REGULATED INDUSTRIES COMMISSION

QUALITY OF SERVICE STANDARDS

FOR THE

ELECTRICITY TRANSMISSION AND

DISTRIBUTION SECTOR

DRAFT FOR CONSULTATION

January 2008

TABLE OF CONTENTS

LIST OF TABLES

APPENDICES

1. INTRODUCTION

The RIC is responsible for regulating prices, service standards and monitoring performance of service providers in the electricity and water sectors. In the conduct of its regulatory functions/activities, the RIC is guided by the legislative and regulatory framework set out in the RIC Act No. 26 of 1998. Section 6(1) of the RIC Act expressly empowers the RIC to prescribe standards of service, monitor to ensure compliance and impose sanctions for non-compliance. The Act also mandates the RIC to consult with all interested parties it considers as having an interest. It was in this context that the standards of performance covering the provision of service to consumers were first established in April 2004 and are currently being monitored. At that time, the RIC indicated that it will review those standards at the end of three years.

1.1 Purpose of Document

This document sets out the RIC's plan for the revision of the existing standards of service. It aims to provide an overview of the principles on which service quality standards for the electricity sector are set and make proposals on what standards might be appropriate going forward. More specifically, the document sets out:

- the RIC's proposed standards and performance targets for the next three years;
- guidelines for data collection to monitor the standards; and
- guidelines for the verification of data by an independent expert/auditor.

On completion of the consultation, the RIC will publish the results thereof and decisions made with respect to quality of service standards for a new three-year period.

1.2 Structure of Document

This document is divided into seven sections. **Section 2** looks at the importance of service quality for a regulated utility and some of the important dimensions of service quality. **Section 3** briefly reviews the range of regulatory approaches that have been adopted to improving service quality along with experience in some other jurisdictions. **Section 4** examines the desirable properties of a service quality incentives scheme. In

Section 5, a review of the current arrangement is undertaken and, in light of this review, the RIC's proposals on the revisions that should be made to the standards and other relevant issues for consideration are detailed. **Section 6** reviews the information to monitor standards and, in the light of this review, proposals on the structure, form and content of the information, including the scope of an information template are highlighted. Finally, **Section 7** sets out the arrangements relating to the audit of information supplied by the service provider.

1.3 Comments and Responses

Comments on the issues raised in this document and any other issues which respondents believe should be considered by the RIC in reviewing the quality of service standards should be sent in writing by **March 14, 2008** to:

The Executive Director
Regulated Industries Commission
1st & 3rd Floors, Furness Building
Cor. Wrightson Road and Independence Square
Port of Spain, Trinidad
Fax: 1(868) 624-2027
E-mail: ricoffice@ric.org.tt

To assist stakeholders in making submissions, the RIC has identified key issues for comments. All responses will be treated as public information unless otherwise specified. If a response is made in confidence, it should indicate that.

2. SERVICE QUALITY REGULATION

2.1 Importance of Quality Regulation

Many basic infrastructure industries, including electricity transmission and distribution, are natural monopolies where one service provider can supply the whole market cheaper than two or more suppliers. In these markets, consumers have limited bargaining power and choice. In the absence of economic regulation, therefore, the service provider has an incentive to exploit and charge a high price for its service. The lack of competition prevents consumers from switching suppliers if they are not satisfied with the quality of service being offered. In these circumstances, monopolies will have weak incentives to maintain a high quality of service.

Additionally, the recent focus of regulation has been to achieve efficient costs and reduce prices to a level approaching those which would apply if the market were competitive. This has most commonly been achieved under price or revenue cap regulation. However, because regulation does not fully replicate a competitive market, price cap regulation when binding, can introduce perverse incentives that deliver inappropriate levels of quality. This has led to an increasing focus on the need to incorporate service quality incentives within the regulatory regime to ensure the appropriate level of quality. In fact, a critical tool in the provision of consumer protection is the establishment of service quality and performance standards.

2.2 Defining and Measuring Service Quality

Not only are different attributes of service quality (e.g. reliability of supply, technical quality, etc.) demanded by different consumers, but their priorities also change over time. Changes in technology and changes in lifestyle can change service quality demand patterns. Different classes of consumers will also have different preferences. A range of techniques have been used to ascertain and attempt to quantify consumers' preferences for service quality, ranging from consultation with key stakeholders to the application of contingent valuation and conjoint analysis techniques. Because of the degree of difficulty involved in determining the consumer preferences for different service quality

attributes and the costs the service provider faces in proving those attributes, defining quality is not an easy task. Broadly, for the purpose of this document, quality of service means the dimensions of the regulated outputs which are valued by users.

Measuring Service Quality

To implement a service quality scheme, quantifiable and verifiable performance indicators are required and these indicators should satisfy four criteria[1]:

- they should be related to the aspects of service that customers value (i.e. important to customers);
- they should focus on monopoly services;
- utilities should be able to affect the measured quality (i.e. controllable by service provider); and
- the indicators should not ignore pockets of service quality problems, and should be measurable by regulators.

In the electricity sector, three main aspects of service quality could potentially be measured. These aspects are generally grouped into network reliability measures, technical/quality of supply, and customer service measures.

Network Reliability Measures

The reliability measures are considered to be the most important aspect of network quality as they lie at the heart of the network service and they relate to the duration and frequency of interruptions. The most common measures here are the System Average Interruption Frequency Index (SAIFI) which measures the average number of times a customer's supply is interrupted in a year, System Average Interruption Duration Index (SAIDI) which measures the total number of minutes, on average, that a customer is without electricity in a year, and Customer Average Interruption Duration Index (CAIDI) which can be obtained by dividing SAIDI by SAIFI to show the average duration in minutes of each interruption a customer faces, usually over one year.

[1] Kaufmann, L. and M.N. Lowry (2002), Price Cap Regulation of Power Distribution, Edison Electric Institute, Madison, USA.

Quality of Supply Measures

The quality of electricity supply deals with the characteristics of the supply delivered to customers' premises, specifically, voltage surges or voltage sags and harmonic distortions. Voltage characteristics are particularly important to industrial customers. In fact, one of the main concerns of consumers, in many areas of Trinidad and Tobago, is voltage fluctuations. Indicators in this category include:

- low supply voltage;
- voltage dips;
- voltage swells and or spikes; and
- number of faults per 100 km of the network.

Customer Service Measures

Customer service measures relate to the timely provision of services, the timely repair of faults, call centre performance and complaint handling, and may include the following:

- number of calls not answered within 30 seconds;
- average waiting time before a call is answered;
- percentage of calls abandoned;
- appointment punctuality;
- number of complaints received and resolved by type;
- resolution time (average, minimum and maximum) by complaint type;
- billing and metering queries;
- time taken for new connections; and
- time taken to repair street lights.

