REGULATED INDUSTRIES COMMISSION

Establishing an Appropriate Form of Price Control

July

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As part of the second price control review, the RIC intends to revisit the forms of price control that are consistent with an incentive framework so that the RIC makes an informed decision whether to continue with the current approach. The document is also intended to highlight the key strengths and weaknesses of the alternative approaches.

Consultative Document

1. Overview

The Regulated Industries Commission (RIC) Act, Chapter 54:73, sections 6, 47 to 52 and 67 provides that the type of overall regulation utilized by the RIC be some form of incentive regulation. However, it is free to utilize any form of price control that it chooses. The form of price control is the high level structure adopted to establish price controls. The specific form of control can take several different variations. In its first price review for the electricity transmission and distribution sector, the RIC reviewed the three primary forms of incentive regulation[1] that met the requirements of the Act namely:

- Price Caps;
- Revenue Caps; and
- Hybrid forms of control.

The RIC's final decision was to utilize a fixed revenue cap.

Purpose of Document

As part of the second price control review, the RIC intends to revisit the forms of price control that are consistent with an incentive framework so that the RIC makes an informed decision whether to continue with the current approach. The document is also intended to highlight the key strengths and weaknesses of the alternative approaches.

Structure of Document

The rest of this report is structured as follows:

Section 2 briefly outlines the various forms of price control which can be used under incentive regulation and evaluates their suitability for use *vis a vis* certain assessment criteria.

[1] These forms of price control are alternatively known as ex-ante price controls. A rate of return price control can also be classified as an ex-ante price control.

Section 3 evaluates the performance of the current fixed revenue cap that is in place for the electricity distribution and transmission sector in Trinidad and Tobago and presents recommendations.

Responding to this Document

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Section 2. Forms of Price Control

As noted, the RIC is constrained by its Act to pursue incentive regulation. However, it does have a choice as to the specific form of control that it can utilize. Broadly the form of control can be either a revenue or price based control or a combination of both. Where a revenue-based control is used, the regulated firm will have an implied price over the period of the control. Where a price-based control is preferred, the firm will have an implied revenue over the period of the control. A regulator can also have additional controls to the primary price control. These can include correction mechanisms that adjust the primary control for unexpected changes in demand, cost or even quality of service requirements. This Section briefly examines the main characteristics of the primary forms of incentive based price controls and then evaluates these against specific assessment criteria.

2.1 Introduction

Under its Act, the RIC's core functions include:

- ensuring that an efficient service provider (SP) can carryout and finance its functions;
- undertaking studies of economy and efficiency;
- setting and monitoring standards; and
- establishing the principles and methodologies for determining rates and charges, that is, reviewing and determining price controls.

With respect to establishing price controls or price limits, the most fundamental aspect of setting price limits is deciding the form of that price control.

2.2 Objectives for assessing the form of Price control

Before a regulatory regime can be established, a regulator must first determine the objectives for that regime. In the case of the RIC, these objectives are embodied in the RIC Act and include:

- **ensuring the long-term viability of an efficient SP** - that is, the ability to create stable revenue flows for an efficiently operated SP.
- **the protection of consumers –** that is, its consequent impact on customers through stability of prices (and household bills).

These can be broken down further as:

- ensuring viability;
- full cost recovery (that is, how the regime mirrors the cost structure of the SP);
- economy and efficiency; and
- ability to pay.

Ideally a regulatory regime should create simple clear incentives to cut costs rather than create gaming incentives. This means a simple and effective regulatory regime, as opposed to one with numerous additional rules to counter the perverse incentives created by the initial regime, thus leading to a regime that is bureaucratic and intrusive.

The regulatory regime exposes the SP and customers to certain risks and the form of control impacts on the way these risks are allocated between them. Risks arise because of potential differences between forecasted and actual costs and quantity demanded.

2.3 Forms of Price Control

Form of control refers to the high level structure for setting price controls. It involves different elements including:

- what is controlled (prices or revenues);
- how the price or revenue is controlled (e.g. individual price caps or tariff baskets);
- length of the period of control; and
- link between inputs and outputs.

However, it does not cover the method of assessing the revenue required nor the recovery of that revenue via the tariff structure.

The length of the regulatory period and whether or not a specific level of service (S-factor)[2] is to be explicitly expressed within the Price Control formula are discussed in separate papers and will not be discussed here.

