platform by providing greater performance incentives. One of the main changes however, is a move towards a longer regulatory control period of eight (8) years, with a provision for a mid-period review of output requirements in the event of any major changes. The argument for the longer period is that it allows utilities to retain cost savings for a longer period and to make investments that have a longer payback period, incentivizing long-run infrastructure enhancement.

The Australian Energy Regulator (AER) has adopted five-year control periods for electricity transmission and distribution sectors. The current control period for water utilities regulated by the Essential Services Commission (ESC) of Australia also spans a five year period (2013-2018) and the ESC is presently consulting on the suitability of a similar five-year period going forward, with a determination due by mid-2018.

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) utilized a five year price control for the period 2014-2019. In Barbados, the Fair Trading Commission (FTC) opted for a three-year Price Cap Plan that runs from April 2016 to March 2019, which governs the adjustment of rates of regulated telecommunication services of Cable and Wireless (Barbados) Ltd<sup>7</sup>.

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

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<sup>6</sup> RIIO is **R**evue set to deliver strong **I**ncentives, **I**nnovation and **O**utputs and was implemented in 2013 by Ofgem for gas and electricity transmission markets. RIIO was implemented for the electricity distribution market in 2015.

<sup>7</sup> The previous Plan was initially set for a three-year period from April 2012 to March 2015 however, in November 2014, the period was extended by one year, to expire in March 2016.

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'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 then was that the five-year control period provided adequate opportunity for the service provider to earn profit by reducing expenditure through efficiency improvements. In essence, it represented the RIC's commitment to the service provider that it could keep any gains that it made for five years<sup>8</sup>. 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.

The RIC continuously monitored T&TEC's performance *vis a vis* forecasted revenues and expenditure. For the period June 1, 2006 - May 31, 2011, T&TEC's actual expenditure exceeded forecast expenditure by approximately five percent (5%) and revenue collection was just about half a percent (0.5%) under the RIC allowed revenue requirements<sup>9</sup>. However, key reasons for increased expenditure included increases in employee costs, as a result of new salary agreements that came into effect during the period, increased contributions by T&TEC to the Pension Scheme and increased depreciation charges due a change in the accounting treatment of leases.

Overall the RIC considers that its forecasts over the first control period were reasonable and there was no cause to reopen the price controls that were in effect. T&TEC's financial performance

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<sup>8</sup> This was reinforced by the efficiency carryover mechanism which was instituted as part of the determination as well.

<sup>9</sup> T&TEC did not take up the rates for residential customers at the start of the control period. Residential rates were increased in 2009 while Commercial and Industrial customers saw increases at the start of the control period.

improved over the period of the first price control and the length of the price control period posed no risks in this regard.

## **5. Applicability of longer or shorter controls within the local context.**

Regulators generally agree that the longer a service provider is able to keep the benefits of outperformance the greater the incentive to achieve improvements and cost saving. Thus, the level of efficiency gains that are achieved may be greater and outcomes may be 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. Hence, many regulators are considering or have already moved to longer control periods.

Indeed, Ofgem has argued in favour of longer control periods and have implemented an eight-year review period quite recently. They 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 financeability given that a full review may only be scheduled once every eight or ten years (and hence their planning horizon is longer). The thinking is that by allowing firm’s to keep the benefits of outperformance for a longer period that this spurs innovation. Additionally, it also reduces the cost and time associated with frequent comprehensive reviews.

A shorter control period facilitates a more adaptable regulatory regime and one that reduces the risk of the utility making windfall profits/losses. However, some regulators have observed that shorter control periods 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. This is a very important consideration for electric and water utilities which are characterized by long-lived assets that

together make up a network that is expected to provide continuous service to current and future customers.

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. 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 under the current governance frameworks.

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/recovery could be delayed for a longer period. The RIC has also considered the impact of utility pricing regimes on the domestic economic and social climate. Given the near historical performance and projections for the domestic economic climate, the length of the control period should provide a level of certainty and stability for commercial and investment purposes. The RIC will examine the importance of conducting timely Price Reviews in a separate paper.

The RIC Act states that the principles for determining rates should be reviewed every five years or shorter intervals, if so prescribed by service provider licenses. There is some flexibility to utilize a control period that is shorter than five years, however, the current Act is rigid that the period of control should not exceed five years. Therefore, implementation of controls that are greater than five years will require major changes to the RIC's legislative and regulatory framework, thereby increasing the complexity of the regulatory regime.

## **6. 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 first

regulatory control period were reasonable and the service provider's financial well being was not jeopardised by the length of that 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, therefore, at this time, it is not possible to utilize a period longer than five years. The RIC is of the view that a five year price control remains the most suitable option for the sector at this time.

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