Each of these aspects of service quality will be covered in the revised standards.

The RIC invites comments on whether all three aspects of service quality should be reflected in the revised list of standards.

3. APPROACHES FOR REGULATING SERVICE QUALITY

3.1 Instruments for Regulating Service Quality

Most regulators have some arrangements in place regarding quality of service and these could be addressed at various levels, ranging from publishing absolute or relative quality information through to the specification of service levels to individual users with financial penalties for non-performance. At least four (4) broad mechanisms exist for regulating service quality. None of these approaches precludes the use of any other option, and the best approach may well be a combination of the following options:

- **Minimum/Indicative Standards –** Minimum service standards for a range of quality attributes are often specified or built into a license. However, these provisions impose little pressure on the service provider to move towards an optimal level of service quality. Minimum standards can have a role in improving service quality but only in conjunction with other measures.

- **Comparative (Performance) Reporting –** One method of providing incentives for service providers to improve the level of service is to establish a regime aimed at disclosing information about their performance, thereby increasing the accountability and transparency of service providers. Under the comparative benchmarking and reporting option, the service provider is required to report its performance against a specified set of measures. While comparative reporting may not appear to be a strong option for encouraging improved performance, this approach encourages service providers to maintain and improve service quality to a level that is more in line with customers expectations by exposing them to critical assessment. A criticism of this approach is that it may generate unrealistic expectations among consumers without taking account of the cost of improving service quality.

- **Financial Incentives for Service Performance –** Another method of providing incentives to improve service performance is the linking of actual service performance to prices. There are two approaches:

(i) Guaranteed (Penalty) Payments – Under this approach, the service provider is required to make guaranteed payments to customers who receive service below a certain benchmark. Currently, this is one of the most common approaches used by regulators to control service standards. The standards are generally divided into guaranteed and overall standards.

Guaranteed standards set service levels that must be met in the provision of service to each individual consumer. Failure to meet guaranteed standards requires a specific payment to be made to the affected customer. Penalty payments have the effect of providing relatively strong incentives to meet the minimum level of service quality specified but little incentive to outperform it. The payments also are set somewhat arbitrarily and usually below the cost of the inconvenience suffered by consumers. **Overall standards** cover areas of service that affect all or a large group of customers and, therefore, compensatory payments are not feasible. However, even in such circumstances, it is desirable for the firm to provide service at a predetermined minimum quality. Under this approach, the primary purpose is to provide an incentive to improve key aspects of service rather than to provide some form of compensation.

(ii) Performance Incentive Mechanism (S-Factor) - Some regulators have included a service standards incentive mechanism in the price or revenue cap, "S-factor", which provides an incentive for the firm to increase service levels by collecting additional revenue where the service provider exceeds predetermined service quality targets. Such a mechanism establishes a linkage between the price level and performance indicators, out-performance is rewarded through a higher price, while failure to achieve standards results in a lower price. Although this approach provides incentives to achieve or exceed the service targets and standards, an "S-factor" incentive regime has practical difficulties, including:

- the exact form of the S-factor and the availability of data to support it;
- the appropriate measures of performance indicators to be included;
- the level of revenue that should be put at risk; and
- the treatment of the impact of external events on service.

Legal Compensation and/or Application of Statutory Penalties – Under this approach, service providers face incentives from the possibility of awards of compensation by the courts or the application of statutory penalties by the regulator. This approach carries high transaction costs but can be an effective incentive of last resort.

3.2 Experience in Other Countries

Service quality issues are receiving increasing attention in most countries. Service quality issues were of less concern under traditional rate of return regulation but have become increasingly important under the price cap form of regulation. The United States has the longest history with providing performance-based incentives to improve service quality. However, most other countries have recently started to introduce service quality plans and incentives.

Although the approaches being used vary across different countries, service quality regulation is still evolving. A lighter approach to service standards is being suggested in those industries where competition is developing. However, in industries operating in monopoly markets or in markets which have not reached effective competition, the service standards are being imposed by regulators to ensure that the customer is provided with a high quality, value for money service.

Internationally, the literature clearly shows that:

- the most popular approach so far is Guaranteed Standards schemes with penalty payments;
- most countries move progressively towards S-factor/incentive approach;
- the tendency is to cover the three broad service quality attributes (i.e. reliability, technical quality and customer service measures) when setting standards;
- compensation/payment methods vary from country to country; and
- the service quality measures require a good monitoring regime to be effective.

Table 1 summarizes the approaches used by various regulators/countries.

TABLE 1 – APPROACHES USED BY VARIOUS REGULATORS/COUNTRIES

Regulator/Country	Indicative/Min. Standards	Benchmarking/ Comparative	Standards Subject to Penalty	Quality Adjustment Price Cap/S-Factor
USA	√			√
OFGEM (UK)	√	√	√	√
Australia	√	√	√	√
Italy		√	√	√
Netherlands	√			
Norway		√		Proposed
Portugal	√	√	√	
Spain	√	√	√	
OUR (Jamaica)	√		√	
FTC (Barbados)	√		√	
Trinidad and Tobago	√	√	√	

Source: **Office of Utilities Regulation, Jamaica.**
Fair Trading Commission, Barbados.
Ofgem, UK.
Council of European Energy Regulators, Quality of Electricity Supply, April 2001.

4. DESIGN ISSUES FOR SERVICE QUALITY INCENTIVES

In designing a service quality incentive scheme, the first issue to be resolved is the underlying objective of the scheme. However, whatever the underlying objective, it is essential that service regulation should provide an adequate framework to align the service provider's objective to what the users need and are prepared to pay for. As indicated above, quality of service refers to the attributes of the regulated outputs which are important and valued by users. Once the objective has been determined, there are five elements around which choices have to be made:

- service quality indicators and their coverage;
- service quality benchmarks;
- setting appropriate rewards and penalties;
- level of compensation; and
- the appropriate incentive mechanism.

4.1 Service Quality Indicators Coverage

As indicated in section 2.3, the service quality indicators should satisfy at least four basic criteria. It is important to concentrate on those areas that are of most concern to consumers. Also, the pattern of customer complaints should provide sufficient indication as to what customers value the most. Further, indicators from all three main areas (reliability, service quality and customer service) must be included, even though some may receive a relatively low weight, as failure to include some aspects will provide an incentive for the service provider to reduce quality in those areas.

However, it is also important to ensure that the indicators included are relatively few in number though they should be comprehensive in nature. It is also generally recognized that the preferred number of indicators should be kept low in the initial stages of the scheme and that the number of indicators could be expanded over time as experience with the scheme increases. Finally, one needs to ensure that data required to support the chosen indicators are readily available.