2.3.1Price Caps

Price caps can be either in the form of a series of separate individual price controls (Pure Price Caps) on the individual prices of the regulated firm which are independent of any total revenue requirement or a weighted average price cap (tariff basket). Some even include a third category; Pure Price Caps with triggers.

In order to establish a Price Cap, estimates of future costs and demand are established, usually for a period of five (5) years. A forward looking price per unit is then set, which is consistent with the estimated Revenue Requirement. The price is then allowed to rise (or fall) in line with inflation less an adjustment factor known as the x-factor (based on expected efficiency gains). Hence, the formula is referred to as RPI-X, since prices are held constant in real terms except for the efficiency adjustment.

Individual or Pure Price Caps

Individual price caps are helpful where there are few products involved or limited fixed or common costs. Where this is not the case, it requires significant judgment as to the allocation of costs to the individual products. Individual price caps, also known as pure price caps, provide an incentive to meet increasing levels of demand as long as the marginal cost of supply is lower than the marginal revenue associated with increased service provision. Of course, this incentive can dampen efforts at demand management unless alternative measures are put in place. Additionally, while they promote price stability they can result in revenue instability if demand

[2] The S-factor is just one method for incorporating quality of service within the overall price setting regime, others include guaranteed standards.

is volatile. This will in turn impact on the volatility of the profit stream. Under this particular form of control, the SP bears all risks and may have to bear a higher cost of capital. However, there are strong incentives to cut costs once the length of the price control is long enough, but there is also the possibility of gaming the estimates of both costs and demand on the part of the SPs. In fact, estimation of costs is a problem of all price mechanisms based on RPI-X.

Weighted Average Price Caps (Tariff Baskets)

The weighted average price cap or tariff basket form of price control limits price increases on the basis of a weighted average of the prices of a basket of services. The firm faces a cap on this weighted average price, which changes over time on the basis of a 'RPI - X' formula. Service providers are able to increase some prices by more than others (known as rebalancing) within the basket, provided that the weighted average increase in prices is within the overall cap. In setting the weighted average price, the weights can be by volume (sales) or value (revenue) and the weights may be fixed by reference to the base year of the price control or they may reflect actual quantities with a lag, thereby breaking the link between allowed revenue and the volume. Under tariff basket controls the company has some flexibility in the pricing as the individual tariffs in the basket can be adjusted as long as the maximum limit on the basket is not exceeded. However, the regulator can include certain regulatory constraints on this flexibility if there are concerns that certain groups may be taken advantage of if left to the service provider. There are also concerns that a tariff basket approach to price controls can also encourage demand.

Price Caps with Triggers

Price Caps with Triggers are similar to pure price caps, except that when certain specified variables move outside a certain range, it triggers a price review. For example, a trigger can be specified as an increase or decrease in demand by more than twenty (20) percent above or below the forecast level. The other generally used variable is movements in the per unit cost.

This form of control is commonly used in concession agreements, for example in New Guinea. Even in the United Kingdom at privatization of the water industry a shipwreck clause was included. The shipwreck clause allows companies, or the regulator, to seek an interim determination if circumstances beyond the companies' control change such that the total impact

on the company amounts equal to 20% of turnover. This is broadly equivalent to a 2% change in price limits. This form of control also provides similar incentive effects as an individual price cap.

2.3.2 Revenue Caps

Under a **pure** (or **fixed or total**) revenue cap[3], the firm's revenues are limited to a fixed amount and the cap is subject to annual adjustment for inflationary effects and productivity gains. Fixed revenue caps can be applied at the level of a service basket, service classification or an entire business and they provide discretion to the utility to set charges within the cap. A revenue cap provides the SP with a guaranteed level of income and thus reduces revenue risk.

There are a number of benefits, for example, this form of cap does not provide incentives to pursue new customers or increase sales once the cap is reached. Hence, the ability to make additional profits through mis-forecasting demand is removed. Further, while there is no causal link formed between costs and revenues, it allows for flexibility in tariffs in order to reflect changing costs. Arguably, if costs remain in line with the allowed revenue requirements, it can assure a SP a steady profit stream, which can lead to a lower cost of capital. Under this form of control, prices can be more volatile as compared with a price cap, and it also transfers a greater portion of risks to customers in terms of demand forecasting errors. Fixed revenue caps also create incentives to overestimate capital expenditure over the control period and to delay (between the control periods) undertaking investment.

