



**TRINIDAD AND TOBAGO
ELECTRICITY COMMISSION**

INFORMATION REQUIREMENTS:

BUSINESS PLAN 2004-2008

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EXECUTIVE SUMMARY

This information document is intended to provide guidance to the service provider, the Trinidad and Tobago Electricity Commission (T&TEC), on the information requirements of the Regulated Industries Commission (RIC), in the latter's consideration of an application for a price review.

The RIC was established by Act No. 26 of 1998, and is charged with, among other things, the establishment of the principles and methodologies by which service providers determine rates for services and the monitoring of these rates charged by service providers to ensure compliance with the principles established. It is within this context that this document has been prepared.

The document is subdivided into four (4) sections. Following the introduction, Section 2 looks at developing and assessing the Business Plan. This is followed by a three-part section detailing specific information to be provided and finally the details that comprise the proposed monitoring plan.

The introductory section provides the reader with an outline and role of the Business Plan. The Plan should:

- ❖ Outline in a consistent way the service provider's application for price limits, its costs and bill implications;
- ❖ Set out the service provider's preferred strategy for 2004-2008;
- ❖ Identify and quantify in sufficient details all the strategic issues the service provider faces for the proper carrying out of its functions;
- ❖ Include well-founded forecasts of revenues, costs, investments and maintenance expenditure to ensure an adequate balance between supply and demand in the provision of service to customers;
- ❖ Estimate the service provider's projections for reducing costs through improved efficiency;
- ❖ Establish timeframes and identify outcomes to be achieved over the period 2004-2008 so that progress can be measured against those milestones; and
- ❖ Inform of all the relevant factors the RIC needs to consider in determining fair and reasonable price limits.

Section Two details four recommended stages for developing and assessment of the Business Plan, while Section Three embodies the following structure: an Overview; Main Submission; and a Public Summary. The Overview summarizes the overall strategy for carrying out functions over the period 2004-2008. The Main Submission of the Plan will include an overview of the service provider and the operating environment; specific information requirements such as expenditure and revenue forecasts, demand projections, financing plans, capital expenditure; strategies for efficiency improvements and maintenance of service levels to customers. The Public Summary is intended to facilitate the consumers' understanding of the service provider's plan and strategy for the period 2004-2008. The final section is the monitoring and auditing plan which is a public record of service provider's planned outputs, targets, performance and key activities to be achieved and audited.

1. INTRODUCTION

1.1 Background

The Regulated Industries Commission (RIC) is, among other things, responsible for establishing the principles and methodologies for determining rates, monitoring the performance and efficiency of service providers and setting and enforcing standards of service. The RIC Act No. 26 of 1998 requires the RIC to establish the principles and methodologies for determining rates for a period of five (5) years.

The process of assessing and determining proposed prices involves:

- The identification of service requirements, standards and obligations to be delivered over the regulatory period;
- The establishment of forward-looking revenue requirements for efficient delivery of services over the regulatory period; and
- The determination of proposed prices that are sufficient to recover the revenue requirement over the regulatory period.

An integral part of this process is the development and submission of a Business Plan by the service providers in support of the exercise of setting price limits and taking other associated decisions. The Business Plan will form a basis for the RIC's assessment of the proposed revenue requirement and resulting determination of proposed prices to be applied over the regulatory period in accordance with the requirements of the RIC Act.

1.2 Objective of this Document

This document discusses the role of the Business Plan, the process for developing it and the information expected therein.

1.3 Role of the Business Plan

The Plan should provide the justification for the service provider's submission relating to limits and should:

- explain in a consistent way the service provider's application for price limits, its costs and bill implications;
- set out its preferred strategy for 2004-2008;
- identify and quantify in sufficient details all the strategic issues the service provider faces for the proper carrying out of its functions;

- include well-founded forecasts of revenues, costs, investments and maintenance expenditure to ensure an adequate balance between supply and demand in the provision of service to customers;
- provide estimates of the service provider's potential to reduce costs through improved efficiency;
- establish timelines and identify outcomes to be achieved over the period 2004-2008 so that progress can be measured against those milestones; and
- inform of all the relevant factors the RIC needs to consider in determining fair and reasonable price limits.