4.2 Choosing Service Quality Benchmarks

The choice of an appropriate set of benchmarks (an appropriate level at which to set the standard) against which to compare the service provider's performance is the next important issue for consideration, as these benchmarks will form the basis for providing rewards or penalties. Benchmarks should be realistic given the operating conditions faced by the service provider. Several sources of information are available to the regulator to inform this decision, including:

- **Recent service provider performance**. An obvious starting benchmark can be an average of the service provider's recent performance. However, problems arise where the service provider's recent performance is considered to be inadequate. Additionally, the prolonged use of the service provider's own performance as the benchmark may actually produce perverse incentives.
- **Performance of similar utilities**. The use of external benchmarks, based on the performance of similar utilities, can provide greater incentives to improve performance. An important consideration here will be the comparability of utilities as operational characteristics can differ considerably between utilities.
- **Customer preferences**. Where there is evidence that customers would like to see a particular level of service, this might be taken into consideration in setting benchmarks/targets.

There are also other factors that need to be taken into account, including:

- whether benchmarks/targets should be made progressively harder to achieve;
- the financial implications for the service provider with respect to payment of compensation; and
- whether target levels should vary between rural and urban customers and between domestic and non-domestic customers.

The RIC seeks comments on the ways in which standard levels should be set.

4.3 Compensation Issues and Setting Appropriate Rewards/Penalties

There are several factors that need to be considered in deciding whether or not a service provider should be required to pay compensation in the event of a failure to meet a standard of service. These factors include:

- the relative effectiveness of the proposed measures, with and without compensation payments;
- whether standards can be defined in a clear and reasonable way; and
- the likely costs that financial penalties will impose on the service provider.

Setting an appropriate level of rewards and penalties is perhaps the most difficult element of introducing any service quality incentive scheme, as ideally the rewards and penalties should be based on marginal willingness to pay for service quality. Ascertaining consumers' willingness to pay is itself problematic due to both conceptual difficulties and well-known free rider problems.

Generally, regulators have adopted different approaches to compensation. In terms of incentives, it makes little difference whether a penalty is in the form of lower allowed revenue, fines or compensation and whether the money is paid to a regulator or a fund or to customers through lower prices or compensation. But there is clearly a convincing distributive argument that customers who have suffered poor service should receive some compensation. An approach which is increasingly applied is to make compensation mandatory and pay to all customers affected. Additionally, rates of compensation generally vary according to the proportion of customers likely to claim.

4.4 Level of Compensation

Broadly, there are three main issues surrounding compensation. It must be recognized that the purpose is to compensate for poor quality and, at the same time, to provide incentives to the service provider to encourage the delivery of quality service.

Compensatory Payments

What should be an appropriate level of compensation? There are several considerations. The level of compensation is not designed to compensate fully the customer's actual loss. It should be set instead at a level that reasonably reflects the minimum inconvenience suffered, while not being unduly punitive to the service provider. In addition, the payments should bear some relation to the monthly billing of the customer. In examining the level of compensation utilized by other regulators, the RIC's research has shown that in some cases the level is set equal to the average bill or part of it. In other cases, it was set as a percentage of a bill or a flat amount. The compensation can also vary among classes of customers and from standard to standard, depending on the severity of the breach. A further factor to take into consideration is the cost to the service provider of preventing service levels dropping below the set standard. Unless the penalty imposed for failure to meet the set standard exceeds the cost of preventing the failure, the service provider will have little incentive to avoid the failure.

Method of Payment

The payments for the guaranteed standards could be made either automatically by the service provider or claimed by the customer or a combination of automatic payment and payment on application. In the case of the former, that approach is more beneficial to customers as it ensures that they receive payment once the standard is breached. However, this will require the introduction of a sophisticated system for monitoring the standards. Over the past three (3) years, T&TEC has reported low numbers of customers' claims even though there have been breaches. This is a concern as claims are necessary to incentivise the service provider. In such a case, unclaimed compensatory payments may be put into a separate fund for quality improvement programmes in the worst served areas.

Form of payment

Similarly, the compensatory payments can be either in the form of a one-time credit on the customer's bill or the service provider can make a separate payment to the customer, say, in the form of a cheque. However, there is advantage to using the former option, as it is simple and cost effective.

The RIC invites comments on whether:

- **compensatory payments should be made automatically wherever possible.**
- **customers should be required to apply for compensation as is currently the case.**
- **the form of payment should be one-time credit on the customer's bill.**

4.5 Choosing the Appropriate Incentive Mechanism

The final step in designing a service quality incentive scheme is the establishment of a mechanism for delivering the rewards and penalties. As discussed above, there are broadly two schemes for delivering the rewards and penalties. The performance incentive mechanism (S-factor) incorporates quality concerns directly in the price cap, making the price or revenue allowed directly dependent on quality delivered. There are now many variants of this scheme. As was indicated above, this scheme has many design issues which need to be addressed.

In the case of monopolies, regulators have typically developed two sets of standards (Guaranteed Payments scheme) where guaranteed standards attract compensation/penalty if they are not met. This scheme does not reward improved performance and thus its main criticism is that it is not symmetric. However, it is argued that this scheme is designed to prevent service quality from falling below specific levels and that the service provider receives incentives for efficiency improvements under other aspects of the regulatory regime.

4.6 RIC's Preferred Approach

On the basis of the above discussion, the RIC believes that a system of guaranteed and overall standards is still the most appropriate option at this point in time. These standards will provide the necessary protection to customers in relation to quality of performance of T&TEC, at least until the S-factor incentive scheme is introduced in the future. The objective of this output based service quality incentive scheme is to provide more balanced and stronger overall incentives to T&TEC to deliver least cost solutions to improve quality of service to customers[2]. Some of the main characteristics of this preferred option are:

- the scheme concentrates on those aspects of quality that customers value the most highly but also covers all broad quality attributes (i.e. reliability, technical/service quality and customer service);
- the scheme comprises the main important indicators of service quality to customers and is capable of objective measurement;
- although the benchmarks to be included to evaluate performance will be based largely on local operating conditions, due recognition to external benchmarks will be given; and
- exclusion/exemption of events from the scheme is duly recognized but it will be on the basis of application to and review by the RIC.

The RIC seeks comments on the appropriateness of continuing with the current approach for regulating service quality.

[2] The number and service areas covered by Guaranteed and Overall standards may differ from country to country for several reasons: importance to customers; ability to deliver the standards; quality of information on the present performance; stage in the life-cycle of regulation, etc.

5. REVIEW OF THE CURRENT STANDARDS SCHEME AND RIC'S PROPOSALS

5.1 Performance under the Existing Arrangements

This section provides a detailed account of the performance of customer service standards since they were first established in 2004, taking into account the penalty payments and the actual levels of performance attained. The effectiveness and operations of the standards will be assessed by evaluating T&TEC's performance under these standards.