Often fixed revenue caps are supplemented by a correction mechanism. In its simplest form this mechanism would apply corrections at the end of the price control period and in advance of the following period. Alternatively, a symmetric mechanism could be applied where revenue allowances alter annually during the control and correct for both under or over recovery of

[3] Some authors also include a category known as dynamic revenue controls or variable revenue caps. These controls permit revenue to change given changes in particular parameter. Such controls are not the same as flexible revenue caps, where prices are set on a per unit basis based on assumptions about the level of demand.

revenue. In the final instance an asymmetric correction mechanism can be applied where revenue is corrected for only one type of deviation.

Flexible revenue caps (i.e. average revenue cap or revenue yield) allow total revenue to vary in line with the change in some underlying variable (the growth in customer base or any other variable). Broadly speaking, this form of regulation imposes a cap on the maximum revenue that a utility is permitted to earn per unit of output. Under this form of control, revenue varies directly with output, and the cap is allowed to vary over different time periods in line with the RPI-X formula. Since the average revenue per unit is constant, there is an incentive to minimize costs and increase output, as there is no limit to the total revenue that a firm can generate.

2.3.3 Hybrid (Price/Revenue)

A hybrid revenue cap is another type of revenue cap that can be utilized. As the name suggests it is a combination of an average revenue cap and a total or fixed revenue cap, that is, part of the total revenue is fixed while part is allowed to vary with output. Usually, the extent to which the revenue allowance varies with volume will reflect the extent to which underlying costs vary with volume. Under this approach the regulated firm has flexibility in setting its prices, including the ability to determine the split between fixed and variable costs. This form of control is obviously intended to marry the advantages of both a fixed revenue cap and a flexible cap and thus shares some of their shortcomings. For example, under a hybrid control there is more risk sharing between a SP and customer, since the fixed component in the formula reduces the sensitivity of revenue to changes in the volume of units while the variable component reduces the level of price fluctuation compared to a revenue cap, thereby dampening the level of price fluctuations. Moreover, establishing the breakdown between what should to classified as fixed or variable costs depends on a subjective decision as to the nature of the incurred cost, the length of the price control and the degree of control that companies can exercise over these costs. It thus adds to the complexity of the price setting process. It also provides sufficient incentives to maximize efficiency gains.

2.3.4 Comparison of Alternatives

The following table outlines some of the key characteristics of different Forms of Price Control

Table: Summary Impact of Alternative Price Control Mechanisms

	Firm has incentive to price efficiently?	**Firm has pricing Flexibility?**	**Regulated firm bears volume risks?**	**Information required for setting cap, given allowed revenue?**	**Information required for compliance?**
Average revenue cap	Some Incentive (firm can increase profits by pricing efficiently, but may engage in excessive price discrimination)	Yes	Yes	Low (volume forecast)	Low (actual revenues and volume)
Total revenue cap	No	Yes	No	Very low	Very Low (actual revenues)
Hybrid revenue cap	Some incentive	Yes	Some risk	Low (volume forecast)	Low (actual revenues and volumes)
Tariff Basket	Yes	Yes	Yes (to the extent that regulated tariffs do not reflect marginal costs)	Medium (volume forecast and weights for different services)	Medium (tariffs for different services)
Disaggregated price caps	Yes (but firm can only exercise this incentive to the extent that it can influence regulated tariffs)	No (except to the extent that firm can influence regulated tariffs)	Yes	High (volume forecast and costs/mechanism for setting individual tariffs)	Medium (tariffs for different services)

Source: Frontier Economics (2006)

From the above analysis some the following are evident:

- All regimes have aspects of regulatory gaming associated with them and consequently, the choice of regime should partly depend on the regulator's ability to handle gaming.
- The allocation of risk and volatility differs between regimes. Choice of regime should be a decision as to who is best placed to handle that risk, and whether additional mechanisms exist to dampen the volatility without creating additional problems.
- The choice of regulatory regime must be predicated on the regulatory objectives of the regime.
- Within the range of regulatory regimes there are important implications for:
    - The operation of regulations;
    - The incentives for the service provider, including incentives to game;
    - The allocation of risk; and
    - The volatility of prices.