As an integral part of the price setting process, the RIC will consult on the method it intends to employ in this exercise. Comments and information received in response to this document will assist the RIC in developing and refining its proposed approach. The RIC will release detailed papers on specific aspects of its approach as required.

Information on how to make submission or provide comments in response to this document is set out at the front of this document.

Structure of this Document

The remainder of this document is structured as follows:

- Section 2 describes the process of developing and assessing the Business Plan;
- Section 3 discusses the contents of the Business Plan; and
- Section 4 discusses the requirements of the Monitoring Plan.

2. PROCESS FOR DEVELOPING AND ASSESSING THE BUSINESS PLAN

Broadly, there are three stages in developing and assessing the proposed Business Plan.

- Establishment of Information Requirement and Clarification:
 - Consultation between the RIC and service provider on the development of the Plan.
 - Finalisation of any policy issues and other additional information requirements.

- Preparation of draft Business Plan:
 - Service provider's preparation of draft Plan.
 - Service provider's consultation, if necessary, with the customers, Minister/Ministry and the RIC on proposed plan and any required amendments.
- RIC's Assessment of Proposed Plan:
 - Submission of final plan to the RIC.
 - RIC's release of its **draft determination** for public comments
 - RIC's release of its **final determination**.

The RIC strongly believes that there is merit in consulting on a number of key issues to facilitate the service provider's preparation of its proposals, including the information and approach that could be used by service providers to develop demand forecasts, demonstrate that proposed expenditure is efficient, pursue efficiency improvements, provision of appropriate return on assets and tariff design and structure. These issues are discussed in detail in the document, "**Setting Price Control: Framework and Approach**", which also is being released for public comments.

3. CONTENTS OF THE BUSINESS PLAN

The Business Plan should contain three parts.

- Overview
- Main Submission (Detailed Justification)
- Summary

3.1 Overview

The overview is a stand-alone summary of the service provider's overall strategy for the proper execution of its functions over the period 2004-2008 and beyond to ensure the provision of an adequate service to customers, including its service performance in recent years, impediments and the state of its assets. Broadly, the overview should:

- set out, in summary, the key activities and programmes/projects the service provider proposes to undertake over the period, and the outputs and milestones to be achieved during the period, including its assessment of the environment and the parameters within which it will have to operate during 2004-2008 and beyond;
- set out the price limits sought for the period 2004-2008 and how these translate into average bills for each class of customer;

- outline how the service provider has taken into consideration the interests of customers on the overall balance between service levels, prices and priorities for improvements;
- include a series of summary tables covering the overall strategy, financial projections, asset values and expenditure, including the scope for improving efficiency and existing practices; and
- state how the service provider proposes to finance its strategic objectives and the revenue that will be necessary to ensure financial viability.

3.2 The Main Submission

The main submission is a detailed justification of the strategy and various issues/options identified in the **Overview**. The submission will consist four (4) sections.

3.2.1 Service Provider and the Environment – Overview

This Overview should focus on:

- Assessment of the likely environment during 2004-2008 and beyond;
- Improvements in service that it plans to deliver;
- Strategies for the achievement of supply/demand balance;
- Achievements to date with respect to services to customers;
- Maintenance of its network and assets;
- Key forecasts over the period; and
- Risks and uncertainties it faced and how it intends to manage them.

In making policy decisions for the price limits, the service provider must take account of the potential effects on service affordability.

3.2.2 Specific Information Requirements

This section requires the service provider to furnish a comprehensive set of information on expenditure and revenue forecasts, demand projections, plans to finance their operations, the consequences for customers bills, financial projections, existing loan agreements, cost of capital, required rate of return and capital structure. All assumptions underlying the projections should be fully justified.