Through the ongoing monitoring of the current standards, the RIC has identified a few issues with current arrangements. First, in some cases, the current requirements do not reflect customer priorities. Second, the requirements of some current standards may not totally reflect the way the service provider operates in practice. Finally, and most importantly, the current arrangements have highlighted some difficulty with the robustness of data collected and it may be necessary to improve the quality of data.

Overall, the performance of T&TEC against the various specified standards shows a pattern of consistent improvement across all measures, apart from occasional divergences for a few measures. The performance was erratic for two overall standards OES6 and OES8 (i.e. Response to Customer Queries/Requests and Prior Notice of Planned Outages) which were under the control of T&TEC and did not depend on external factors. Also, the performance for one guaranteed standard GES6 (i.e. Connection to Supply) indicates no trend and remained fairly sluggish and unsatisfactory. Once again, this measure was also under the control of T&TEC. Additionally, even though the annual compliance rates achieved for the Guaranteed Standard GES1 (i.e. Response and Restoration after Unplanned Outages) have been very high, the annual number of breaches of this standard has been extremely high and erratic. In fact, this measure alone contributed to approximately 95% of all breaches. A summary of the performance for the years 2004 to 2006 is presented in **Tables 2 and 3.** However, for a more detailed discussion on the performance of standards, interested parties can view reports on the RIC's website.

TABLE 2 – CURRENT GUARANTEED STANDARDS AND PERFORMANCE LEVEL

Code	Service Description	Performance Measure	Required Performance Units	Payment per Customer	Compliance Rates %		
					2004*	2005	2006
GES1	**Response and restoration time after unplanned (forced) outages on the distribution system.**	Time for restoration of supply to affected customers	Within 12 hours For each further 12 hr period	$30 (residential) $200 (non-residential) $20	98.97 (20,575)	99.42 (24,567)	99.9 (3,301)**
GES2	**Billing Punctuality (new customers)**	Time for first bill to be mailed after service connection: (a) Residential (b) Non-Residential	 65 days 35 days	$30 (residential) $200 (non-residential)	 99.7 89.6	 99.3 90.7	 43.9 47.7
GES3	**Reconnection after payment of overdue amounts or agreement on payment schedule**	Time to restore supply after payment is made (All customers)	Within 24 hours	$30 (residential) $200 (non-residential)	99.3	99.2	99.7
GES4	**Making and keeping appointments**	Where required, appointments will be made on a morning or afternoon basis	Failure to give 24 hours notice of inability to keep the appointment	$30 (residential) $200 (non-residential)	100.0	100.0	100.0
GES5	**Compensatory payment**	(i) Time to credit compensatory payment after non-compliance	Within 35 working days	$30 (residential) $200 (non-residential)	100.0	100.0	100.0
		(ii) Time to complete investigation, determine liability and make payment after receiving a claim.	Within 35 working days		100.0	100.0	100.0
GES6	**Connection to supply:** Under 30 metres	 Service drop and meter to be installed:	 Within 3 working days.	$30 (residential) $200 (non-residential)	 -	 99.4	 94.8
	30 to 100 metres	(a) Provision of estimate (subject to all documents being provided)	Within 5 working days.		59.6	74.8	87.3
	30 to 100 metres	(b) Complete construction (after payment is made)	Within 15 working days.		80.6	76.1	84.0
	100 to 250 metres	(a) Provision of estimate (subject to all documents being provided)	Within 7 working days.		63.5	82.7	82.5
	100 to 250 metres	(b) Complete construction (after payment is made)	Within 20 working days.		78.8	73.4	79.3

Note: The above standards are not in effect during *Force Majeure* conditions.
***Data is for the period April – December 2004**
****Number of breaches of this standard.**

TABLE 3 – CURRENT OVERALL STANDARDS AND PERFORMANCE LEVEL

Code	Description	Performance Level	Compliance Rate %		
			2004*	2005	2006
OES1	**Line faults repaired within a specified period of the fault being reported**	100% Within 48 hours	100.0	100.0	100.0
OES2	**Billing punctuality**	98% of all bills to be mailed within 10 working days after meter reading	58.7	100.0	89.5
OES3	**Frequency of meter testing**	10% of Industrial customers' meters tested for accuracy annually	14	100	100
OES4	**Frequency of meter reading**	(a) 90% of Industrial meters read every month (b) 90% of Domestic & Commercial meters read according to schedule.	96 92	100 100	100 N/A
OES5	**Total system losses** (difference between energy received and energy for which revenue is derived)	7.5% of total energy delivered to customers	100	100	0†
OES6	**Response to customer queries/ requests (written):** (a) Time to respond after receipt of queries/ requests (e.g. meter checks) (b) Time to complete investigation and communicate final position (c) Time to complete investigation and communicate final position if third party is involved (e.g. Insurance claim)	 Within 05 working days Within 15 working days of inquiry Within 30 working days after third party action is completed	 55 51.7 -	 41.6 25.0 -	 76.8 26.3 81.3
OES7	**Number of complaints to T&TEC by type:** (a) Billing Queries/Disconnections (b) Voltage Fluctuations/Damages (c) Street Light/Poles/Other	Not more than: - 500 telephone and/or written complaints per 1000 customers per annum 300 telephone and/or written complaints per 10,000 customers per annum. 1,000 telephone and/or written complaints per 10,000 customers per annum.	 100 100 100	 100 100 100	 100 100 100
OES8	**Prior notice of planned outages**	At least 72 hours (3 days) advance notice of planned outages 100% of the time	74	76.0	60.0
OES9	**Correction of Low/High voltage complaints**	All Voltage complaints to be responded to within 24 hours and rectified within 15 working days.	97 88	99.5 94.6	100.0 95.8

***Data is for the period April – December 2004; N/A – Not available.**

†**Compliance is 100% when target is met, 0% when target is not met.**

5.2 RIC's Proposed Quality of Service Standards

In reviewing and proposing the new standards, the RIC took into consideration a number of factors:

- the current areas of concern to customers;
- the operating conditions of the service provider, as the standards need to be realistic and technically possible;
- the degree of effort needed from the service provider in meeting the prescribed standards; and
- the standards in place elsewhere, especially in the Caribbean (**Table 4**).

The standards also include details of exceptional events, which should be excluded from the standards scheme as they are generally outside the control of the service provider. The RIC's proposal is that exceptional events will best be examined on a case-by-case basis, and exclusion on the basis of application to and approval by the RIC.