2.4 Criteria for assessing Price Controls

The RIC's objective is to ensure that the form of price control chosen will provide T&TEC with the best incentives to operate efficiently while allowing for a fair level of revenue recovery from electricity customers. A variety of criteria have been utilized in order to assess whether a particular form of control is suitable for a particular regulatory environment. Such criteria include but are not limited to:

- The impact of a particular price control on the firm's ability to set efficient prices.
- The impact on the path of prices or revenues within the regulatory period as this has implications for the stability of household bills.
- The allocation of risks, in particular volume risk, between a firm and an end user, that is whether or not the control is highly sensitive to inaccurate volume forecasts.
- The flexibility and scope to introduce new products or price structures (this improves the ability to provide services that customers find attractive and to match prices to marginal costs).
- Information asymmetry and opportunities for gaming.
- Its impact on the firm's incentive to reduce costs and promote efficient behavior.

- Its impact in relation to demand management.
- Degree of competition.

Of particular importance as well to the RIC, is that the form of price regulation allows total revenue to track total costs, particularly as in the case of electricity transmission and distribution as a number of these costs are outside of the SP's control[4].

It is also noteworthy to mention that often primary controls are coupled with secondary controls which are utilized to mitigate some of the disadvantages or short-comings of an approach.

2.5 Assessing the Different Forms of Control

2.5.1 Weighted average price cap (tariff basket)[5]

Under a weighted average price cap (tariff basket control) the service provider faces a cap on the weighted average price of a basket of services which changes over time on the basis of an 'RPI - X' formula.

Under this approach SPs have flexibility in establishing prices provided that the overall cap is not exceeded. This flexibility improves the ability of the service provider to match prices to marginal costs[6].

[4] The two major costs here are fuel and conversion , which together constitute 70% of the costs faced by T&TEC.

[5] Individual Price caps as well as Price Caps with triggers are similar to average revenue caps and will be discussed along with them.

[6] According to economic theory, efficient price setting requires tariffs to be equated to marginal costs. The rationale for this is that marginal cost based prices sends signals to consumers and producers that encourage them to balance the benefits obtained by consuming a good or service with the costs of providing it. However, marginal cost pricing cannot guarantee that revenue will match the total costs of service provision and in natural monopolies it can lead to under-recovery of total costs.

In terms of volume risk it can be argued that because the cap is placed on prices rather than revenue, there is less volume risk and overall less sensitivity to the accuracy of volume forecasts. However, it means that the SP will in fact have to bear the risk of any short falls in demand. Indeed, price cap controls can provide incentives for firms to meet and expand demand since the revenue received is not capped as it would be under a revenue control. Hence, as long as the marginal revenue associated with increased service provision is greater than the marginal cost of increased service provision, the service provider will have an incentive to increase sales. This will of course run counter to demand management plans.

All forms of incentive regulation incorporate incentives for efficiency savings. However, depending on the basis on which weights are set and whether these are quantity or revenue weights will provide less of an incentive for a SP to incur additional cost savings[7] than a fixed or dynamic revenue cap.

There are also concerns that the need to specify individual prices and weights in the revenue basket can constrain the development of new services and prices. In instances where the structure and scope of services are stable this may not be a concern but it may be a constraint in emerging markets.

Price based controls are, in general, not well suited in a regulatory environment where there is a primary focus on maintaining a relationship between revenue and efficient costs over an extended regulatory review period. It can also become a complex exercise to translate target revenue into a weighted average price control which increases the chance of substantial errors being made.

2.5.2 Fixed Revenue Cap

A fixed revenue cap allows revenue to be set equal to the target revenue set for the price review period subject to inflation adjustments. Often, a secondary control mechanism, that is, a correction mechanism is employed. It has also been argued that this mechanism is best suited for SPs that face a high proportion of fixed costs and in sectors[8] where volume changes are predictable. Unexpected volume changes can be accommodated by secondary controls.

[7] Savings above those embodied in the x-factor.
[8] Such sectors include electricity transmission and distribution.

As in the tariff basket approach outlined above, SPs also have flexibility in establishing prices provided that the overall cap on revenue is not exceeded.

In terms of volume risk, where demand is lower than anticipated, customers will have to face increased prices, thus transferring the risk from the SP to the customer. However, a fixed revenue cap can also encourage innovation in the provision of new products as well as pricing structures to meet customer requirements.

The risk of increased costs however, is borne by the SP at least until the next price review. It can also be argued that this can be an incentive for gaming when estimates of demand growth are submitted by a SP as part of a price review, as the SP may be incentivized to submit inflated levels of demand as a way of minimizing the risk of higher than expected growth depressing their profits. In order to counter such an incentive the regulator may seek to have independent verification of these estimates.

In contrast to a tariff basket cap, a fixed revenue cap may incentivise a SP to encourage conservation among customers.