Specific Information

(i) **Cost of Service Study (most recent)**

(ii) **Operating Expenditure (Opex):**

- **Current operating costs and projections** for the period 2004 – 2008, broken down by:
 - customer group (for example, industrial, commercial, domestic);
 - category (for example, labour, materials, rent); and
 - activity (for example, infrastructure maintenance, customer service).
- **Costs to be identified by:**
 - variable costs, fixed costs and other;
 - ongoing controllable costs;
 - ongoing uncontrollable costs; and
 - one-off costs or non-recurring operating costs.
- **Method(s) used for allocating common costs** between customer classes or segments.
- Reasonable **estimates of penalty payments** for the Guaranteed Standards.
- **Efficient Level of Costs:**

A key issue is how the service provider satisfy the RIC that the expenditure forecasts are efficient and reflect a long-term planning horizon.

One approach to estimating efficient costs is to benchmark the performance against other relevant utilities/businesses. The service provider must indicate the methods that will be used for assessing the efficiency of Opex (including general measures of efficiency such as regression analysis and total factor productivity) and provide information on the indicators used for comparison, such as total costs, operating and maintenance costs, overhead costs and other efficiency and productivity measures including comparing costs of particular tasks. Such an approach could be undertaken at “the whole of business level”, or for specific components of expenditure, taking into consideration the danger of relying exclusively on benchmarks to assess expenditure forecasts.

Another approach is to review historical expenditure incurred and to then examine the continuing trend over the regulatory period, setting out any reasons for expected departures from trend expenditure.

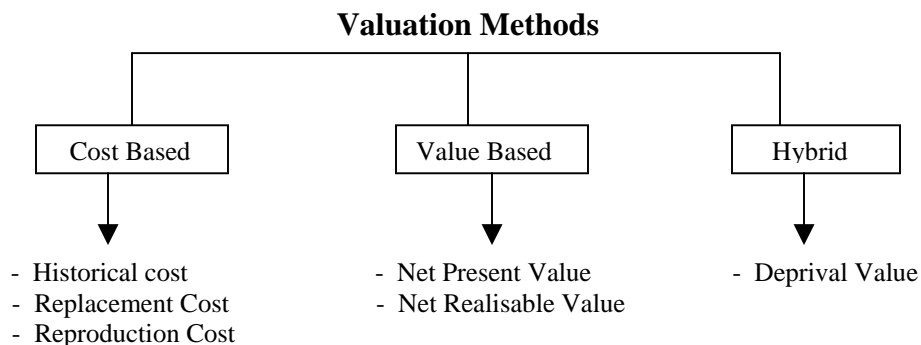
(iii) Capital Expenditure

The proposal for capital investment must be supported and justified. It should include measurable outputs that will be delivered, complete with due dates for delivery, as well as:

- capital expenditure over the period 2004-2008 (including long term investment plan) to be broken down into:
 - capital maintenance expenditure by asset category; and
 - capital enhancement expenditure by asset category.
- listing of all main capital projects to be undertaken during 2004-2008 with costs and commencement and completion dates.
- comparative analysis of capital costs and the scope for improvements in capital efficiency.

(iv) Regulatory Asset Base (RAB)

Accurate asset valuation is critical to generating appropriate price limits. There are a number of methods of asset valuation (shown below) which can generate different values for similar assets.



Information to be supplied:

- total RAB;
- valuation method used for particular class/group of assets; and
- list of assets by class/type, with rates of depreciation.

(v) Asset Consumption (Depreciation)

Broadly, there are two methods of dealing with asset consumption.

- (a) Renewals Annuity** where network of assets is viewed as a single system, the service potential of which is maintained in perpetuity through regularly planned maintenance and renewal programmes and, therefore, does not need to be depreciated. Essential elements of this method are the Asset Management Plan and the proposed Expenditure needed to maintain the system.
- (b) Depreciation** represents the loss in asset service potential and there are a number of methods for allocating depreciation – Straight Line, Accelerated or Units of Production.

Information to be supplied:

- Asset Management Plan, if the renewals annuity method is used;
- Depreciation method used for each asset class or group of assets; and
- The useful expected life of asset/asset class/groups of assets.

(vi) Rate of Return on Capital

An allowed rate of return can be derived by calculating the Weighted Average Cost of Capital (WACC) (i.e. cost of debt and equity capital). Generally, the cost of equity is estimated by the Capital Asset Pricing Model (CAPM).