TABLE 4 - COMPARISON OF STANDARDS FOR DIFFERENT COUNTRIES

Standard Description	Trinidad and Tobago	Barbados	Jamaica	Hong Kong	UK
Restoration of Supply after unplanned outages	Within 12 hours	12 hours	-	2 hours	18 hours
Reconnection after payment of overdue amounts	Within 24 hours	2 working days	2 working days	Same day	Same day
Billing Punctuality. Time for first bill to be mailed after connection	Within 60 days (domestic) 30 days (non-domestic)	None	30 working days	-	30 working days
Connection to supply (connection point within 30 meters)	Within 3 working days	12 working days	4 working days	Next day	30 working days
Responding to billing and payment queries		Provide assessment within 15 working days	-	-	Substantive reply within 5 working days
Investigation of voltage complaints		Visit within 3 working days. Correct within 3 months	-	-	Visit within 7 working days
Notice of supply interruption	3 days notice	48 hours notice	-	7 days notice	5 days notice
Correction of low/high voltage complaints		95% of complaints to be responded to in 5 working days	-	-	Visit within 7 working days or substantive reply within 5 days
Notifying customers of payments owed under standards	100% of customers to be notified of receipt of claims within 10 working days	100% of customers to receive acknowledgement of receipt of claim within 10 working days	-	-	Write and make payment within 10 working days

5.2.1 Guaranteed Standards

The guaranteed standards are first presented in summarized form (**Table 5**). This is followed by more detailed explanations and definitions.

Briefly, the key proposed changes being suggested are as follows:

- Many of the proposed standards have been made more specific.
- Some standards have been replaced and new standards have been included.
- Many target/performance levels are being raised.
- Automatic compensation is being introduced for all standards, except one. When the scheme was first introduced, compensatory payments depended on customers making a claim. Take-up has been low, as hardly anyone bothered to claim.
- The minimum compensation payable for guaranteed standards is also being increased.
- Finally, standards will be attracting different levels of payment.

TABLE 5 – CURRENT AND PROPOSED GUARANTEED STANDARDS

Standard	Description	Performance Level		Penalty Payments	
		Current	*Proposed*	*Current*	*Proposed*
GES1	Restoration of supply after unplanned outage on the distribution system.	Within 12 hours.	Within 12 hours.	$30 residential $200 non-residential For each further 12-hour period – $20 for both residential and non-residential.	$60 residential $600 non-residential For each further 12-hour period – $60 residential $600 non-residential
GES2	Billing punctuality. Time for first bill to be mailed after service connection.	Within 65 days residential. Within 35 days non-residential.	Within 60 days residential. Within 30 days non-residential.	$30 residential $200 non-residential	$50 for both residential and non-residential
GES3	Reconnection of service after settling of overdue amounts or agreement on payment schedule.	Within 24 hours.	Within 24 hours.	$30 residential $200 non-residential	Refund of reconnection fee for both residential and non-residential
GES4	Making and keeping appointments.	24 hours notice of inability to keep an appointment with customers.	24 hours notice of inability to keep an appointment with customers.	$30 residential $200 non-residential	$50 for both residential and non-residential
GES5	Investigation of voltage complaints.	-	Visit within 24 hours. Correct within 15 working days. **New Standard.**	-	$50 residential $600 non-residential
GES6	Responding to billing and payment queries.	-	Substantive reply within 15 working days. **New Standard.**	-	$50 residential and non-residential
GES7	New connection of supply.	Different days were stipulated with respect to the distance from point of connection.	Within 3 working days.	$30 residential $200 non-residential	$50 for both residential and non-residential
GES8	Payments owed under guaranteed standards.	Within 35 working days.	Within 30 working days for non-residential and 60 days for residential.	$30 residential $200 non-residential	$50 for both residential and non-residential

EXPLANATIONS AND DEFINITIONS

GES1 **Restoration of Supply after Unplanned Outage on the Distribution System**

Definition In the event of a failure of supply to customers, the service provider must restore supply within 12 hours of the time from which it became (or should reasonably have been) aware of the fault. If it fails to achieve this, it must pay compensation of $60 to domestic customers or $600 for non-domestic customers, and a further $60 and $600 respectively for each additional period of 12 hours in which supply is not restored.

There are a range of causes for interruptions, including storms, lightening strikes, falling poles and high winds. T&TEC must manage the network to minimise these interruptions and restore power as quickly as possible. However, interruptions caused by the failure of generation, faults of or on customers' equipment, and force majeure* conditions are outside the control of T&TEC and, as such, will be treated as exclusions. These exclusions have to be approved by the RIC.

GES2 **Billing Punctuality. Time for first bill to be mailed after service connection**

Definition Provider must mail the first bill within 60 days (residential customers) and 30 days for non-residential customers after providing a new connection. If the service provider fails to mail the bill within the specified time, a payment of $50 must be made to the customer.

GES3 **Reconnection of Service after settling of overdue amounts or agreement on payment schedule**

Definition The service provider must restore service to a customer within 24 hours after the bill, including the reconnection fee, has been settled by the customer or an agreement on payment schedule has been reached. If the service provider fails to reconnect within 24 hours, a payment equal to disconnection fee must be paid to the customer.

* Force majeure conditions include acts of God, acts of terrorism, riot and severe weather conditions. Apart from force majeure conditions, there may be some other general conditions which may apply to all of the guaranteed standards. These have to be approved by the RIC on a case-by-case basis.

GES4 Making and Keeping Appointments

Definition Where the service provider makes an appointment with a customer and is one hour late for the appointment and has failed to give 24 hours notice of inability to keep an appointment, the service provider must pay the customer compensation of $50.

GES5 Investigation of Voltage Complaints

Definition Where a customer either has reported that he believes that the supply is or has been outside the permitted voltage range or reports an event which might reasonably lead the service provider to believe that a supply is outside the permitted voltage range, the service provider must visit, where a visit is deemed to be necessary, within 24 hours and correct the problem and notify the customer within 15 working days of any voltage complaint. If the service provider fails to visit or correct the fault, a payment of $50 to residential customer or $600 to non-residential must be made.

Delays due to difficulties in obtaining the necessary permission from the Electrical Inspectorate Department or problems arising due to defects in the customer's installation will be treated as exclusions.

GES6 Responding to Billing and Payment Queries

Definition The service provider must respond to a customer's billing and payment queries within 15 working days with a substantive response. If the service provider fails to respond, a payment of $50 must be made to the customer.

GES7 New Connection of Supply

Definition The service provider must complete a new connection of supply within 3 working days after submission of all payments and documentation, including a valid certificate of inspection from the Electrical Inspection Department of the Government. This requirement will not apply where the service provider and customer agree to a specific date. In instances where network augmentation works

are required, the aforementioned stipulation will apply from the date of completion of such works. If the service provider fails to fulfil its obligation, a payment of $50 must be made to the customer.

The existing guaranteed standard had categorized new connections with respect to the distance of the customers' point of connection from the service provider's network. The proposed revision seeks to focus on the issue of delays in completing new connections of supply. Therefore, criteria relating to the estimation and construction of additional infrastructure (**network augmentation works**) have been deleted from the standard and will now be addressed in the RIC's policy on Capital Contribution.