It is noteworthy to mention here also that in most non-contestable elements of network industries (i.e. transmission and distribution networks), and where the networks are considered to have a strong or dominant ongoing degree of monopoly, a revenue cap approach is generally considered to be more appropriate by most regulators.

2.5.3 Flexible or average revenue caps (revenue yield), Individual or disaggregated price caps and Price Caps with triggers

Flexible or average revenue caps share similar advantages and disadvantages to individual price caps and Price Caps with triggers, and consequently will be discussed together. However, while individual price caps (as well as price cap with triggers) are placed on the price of an individual product or service[9], in the case of an average revenue cap, a cap is placed on the average revenue

[9] The cap can also be placed on an individual customer type.

per unit of output that a service provider is permitted to earn for each year of the regulatory period.

In the first instance, both individual price caps and average revenue caps incentivise service providers to expand output since total revenue and hence profits increase as volume increases[10]. Average revenue caps, particularly if they incorporate weights, also provide some incentives to price efficiently. However, the opposite can also be true as there is little connection between the actual tariff the service provider charges for a unit of output and the average revenue it earns for a unit of output. This creates an incentive for the regulated firm to expand output by pricing some services even below marginal cost. The service provider can do this by engaging in price discrimination, potentially involving products where the demand is particularly elastic and making up for losses through excessive markup on products with inelastic demand. It has also been noted that average revenue controls are more appropriate where costs vary in relation to volume and demand might be unpredictable.

As with other methods of incentive regulation, flexible or average price controls provide good incentives for cost reduction. However, this incentive may be limited since revenue varies with output thus enabling a degree of cost recovery from customers. Additionally, the link between output and total revenue means that firms are subject to output risk and potential revenue instability.

Under both individual caps and average revenue caps the service provider bears all the volume risk. Its revenue will rise if demand is higher than expected. In practice correction mechanisms have typically been adopted to adjust for under and over-recovery. Further, under an average revenue cap there may not be a systematic relationship between the average revenue cap and costs. There could be two reasons why marginal revenue is likely to be greater than marginal cost. First, because many costs are likely to be fixed, the average revenue cap will likely be greater than marginal cost. Second, the regulated firm can increase volume for those services for

[10] A secondary control such as an outperformance reallocation or correction mechanism can be used to nullify such effects.

which it can do so at least marginal cost. Consequently, the service provider is likely to bear significant financial risk.

2.5.4 Hybrid Revenue cap

Under this approach the incentives to price efficiently varies depending on the formula used to set the cap. Hybrid controls aim at minimizing the potential distortions created by the pure forms of revenue control. The greater the extent to which the revenue allowance varies with volume, the greater the incentive that the service provider will have to artificially expand output by pricing inefficiently.

With respect to volume risk, since the link between allowed revenue and volume is weakened, both the customer and firm bear some volume risk. Indeed, depending on the form of the cap if actual volume differs from the cap either the service provider or customers will suffer a gain or loss.

Under a hybrid revenue cap, unlike fixed revenue caps, changing price structures may be problematic depending on how volume forecasts are treated. Moreover, while the accuracy of volume forecasts is not critical under a fixed revenue cap, the accuracy of such forecasts is more important under a hybrid form because there is in fact a variable component to such a control.

Hybrid controls also require considerable information with respect to the appropriate coefficients and forecasts for the control equation which makes it more difficult to implement than a fixed revenue control

Section 3. Assessing whether a Fixed Revenue Cap remains fit for its purpose.

In the first regulatory control period for the electricity transmission and distribution sector, the RIC preferred form of control had been a fixed (total) revenue cap. A fixed or total cap was chosen because it provided distinct advantages such as striking an appropriate balance of risk between customers and the service provider, while concomitantly incentivising the service provider to reduce costs. It also provided T&TEC with the operational flexibility it needed to meet its service objectives and, at the same time, it exposed T&TEC to risks it could control.

The RIC supplemented its fixed (total) revenue cap with a number of secondary controls including:

- An efficiency carryover mechanism for both operating expenditure and capital expenditure.
- A profit sharing mechanism if profits were to exceed 10% of total revenue.
- A notional unders and overs account.
- A side constraint of 7.4% on the annual increase in revenue.

In terms of its performance, RIC's fixed revenue cap will be assessed against the criteria outlined in section 2.