Information to be supplied:

- model used to determine the overall rate of return;
- capital structure (gearing level), industry benchmark;
- different loans with interest rates, marginal rate, average cost of debt;
- total debt servicing (Interest and finance charges);
- appropriate risk free rate used, market risk premium, the appropriate quantification of the equity beta, gamma etc.;
- government guarantees, if any, for each loan;
- bad debt/total revenue and bad debt policy; and
- receivables and collection policy.

(vii) Other Information

- forecast of number of customers by Rate including methodology used for forecasting customers under low, medium and high growth scenarios;
- forecast of revenue by Rate;
- forecast of energy volumes (kwh) by Rate and Peak Demand, including methodology used for forecasting energy volumes under low, medium and high growth scenarios;
- forecast of Generation and Purchases (Units sent out);
- consumption Analysis of Residential Customers;
- audited Financial Statements for 1998, 1999, 2000, 2001 and 2002;
- forecast of fuel cost per net unit generated;
- forecast of fuel price TT\$/MMBTU;
- number of employees (Permanent and Temporary) and forecast;
- forecast of System Losses;
- forecast of fuel costs and method used;
- forecast of Conversion Costs and method used; and
- information on worst served customers and/or areas/households not currently being served and projects that have been introduced or earmarked for introduction to improve the quality of service.

Demand Forecasts

Demand forecasts are of particular importance in order to propose the prices required to recover the revenue needed to deliver prescribed services over the regulatory period. Demand forecasts are also a key determinant of capital and operating expenditure – as they drive the level of new connections and the need to augment existing systems. In assessing the proposed prices, the RIC will expect that the demand forecasts are reasonable and based on sound information. In preparing demand forecasts, the RIC would expect service providers to:

- analyze historical levels of demand and identify relevant trends and the major factors that determine the trend and explain any variations;

- consult with major service users (e.g. industrial/commercial) about their anticipated requirements;
- consider the likely impact of any changes in tariffs and other demand management initiatives;
- have regard to country's economic conditions; and
- reflect conservation initiatives.

3.2.3 Efficiency Improvements

The service provider must detail its plans to improve both operating and capital expenditure efficiency over the period 2004-2008, show how those have been incorporated into its projections and identify any assumptions made. The scope for improvements in efficiency should cover all major areas of operations. The service provider should provide a list of areas where measures were undertaken to improve efficiency over the last five (5) years and how they impacted on reducing costs of the organization. Additionally, the service provider must furnish information showing its relative efficiency or inefficiency compared with other countries in the Caribbean and elsewhere, including any efficiency studies undertaken and methodology used.

The service providers' performance indicators (compared with the "Best Practice" world wide) should consist of, at the minimum, the following:

- Customers per employee;
- Consumption per capita (Total Sales ÷ Total Population);
- Service Coverage (i.e. Residential Customers x Household Density ÷ Total Population: where Household Density = Average Household size);
- Working Ratio (i.e. ratio of annual costs to annual operating revenue excluding depreciation and interest payments);
- Average Revenue per kwh (\$);
- Average sales per kwh (\$);
- Sales per employee (\$ and kwh) (Total Sales ÷ by number of Employees);
- Total System Losses (Energy purchased – Total Sales or Technical Losses + Non Technical Losses);
- Operating Ratio (i.e. ratio of annual operating costs to operating revenues including depreciation and interest payments but no debt service payments);

- Debt Service Coverage Ratio (Gross Internal Funding ÷ by Debt Service); and
- Operating Cost per Customer (\$).

3.2.4 Maintaining Service to Customers

The service providers' strategy for maintaining and improving service to customers is the main focus under this section. The information should be provided under three (3) headings:

(a) Maintaining Service and Serviceability to Customers

The service provider should provide year-by-year projections of delivery of outputs over the 2004-2008 period that will maintain base service levels and serviceability to both current and future customers. The service provider must identify the minimum levels of activity that it considers necessary to maintain the delivery of outputs and justifying projected operating and capital maintenance expenditure needed to deliver these outputs. The information should include historical levels of maintenance expenditure by asset categories (underground and overhead) and subsets, the projected capital maintenance needs by categories and sub-categories taking into account customer complaints information such as supply interruptions, as well as its asset management plans and strategy including its operating practices and planned routine maintenance activities. Capital expenditure to maintain the asset base should normally be divided into preventative/proactive capital maintenance, reactive capital maintenance and capital maintenance on grounds of economic and health and safety.

(b) Maintaining the Supply/Demand Balance

The service provider must set out its plan and strategy for maintaining the balance between supply and demand, focusing on the implications for expenditure (operating and capital) of maintaining the supply/demand balance. The information must include the service provider's assumptions and judgment on the expenditure (operating and capital) needed to maintain the balance. The service provider's strategy must represent the least cost combination of measures to maintain the balance.

(c) Service Enhancement

The service provider must set out its plans and strategy to improve the service delivered, measurable outputs and the performance to be achieved year by year over the period 2004-2008, including the projected service enhancement operating and capital expenditure needs. It must set out its reasons for proposing the enhancements, for example, it should state whether existing performance is poor in comparison with its comparators. Where the service provider is seeking specific financing in price limits, the impact of the proposed improvements on

operating and capital expenditure, with expected impact on bills, must clearly be stated.

3.3 Public Summary

The Public Summary is a stand-alone summary written with the customers in mind to enable them to understand the service provider's plan and strategy for the period 2004-2008. It should:

- set out the service provider's deliverables with time frames for the period 2004-2008, in terms of quality enhancements and service delivery, together with implications for prices and average household bills;
- set out the service provider's key financial projections with underlying assumptions;
- set out the implications of major enhancement programmes in terms of benefits to customers; and
- set out the service provider's targets and proposals for efficiency improvements.

4. MONITORING PLANS

4.1 Monitoring Plan for 2004-2008

The Monitoring Plan is a public record of the service provider's planned outputs, targets, and key activities to be delivered during 2004-2008.

To assess the performance year-by-year, the service provider will be required to submit its **Monitoring Plan** for the period 2004-2008 to the RIC within six (6) weeks of final determination. The RIC will stipulate the minimum requirements and reporting timeframe in the final determination. The Monitoring Plan will be placed in the RIC's Library and on its website and will be distributed to stakeholders including NGO's, consumer groups, local authorities and other interested parties.

The information to be included in the Monitoring Plan will be under the following headings:

- **Outputs**

The required minimum outputs and targets will be established in some detail in the final determination and monitoring the delivery of these outputs will be the primary consideration. Evidence of a likely failure to deliver the required output/improvement could trigger additional reporting and regulatory action.

- **Serviceability to Customers**

Under this section, the service provider will be required to deliver on its commitments of maintaining serviceability to customers. These commitments will be translated into projects and programmes that would be carried out during the period 2004-2008. Where commitments involve renewing, replacing or extending physical assets, the service provider will be required to detail the areas, the expected commencement and completion dates etc.

- **Prices**

The overall price limit for the period 2004-2008 will be set by the RIC in the final determination. The service provider will translate them into annual separate indicative price limits over the period 2004-2008 for approval by the RIC in March of every year. Additionally, the service provider would be required to explain the implications of the approved tariffs for typical customers' bills in different customer classes.

4.2 Performance Reporting and Auditing

Apart from the Monitoring Plan discussed above, the RIC will also be monitoring and reporting annually on the performance of service providers. This is consistent with the RIC's mandate under its Act which provides for the RIC to monitor and report publicly on the performance of the service providers, including the quality of performance information. The RIC considers that the performance reporting framework should broadly cover the following areas of service:

- baseline explanatory data (for example, customer number and network length);
- quality of supply;
- network reliability and efficiency (for example, interruptions and losses);
- consumption and environmental and conservation initiatives;
- customer responsiveness and service (for example, response to service disruptions and complaint handling);
- financial performance; and
- affordability, including prices.

The RIC will release the draft framework to consult with stakeholders once a draft set of indicators, definitions and thresholds have been established.