GES8 **Payments owed under Guaranteed Standards**

Definition Once the claim for a breach of any standard has been accepted by the service provider, compensatory payment must be credited to the customer's bill within 30 working days for non-residential and 60 working days for residential customers. If a service provider fails to credit a payment within the specified timeframe, a payment of $50 must be made to the customer.

5.2.2 RIC's Proposal for Compensatory Payments

In light of the above discussion, the RIC is of the view that the compensatory payments should be set at a level that reflects the degree of inconvenience typically experienced by consumers, without being unduly punitive to the service provider. Further, the compensatory payments should bear some relation to the consumer's monthly bill.

The RIC has also recognized the importance of higher levels of compensation to non-residential customers since they are likely to suffer a greater loss from poor service. The RIC also considered the levels of compensatory payments implemented by other regulators. The Fair Trading Commission, Barbados, has

set the level of compensatory payments at approximately TT$144.00 for domestic and approximately TT$688.00 for higher voltage customers. The OUR, Jamaica, has set approximately TT$102.00 for domestic and TT$838.00 for industrial customers for breaches of guaranteed standards, while in U.K., the electricity distributors pay approximately TT$528.00 for guaranteed standard breaches.

The RIC proposes a minimum amount of $50 for residential customers and $600 for non-residential customers. These amounts are approximately 34% and 20% of the average monthly bill per residential and non-residential customers respectively. In Barbados, it is about 45% of the average monthly bill for residential customer, while in the U.K., it is approximately 38% of the average monthly bill per residential customer.

The RIC has also proposed that there be automatic payment for breaches for all standards except GES1 where claim should still be submitted by customers as T&TEC's current system cannot identify the exact number of customers connected to every low voltage feeder. Further, that the level of payment for GES1 be higher than for other standards so as to provide a greater/stronger incentive to T&TEC to improve the overall performance of this standard.

As indicated above, there has been low take-up of claims so far. Making claims are necessary to incentivise the service provider. Therefore, the RIC is proposing two measures. One being automatic payments for breaches. **The other measure is to deposit unclaimed compensatory payments into a separate fund for quality improvement programmes in the worst served areas. The identification of areas to be included and the type of projects etc., will be undertaken by the RIC after consultation with the service provider.**

5.2.3 Compensatory Payments Claim Procedure

- The service provider will make readily available at all its service centres and electronically, forms for the submission of a claim.
- Claims must be submitted within 3 months of the event giving rise to the claim.
- The service provider must accept or deny the claim within 30 working days.
- If the service provider accepts the claim, it must be paid in accordance with GES8.
- If the claim is denied, the service provider must inform the customer of the basis of its decision.
- The customer has the right to make a complaint to the RIC if he/she is dissatisfied with the service provider's decision.

5.2.4 Exemptions/Exclusions Procedure

The service provider wishing to exclude an event must apply in writing to the RIC within 30 working days of the event occurring and identify:

- the relevant event with date etc.;
- the proposed extent of the exclusion; and
- reasons explaining why the event should be considered for exclusion.

5.2.5 Overall Standards

The Overall standards are first presented in summarized form (**Table 6**). This is followed by more detailed explanations and definitions. As in the case of Guaranteed standards, many of the new proposed Overall standards have been made specific, some have been deleted and new ones added and for some, target levels have been raised.

The existing overall standards OES1, OES3, OES5 have been proposed for removal from the current list of standards. T&TEC's compliance rate under OES1 has been 100% for the period 2004 to 2006. With the proposed introduction of network reliability reporting, the historical high level of

performance under this standard should be maintained. T&TEC's compliance rate under OES3 has been 100% for the period 2005 to 2006. T&TEC's scheduled implementation of an Advanced Metering Infrastructure (AMI) project commencing October 2007 would address issues relating to meter irregularities through the real-time monitoring of meters by the service provider. Finally, the issue of System losses has been discussed in the RIC's Final Determination and the data presently captured under OES5 will now be recorded in the regulatory performance reporting arising out of the Final Determination.

TABLE 6 – CURRENT AND PROPOSED OVERALL STANDARDS

Description	Performance Level	
	Current	***Proposed***
Line faults repaired within a specified period of fault being reported.	100% within 48 hours.	No
Billing and punctuality. Mailing of bills after meter reading.	98% of all bills to be mailed within 10 working days after meter reading.	98% of the bills to be mailed within 10 working days after meter reading.
Frequency of meter testing.	10% of industrial customer's meters tested for accuracy annually.	No
Frequency of meter reading.	(a) 90% of industrial meters read every month. (b) 90% of residential and commercial meters read according to schedule.	(a) 90% of industrial meters read every month. (b) 90% of other meters read according to schedule.
Total system losses (difference between energy received and energy for which revenue us derived.	7.5% of total energy delivered to customers.	No
Response to customer queries/requests (written) (a) Time to respond after receipt of queries/requests (e.g. meter check). (b) Time to complete investigation and communicate final position. (c) Time to complete investigation and communicate final position if third party is involved (e.g. Insurance claim).	Within 5 working days. Within 15 working days. Within 30 working days after third party action is completed.	Substantive response within 10 working days and communicating final position within 30 working days.
Number of complaints to T&TEC by type: (a) Billing queries/ disconnections. (b) Voltage fluctuations/ damages. (c) Street light/ poles/ other	500 telephone and/or written complaints per 1000 customers per annum. 300 telephone and/or written complaints per 10,000 customers per annum. 1000 telephone and/or written complaints per 10,000 customers per annum.	No
Prior notice of planned interruptions.	At least 72 hours (3 days) advance notice of planned outages 100% of the time.	3 days advance notice of planned outages 100% of the time.
Correction of low/high voltage complaints.	All voltage complaints to be responded to within 24 hours and rectified within 15 working days.	Now guaranteed standard.
Responding to meter problems.	No	Visit or substantive reply within 10 working days 95% of the time.
Street lights maintenance.	No	Repairing 100% of failed street lights within 7 working days.
Notifying customers of receipt of claim under guaranteed standard GES1.	No	100% of customers to be notified of receipt of claim within 10 working days.

EXPLANATIONS AND DEFINITIONS

OES1 **Frequency of Meter Reading**

Definition The service provider is required to read at least 90% of all industrial meters every month and 90% of other meters to be read according to schedule (i.e. billing cycle). Exclusions would be permitted where the meter is inaccessible.

OES2 **Billing Punctuality. Mailing of bills after Meter Reading**

Definition The Service provider is required to mail at least 98% of all bills within 10 working days after meter reading.

OES3 **Responding to Meter Problems**

Definition The service provider is required to respond to customers' meter problems by visiting or with a substantive response within 10 working days 95% of the times.