3.1 Efficient Prices.

As previously noted efficient prices mean prices set at marginal cost. However, under conditions of natural monopoly marginal cost pricing will lead to under-recovery of revenues. The RIC discussed this issue in the final determination and noted that two solutions have been suggested to address this issue:

- provide revenue on a per customer basis that is lower than the stand alone cost of providing the service; and
- provide revenue on a per customer basis that is higher than the avoidable cost of providing the service.

Setting prices within these bounds (generally referred to as upper and lower bounds for efficient prices) implies an allocation of the joint or overhead costs of service provision across customers. The RIC also noted that this efficiency goal would be met if the recovery of joint or overhead costs is derived from those customers with more inelastic demand for the service over the relevant price range (i.e. second-best or Ramsey pricing rule). A strict adoption of this rule would make prices high for consumers whose use of electricity constitutes a necessity and these are usually the low-income groups.

In the absence of a marginal cost study the RIC utilised a fully distributed cost model to establish starting tariffs and has ensured through its Annual Tariff Approval Process that tariffs remain cost reflective. In this regard the fixed revenue cap has worked well.

3.2 Stability of households bills

In its final determination for the transmission and distribution the RIC set starting prices for the T&TEC for the period 2006-2007. In the annual adjustment for the period 2007-2008, average household bills rose by 0%-1.21%. For the period 2008-2009, average household bills fell between 7% and 0.4%. In 2009-2010 average household bills rose between 3.1% - 3.7%. The fixed revenue cap has therefore performed well in this regard.

3.3 Allocation of Risk

As noted previously under a fixed revenue cap volume risks are borne by customers because the service provider is guaranteed a fixed total revenue over the price control period. This risk has not materialised because, with the exception of industrial customers, actual demand has out-stripped forecast demand in every other customer category.

3.4 Flexibility and Scope to introduce new products or price structures

T&TEC has not indicated any desire to introduce a new pricing structure during the current price control. But the revenue cap can accommodate alternative pricing structures.

3.5 Information asymmetry and opportunities for gaming

This has been the first price review for T&TEC and the RIC has not seen evidence of gaming. With respect to information asymmetry, the extent to which this particular form of control has been able to reduce the information asymmetry will become evident as the RIC moves to closely examine T&TEC performance vis-a vis the building block components established by the RIC. Thus, the RIC does not wish to pronounce on this matter before detailed analysis is undertaken of T&TEC's cost.

3.6 Impact on the firm's Incentive to Reduce costs and Promote Efficient Behaviour.

The impact of incentive regulation on the performance of state-owned and run utilities has extensively engaged the attention of the RIC. In this regard the RIC notes the following. The primary incentive to reduce costs embodied in incentive regulation is the ability to make profit. Consequently, it may be argued that such a regime will be most successfully applied to utility service providers that are privately owned and operated, and conventionally financed through a mixture of debt and equity[11]. Here the incentives are transmitted by (i) shareholders, who maximize their value by encouraging out-performance of regulatory targets and (ii) debt holders/lenders, who are keen to avoid under performance in order to protect their interest payments and principal. The RIC understands that utilities that are state-owned and controlled sometimes have very different objectives and it may be necessary to provide additional incentives or employ different mechanisms to ensure improved efficiency on the part of those utilities. This may entail a heavier reliance on "sticks" within the regulatory framework, that is, setting tough targets, rather than "carrots", that is, rewarding performance beyond the target level.

Consequently, the RIC has noted that T&TEC has to a large extent treated the fixed revenue cap as its budgetary allocation and it is unclear the extent to which efforts have been made to reduce costs. This will become clearer as the RIC closely examines costs as part of the review process. The RIC will also devote extensive efforts as part of the second review to exploring options for incentivizing T&TEC to out-perform expenditure forecasts.

[11] Indeed different types of corporate entities, with their associated regulatory and financing arrangements, lead to different incentives for cost efficiency.

3.7 Demand Management.

As previously noted, a fixed revenue cap performs well with respect to encouraging a service provider to promote conservation. Overall, however, the RIC has observed that demand in the case of both residential and commercial customers has consistently outstripped the estimates included in final determination. The RIC understands that for the most part, this review straddled a period of economic growth in Trinidad and Tobago and this would have fuelled the demand for electricity.

The RIC, as part of the second review, will seek to employ measures that will encourage greater conservation among customers.

Based on the above analysis the RIC is of the view that a fixed revenue cap remains fit as the appropriate form of price control for the electricity transmission and distribution sector.

Comments are welcome on the RIC's proposal to continue with a fixed revenue cap for the 2011-2016 Price Control period.