

Incentive Mechanisms for  
Managing Transmission &  
Distribution Losses

February  
**2018**

Summary  
Document

## Introduction

One of the responsibilities of the RIC is to ensure that the service provider operates efficiently and that services are reliable, and as far as is practicable, provided at the lowest possible cost. Consequently, as part of the Determination for the period 2006-2011, measures were instituted to incentivize the Trinidad and Tobago Electricity Commission (T&TEC) to manage the level of losses on its Transmission and Distribution network.

Ultimately, consumers pay for energy losses throughout the network via tariffs. Some of the losses can be reduced (but never completely eliminated) by utilizing suitable techniques and equipment. Other elements of the losses are avoidable and can be eliminated or minimized through accurate measurement of electricity consumption and good management of the network. Losses are generally divided into technical and non-technical losses.

Technical losses arise due to physical characteristics of the network, and are dependent on the energy flowing through the system, the materials used to construct transmission lines and transformers, and the way the network is configured and operated. Non-technical losses, at times called commercial losses, arise when energy is delivered to customers but no revenue is collected by the utility for the delivered energy. These losses are usually as a result of measurement errors, recording errors, and theft.

## Purpose of this Document

This is a summary of the consultative document *Incentive Mechanisms for Managing Transmission & Distribution Losses*, in which the RIC presents a review of the current incentives for managing system losses, and proposes recommendations for improving the mechanism for the second regulatory control period 2018-2023. The RIC invites comments and suggestions on the incentive mechanisms that should apply to the monopoly business of electricity transmission and distribution.

## Responding to this Document

All persons are invited to submit their comments on the full consultative document. Responses should be sent by post, fax or e-mail on or before **February 28, 2018** 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  
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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)**.

## Summary of the existing and Proposed Incentive Mechanisms for Managing System Losses for the Regulatory Control Period 2018-2023

2006-2011 Price Control Period	Proposed Terms
<ul style="list-style-type: none"> <li>• Total System Losses was calculated using RIC’s formula, which included the ratio of “collections” to “billings” in addition to electricity sold and electricity purchased.</li> <li>• The base value of total system losses was set at 7.9%, with a target of 6.75% to be achieved by the end of the control period.</li> <li>• Retention of 90% of saving gains once system losses fell below the target.</li> <li>• Installation of metering/monitoring equipment.</li> <li>• Inclusion of the cost of loss reduction measures into the asset base.</li> <li>• No penalty on the service provider for</li> </ul>	<ul style="list-style-type: none"> <li>• The formula is based only on the ratio of electricity sold to electricity purchased.</li> <li>• The base value of total system losses for the next regulatory control period will be set at the average value computed over the year preceding the commencement of the period, with an overall target of 6.75%, and annual reduction target of 0.25%.</li> <li>• Retention of 90% of saving gains once system losses fall below the target.</li> <li>• Installation of metering/monitoring equipment and execution of specific network modification capital expenditure projects.</li> <li>• Inclusion of the cost of loss reduction measures into the asset base once targets are achieved. If targets are not achieved these costs would not be included into the asset base and similar measures will be undertaken in the following regulatory control period at no cost to the customer.</li> <li>• A penalty of a fixed amount or a</li> </ul>

2006-2011 Price Control Period	Proposed Terms
<p>exceeding the target set for system losses.</p> <ul style="list-style-type: none"> <li>• Assess and apply gains at the end of the regulatory control period.</li> <li>• No specific reporting requirement on system losses specific capital expenditure.</li> </ul>	<p>percentage of the cost of exceeding the target where the service provider fails to maintain levels below the stipulated target.</p> <ul style="list-style-type: none"> <li>• Assess gains/penalties at the end of each year during the regulatory control period, and apply at the end of the regulatory control period.</li> <li>• Require T&amp;TEC to report on the implementation of capital expenditure plans to reduce system losses. Failure to implement key projects may result in the imposition of penalties</li> </ul>