OES4 **Prior notice of Planned Interruptions**

Definition In the case of a planned interruption, the service provider is required to give 3 days advance notice of the interruption 100% of the time. The notice must specify the expected date, time and duration of the interruption. The service provider must use best endeavours, however, to restore the supply as soon as possible.

OES5 **Street Lights Maintenance**

Definition The service provider is required to repair 100% of failed street lights under its control within 7 working days after receiving notification.

OES6 **Response to Customer's written complaints/requests**

Definition The service provider is required to provide a substantive response to customers' written complaints within 10 working days and the final position is to be communicated within 30 working days thereafter.

OES7 **Notifying customer of receipt of claim under Guaranteed Standard GES1**

Definition The service provider is required to notify 100% of customers of receipt of claim submitted for compensatory payment within 10 working days.

5.2.6 System Reliability and Customer Service Measures

In addition to the Guaranteed/Overall standards, the RIC has included reliability measures and a few customer service measures. The reliability measures are considered to be the most important aspect of network quality as they lie at the heart of the network service. Customer service measures are of great concern to customers and are critical to good service. By monitoring and publicly reporting on these measures, the RIC provides an incentive to the service provider to maintain and improve its service levels.

At present, T&TEC has very limited capability to record and adequately monitor these measures. Therefore, the RIC will require T&TEC to commence the collection of data on these measures to establish a baseline. Based on this, the RIC will be able to review the performance improvement against the identified parameters and set targets at the next review of the standards scheme. T&TEC is currently putting proper systems in place for recording and reporting information against these measures.

There are three common and well-accepted measures of **system reliability**, SAIDI, SAIFI and CAIDI. They are defined in the equations below. In broad terms, SAIDI refers to the average number of minutes of interruption to the network per customer. SAIFI measures the average number of interruptions to the network per customer, and CAIDI refers to the average time per interruption per customer.

$$\text{SAIDI} = \frac{\text{Sum of (Customers Interrupted x Interruption Duration)}}{\text{Annual average number of customers}}$$

$$\text{SAIFI} = \frac{\text{Sum of (Customers Interrupted)}}{\text{Annual average number of customers}}$$

$$\text{CAIDI} = \frac{\text{Sum of (Customers Interrupted x Interruption Duration)}}{\text{Sum of (Customers interrupted)}}$$

Customer service measures relate to the service provider's performance in meeting customer requirements in a number of areas. T&TEC will be required to track performance against the following specific customer service parameters of concern to customers but are not covered under the Guaranteed or Overall standards:

- total number of calls received;
- number of calls not answered within 30 seconds;
- average waiting time before a call is answered; and
- number of complaints received and resolved by major complaint type.

Although the actual targets have not been established for the above indices, by collecting and comparing these indices on a regular basis, the RIC will be able to determine whether there has been an improvement in the provision of service.

The RIC invites comments on:

- **the appropriate split of measures between Guaranteed and Overall standards.**
- **the appropriate levels of compensation for the Guaranteed standards.**
- **the reasonableness of the proposed revisions to the Guaranteed and Overall standards.**

6. MONITORING AND ENFORCING STANDARDS

Enforcing standards will have a significant bearing on the quality outcome, as there is little point in setting standards if they cannot be enforced. Also, it is of fundamental importance that the information provided to the RIC is reliable, consistent over time and verifiable. Although there has been some improvement in relation to reporting of the information on standards, the robustness of data now being collected is somewhat worrying. There is limited coordination among different departments responsible for supplying the data to the RIC, as well as limited documentation of the processes that the service provider's staff must follow for collating information. Also, there is limited internal auditing or scrutiny of output measures.

To improve the accuracy and consistency of information, the RIC will:

- establish and follow consistent definitions of the standards;
- insist on the establishment of proper and written procedures for the collation of information and adequate internal audit/scrutiny of procedures and information by the service provider, including:
    - the identification of staff that would be responsible for collating and recording data;
    - methods and responsibilities for reviewing and approving raw data; and
    - functional relationships of staff that are involved in the collection, processing, review and reporting of information.
- revise the structure, form and content of the information, including establishment of information templates. (**Data collection templates are provided in Appendices I, II and III).**

The service provider will be required to provide the quarterly information specified in this document within two calendar months of the end of the quarter to which the information relates. The RIC will publish, on a semi-annual and annual basis, the performance of the service provider for the benefit of the public and other stakeholders.

Proposals on Public Education

The RIC will continue to ensure that T&TEC widely disseminates information on the standards by:

- publishing information on the standards at least once per quarter, and at least in one daily newspaper widely circulating in Trinidad and Tobago;
- providing information, on the standards and how customers can claim for compensation. At least twice per year this should be included in customers' bills;
- ensuring that claim forms are readily available at all T&TEC customer service offices/centres;
- adequately displaying the standards in all T&TEC customer service offices/centres;
- providing annual reports to the RIC on its efforts to promote the standards (including evidence of newspaper advertisements); and
- making available to the public, its complaints reporting process and publishing the appropriate contact numbers on a regular basis.

7. INFORMATION VERIFICATION AND INDEPENDENT SCRUTINY

The service provider must maintain reporting arrangements which provide information that can be verified. In this regard, the service provider will be required to provide a responsibility statement confirming that the information is true and properly reflects the requirements. The responsibility statement will be signed and dated by a senior officer or the Chief Executive Officer of the service provider.

The RIC Act has adequate provisions for the imposition of penalties if the service provider makes false returns, as Sections 59 and 60 clearly state as follows:

> 59. any information required by the Commission which is in the possession or control of a service provider shall be prepared and furnished to the Commission within the time and in the manner and form and with such particulars and **certification** as are required by this Act.
>
> 60. Any person who wilfully makes any return or furnishes any information to the Commission which is false is liable to a fine of fifty thousand dollars.

Furthermore, the RIC may require, from time to time, an independent audit or scrutiny of information submitted. The required scope of any audit or other form of independent scrutiny will be specified by the RIC, when necessary. The audit would be undertaken by an independent expert nominated and paid for by the service provider but approved by the RIC.

APPENDIX I

GUARANTEED STANDARDS REPORTING TEMPLATES

GES1 – Response and Restoration Time after unplanned (forced) outages (compensation level $60 residential, $600 non-residential)

GES1	Measure	Descriptor	Value
	• Number of unplanned outages	Number	
	• Number of failures to restore supply within 12 hours	Number	
	• Number of subsequent failures to restore supply within 12 hours	Number	
	• Total number of breaches	Number	
	• Number of valid claims for payment	number	
	• Total number of exemptions invoked	number	
	• Number of payments made in respect of valid claims	number	
	• Total value of payments made under GES1	$	
	• Total value of payments not claimed	$	

Source:
Officer Name:

GES2 – Billing Punctuality. Time for first bills to be mailed after connection (compensation level $50)

GES2	Measure	Descriptor	Value
	• Number of connections requests, separately for domestic and non-domestic	Number	
	• Number of bills mailed after new connections, separately for residential and non-residential	Number	
	• Number of exemptions invoked	Number	
	• Number of bills not mailed within 60 days (residential) and 30 days (non-residential)	Number	
	• Number of payments made in respect of valid claims	Number	
	• Total value of payments made under GES4	$	

Source:
Officer Name:

GES3 – Reconnection of Service after settling of overdue amounts or agreement on payment schedule (compensation level equal to disconnection fee)

GES3	Measure	Descriptor	Value
	• Number of reconnections after settlement of overdue amounts	number	
	• Number of Agreements approved for payment	number	
	• Number of exemptions invoked	number	
	• Number of reconnections not made within 24 hours	number	
	• Number of payments made in respect of valid claims	number	
	• Total value of payments made under GES3	$	

Source:
Officer Name:

GES4 – Making and Keeping Appointments (compensation level $50)

GES4	Measure	Descriptor	Value
	• Number of customer – arranged appointments	Number	
	• Number of exemptions invoked	Number	
	• Number of appointments not kept within one hour of agreed time	Number	
	• Number of payments made in respect of valid claims	Number	
	• Total value of payments made under GES2	$	

Source:
Officer Name:

GES5 – Investigation of Voltage Complaints (compensation level $50 for residential and $600 for non-residential)

GES5	Measure	Descriptor	Value
	• Number of complaints of suspected voltage problems	Number	
	• Number of complaints where visit necessary	Number	
	• Number of complaints where visit not necessary	Number	
	• Number of exemptions invoked	Number	
	• Number of visits not made within 24 hours	Number	
	• Number of complaints needing correction	Number	
	• Number of complaints not corrected within 15 working days	Number	
	• Number of payments made in respect of valid claims: - where visit was necessary - where correction was necessary	 number number	
	• Total value of payments made under GES6	$	

Source:
Officer Name:

GES6 – Responding to Billing and Payment Queries (compensation level $50)

GES6	Measure	Descriptor	Value
	• Number of billing and payment related complaints	Number	
	• Number of billing and payment related complaints where reply not necessary	Number	
	• Number of billing and payments queries needing substantive reply	Number	
	• Number of exemptions invoked	Number	
	• Number of billing and payments queries where substantive reply within 15 days not sent	Number	
	• Number of payments made in respect to valid claims	Number	
	• Total value of payments made under GES7	$	

Source:
Officer Name:

GES7 – New Connection of Supply (compensation level $50)

GES7	Measure	Descriptor	Value
	• Number of requests for new connection	Number	
	• Number of new connections made	Number	
	• Number of exemptions invoked	Number	
	• Number of new connections not made within 3 working days	Number	
	• Number of payments made in respect of valid claims	Number	
	• Total value of payments made under GES5	$	

Source:
Officer Name:

GES8 – Payments owed under the Guaranteed Standards (compensation level $50)

GES8	Measure	Descriptor	Value
	• Number of payments due under guaranteed standards	Number	
	• Total number of exemptions invoked under all standards	Number	
	• Total number of breaches under GES1	Number	
	• Number of claims made under GES1	Number	
	• Number of payments made in respect of valid claims	Number	
	• Total value of payments made under all standards	$	
	• Total value of payments not claimed under GES1	Number	

Source:
Officer Name:

APPENDIX II

OVERALL STANDARDS REPORTING TEMPLATES

OES1 – Frequency of Meter Reading

OES1	Measure	Descriptor	Value
	• Number of industrial meters in operation	Number	
	• Number of industrial meters read monthly	Number	
	• Number of non-industrial meters in operation	Number	
	• Number of non-industrial meters due for reading	Number	
	• Number of non-industrial meters actually read	Number	

Source:
Officer Name:

OES2 – Billing Punctuality: Mailing of Bills after Meter Reading

OES2	Measure	Descriptor	Value
	• Number of meters read	Number	
	• Number of bills mailed	Number	
	• Number of bills not mailed within 10 working days	Number	

Source:
Officer Name:

OES 3 – Responding to Meter Problems

OES3	Measure	Descriptor	Value
	• Total number of meter problems reported	Number	
	• Number of visits undertaken or substantive replies sent within 10 working days	Number	
	• Number of meter problems not responded to within 10 working days	Number	

Source:
Officer Name:

OES4 – Prior Notice of Planned Interruptions

OES4	Measure	Descriptor	Value
	• Number of occasions supply was interrupted for planned purpose	number	
	• Number of occasions on which the required 3 days advance notice was given	number	
	• Occasions on which the duration of a planned interruption exceeded the time specified in the notification	number	

Source:
Officer Name:

OES5 – Street Light Maintenance

OES5	Measure	Descriptor	Value
	• Total number of street lights during the period	number	
	• Number of street lights reported by customers as not working	number	
	• Street lights not repaired within 7 working days	number	

Source:
Officer Name:

OES6 – Response to Customers' Written Complaints/Requests

OES6	Measure	Descriptor	Value
	• Total number of written complaints received	number	
	• Number of written complaints not responded to within 10 working days	number	
	• Number of written complaints not communicated to with final position within 30 working days	number	
	• Number of written complaints remain unresolved	number	

Source:
Officer Name:

OES7 – Notifying Customers of Receipt of Claim under Guaranteed Standard GES1

OES7	Measure	Descriptor	Value
	• Number of claims made under GES1	number	
	• Number of claims acknowledged within 10 working days	number	
	• Number of claims not acknowledged within 10 working days	number	

Source:
Officer Name:

APPENDIX III

OTHER INDICATORS REPORTING TEMPLATES

Measure	Descriptor	Value
• **System Average Interruption Duration Index (SAIDI)**		
Transmission & Distribution	minutes	
Exclusions	minutes	
Transmission & Distribution – planned	minutes	
Transmission & Distribution – unplanned	minutes	
• **System Average Interruption Frequency Index (SAIFI)**		
Transmission & Distribution	number	
Exclusions	number	
Transmission & Distribution – planned	number	
Transmission & Distribution – unplanned	number	
• **Customer Average Interruption Duration Index (CAIDI)**		
Transmission & Distribution	minutes	
Exclusions	minutes	
Transmission & Distribution – planned	minutes	
Transmission & Distribution – unplanned	minutes	

Source:
Officer Name:

Measure	Descriptor	Value
Total number of calls received	Number	
Calls not answered within 30 seconds	Number	
Average time waiting before call is answered	minutes: seconds	
Abandoned calls	Number	

Source:
Officer Name:

Measure	Descriptor	Value
• **Number of complaints received:** Billing and charges Street lights Outages Total	 number number number number	
• **Average time taken to resolve complaints:** Billing and charges Street lights Outages	 days days days	
• Complaints resolved within 30 days	number	

Source:
Officer Name: