

REVIEW OF THE QUALITY OF
SERVICE STANDARDS
FOR THE
ELECTRICITY TRANSMISSION
AND DISTRIBUTION SECTOR

July
2017

Consultative
Document

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FOREWORD

The Trinidad and Tobago Electricity Commission (T&TEC) is the sole entity responsible for the transmission and distribution of electricity in Trinidad and Tobago. Therefore, consumers of electricity do not have the option to switch to another supplier if they are not satisfied with the quality of service provided by T&TEC. The Regulated Industries Commission (RIC), in its capacity as the economic regulator for the sector, established the Quality of Service Standards (QSS) in 2004 to ensure that T&TEC provides and maintains an acceptable level of service to its customers. The QSS was subsequently revised in 2009 and in the thirteen years that the QSS has been instituted, the RIC acknowledges the improvement in service as T&TEC seeks to adhere to the standards to ensure a safe and reliable supply of electricity to its consumers and the wider public.

The RIC is cognizant that customers will demand increased levels of quality of service, especially with the proliferation of highly sensitive electronic devices within the load matrix on the demand side. In this second review of the QSS, the RIC continues to balance the interests of both the customers and the service provider. Thus, the changes proposed under the QSS address key areas of concern for customers while at the same time being mindful of the constraints faced by the service provider. Finally, the RIC looks forward to a fruitful consultation process and wishes to encourage all stakeholders to comment freely on the document.

DRAFT

1 INTRODUCTION

1.1 The Regulated Industries Commission (RIC) is the economic regulator for the electricity and water sectors in Trinidad and Tobago. 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; to monitor service providers to assess performance with the established standards; and to impose sanctions for non-compliance. In accordance with this mandate the Quality of Service Standards (QSS) for the Electricity Transmission and Distribution Sector were first established in April 2004. A monitoring framework was subsequently implemented to continuously examine the performance of the service provider, the Trinidad and Tobago Electricity Commission (T&TEC).

1.2 Section 6(2) of the Act mandates the RIC to consult with all parties it considers as having an interest in matters before it. The first review of the QSS occurred in 2008. During the exercise, the RIC invited feedback from stakeholders, including T&TEC and took those views into consideration in formulating the revised standards. The Ministerial Order of the revised QSS was published in the Trinidad and Tobago Gazette in December 2009. This document represents the second review of the QSS, and is intended to afford all stakeholders the opportunity to review the RIC's proposals and to provide their feedback for consideration.

Purpose of this Document

1.3 This document provides an overview of the principles on which the QSS are set; summarizes T&TEC's performance with respect to the QSS from 2004 to 2015; and outlines the revisions being proposed to the current QSS. More specifically, the document sets out:

- a) the RIC's proposed QSS and performance measures; and
- b) the guidelines for data collection to monitor T&TEC's performance.

1.4 The RIC periodically review the QSS, taking into account new developments in the regulatory landscape and international best practices. Any proposed change to the methodology is subject to consultation with relevant stakeholders.

Responding to this Consultative Document

1.5 As part of the consultative process, the RIC invites feedback from the public with respect to our proposals. Responses to the specific questions asked 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 **4:00 p.m. on September 8, 2017** to:

**Executive Director
Regulated Industries Commission
3rd Floor, Furness Building
Cor. Wrightson Road and Independence Square
P. O. Box 1001
Port of Spain, Trinidad
Fax: (868) 624-2027
E-mail: ricoffice@ric.org.tt**

1.6 The RIC reserves the right to make all responses available to the public by posting responses on its website at www.ric.org.tt. If a response is marked confidential, reasons should be given to facilitate the evaluation of the request for confidentiality. The RIC will be guided by Section 62(b) of the RIC Act when evaluating any request for confidentiality.

1.7 The RIC will carefully consider all submissions received on this consultation by the deadline date specified above. At the end of the consultative period, the RIC will publish its final decision for this review of the QSS, which will include a summary of the views of the respondents, the RIC's conclusions based on the views received and the definitions and explanations of the revised QSS to be implemented.

Structure of the Document

1.8 This document is divided into eight sections. **Section 2** discusses the importance of service quality, highlighting key elements for a regulated utility. **Section 3** briefly reviews the different methods to regulating service quality and summarizes the approaches taken in some jurisdictions. **Section 4** examines the design of the RIC's service standards scheme in 2004 and 2009. **Section 5** reviews the performance of the service provider with respect to the QSS for the period 2004 to 2015 and network reliability metrics for the period 2004 to 2015. The network

reliability metrics of Trinidad and Tobago in 2012 and 2013 is compared with those of other jurisdictions. **Section 6** presents proposals for revisions to the QSS and the relevant issues for consideration. **Section 7** discusses the issues with respect to the monitoring and enforcing the QSS. Finally, **Section 8** summarizes the issues for consultation.

DRAFT

2 SERVICE QUALITY REGULATION

The Need for Regulating Quality of Service

2.1 Many network infrastructure industries, such as electricity transmission and distribution, are capital intensive, and are amenable to economies of scale. Therefore, they tend to be natural monopolies with one dominant firm operating a single supply network to service the entire market. In such markets, consumers have limited bargaining power and choice. In the absence of economic regulation, the service provider has the opportunity to exploit customers by charging high prices for its service and/or by providing an inferior level of service to consumers. The absence of competition prevents consumers from switching suppliers if they are not satisfied with the quality of service being offered.

2.2 Regulators of utility services have employed various mechanisms to simulate competitive market conditions, with key outcomes being the improvement of the operational efficiency of service and effective or efficient service delivery to consumers. However, because regulation does not fully replicate a competitive market, these approaches can introduce perverse incentives for service providers to cut back on quality of service. Awareness of this phenomenon has led to increasing focus on incorporating QSS within the regulatory regime to ensure that the quality of service to consumers is not compromised when service providers implement efficiency measures in order to reduce cost.

Service Quality

2.3 Consumers differ on the attributes of service which they consider important, and these considerations can also change over time. Therefore, consumers' preferences, in addition to changes in technology, can alter the parameters of service quality that service providers pay attention to in order to provide a high level of service on a continuous basis. A range of techniques has been used worldwide in an attempt to ascertain and quantify consumers' preferences for service quality. These include consultation with key stakeholders, the contingent valuation method¹ and conjoint analysis techniques². It is generally recognized that defining

¹ A method of estimating the value that a person places on a good using survey questions, such as what they are willing to pay for a benefit or feature, or what they would accept as a compensation if a certain benefit or feature was missing.

² A method of finding out which particular combination of features, for example of a product or a service, is more important to someone than other combinations.

service quality is not an easy task due to the degree of difficulty involved in determining consumer preferences and the costs to service providers in providing these attributes. The main attributes of service quality in the electricity sector can be grouped into three broad categories: network reliability measures, quality of supply measures, and customer service measures³.

Network Reliability Measures

2.4 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.⁴ There are three common and well-accepted measures of system reliability as established by the Institute of Electrical and Electronics Engineers (IEEE) for outages lasting longer than 5 minutes: System Average Interruption Duration Index (SAIDI); System Average Interruption Frequency Index (SAIFI); and Customer Average Interruption Duration Index (CAIDI). These are measured over a given period (typically a year). These indicators are defined in the equations below.

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

$$\text{SAIFI} = \frac{\text{Sum of (Customer Interruptions)}}{\text{Annual average number of customers served}}$$

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

2.5 SAIDI statistically represents the average length of time, that a customer is without electricity in a year; SAIFI statistically represents the average number of times a customer's supply is likely to be interrupted in a year; and CAIDI, which is obtained by dividing SAIDI by SAIFI, statistically represents the average duration of each interruption a customer experiences, usually over one year.

³ Council of European Energy Regulators (CEER): Quality of Electricity Supply: Initial Benchmarking on Actual Levels, Standards and Regulatory Strategies. 2001.

⁴ Institute of Electrical and Electronics Engineers (IEEE): IEEE trial-use guide for electric reliability indices. 1999. IEEE Std 1366-1998.

2.6 IEEE has defined momentary interruptions as outages of less than 5 minutes in duration and these outages can also affect customers significantly. In the past, utilities had difficulty in measuring momentary interruptions but these outages can now be readily recorded due to advances in metering systems. Momentary Average Interruption Frequency Index (MAIFI) statistically represents the average number of momentary interruptions that a customer would experience.

$$\text{MAIFI} = \frac{\text{Sum of (Customers with Momentary Interruptions)}}{\text{Annual average number of customers}}$$

Quality of Supply Measures

2.7 The characteristics/quality of the supply delivered to customers' premises is very important with regard to the statutory requirements set for the supply voltage levels. Quality of electricity supply measures are implemented to ensure that the quality of the supply voltage is maintained within statutory limits and that the occurrence of voltage surges, sags and harmonic distortions are minimized by the service provider. The maintenance of proper voltage characteristics is particularly important to industrial customers because of the increasing use of digital electronic control circuitry in plant equipment. Indicators in this category include:

- a) the frequency of low supply voltage;
- b) the number of voltage dips;
- c) the number of voltage swells and/or spikes; and
- d) the number of faults per 100 km of the network.

Customer Service Measures

2.8 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:

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

Measuring Service Quality

2.9 The literature on economic regulation has suggested that in order to implement a service quality scheme, quantifiable and verifiable performance indicators are required and these indicators should satisfy the following criteria⁵:

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

2.10 The RIC has enforced quality of service standards over the past thirteen years in the Electricity Transmission and Distribution Sector. During this period, the RIC has continually reviewed T&TEC's QSS performance reports. Additionally, areas of concern to customers have been noted by the RIC's Customer Service Department which has facilitated the resolution of customer complaints with the utility. The continued performance monitoring combined with the high level of customer engagement enables the RIC to determine the aspects of service that are currently important to consumers.

⁵ Kaufmann, L. and M.N. Lowry (2002), Price Cap Regulation of Power Distribution, Edison Electric Institute, Madison, USA.

3 APPROACHES FOR REGULATING SERVICE QUALITY

Instruments for Regulating Service Quality

3.1 The RIC's review of the existing international practices reveals that most regulators have in place various arrangements to address the quality of service provided to consumers. Mechanisms used to implement these arrangements range from the publication of absolute or comparative service quality information to the specification of quality of service levels to individual users with the imposition of financial penalties for the service providers for non-compliance. The following three (3) broad mechanisms exist for regulating service quality, and these can co-exist in the same regulatory regime:

- a) **Minimum/Indicative Standards** – Minimum service standards are typically specified for a range of quality attributes, and are often part of a licensing condition. 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 that either incentivize good performance or penalize poor performance.
- b) **Performance Reporting** – One method of incentivizing service providers to improve the quality of service is to publish information about their performance, thereby increasing accountability and transparency. Under the performance reporting option, the service provider is required to report its performance against a specified set of measures. While performance reporting may not appear to be a strong option for encouraging improved performance, this approach may encourage service providers to maintain and improve service quality to higher levels as their performance will be subject to public scrutiny and comparison with other utilities.
- c) **Financial Incentives for Service Performance** – Another method of providing incentives to improve service performance is the linking of actual service performance to penalty payments and price adjustments. There are three approaches under this category:
 - (i) **Guaranteed (Penalty) Payments** – Under this approach, the service provider is required to make guaranteed payments to customers who receive service below a certain pre-defined level. 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.

1. **Guaranteed standards:** Set service levels that must be met in the provision of service to each individual consumer. When the service provider fails to meet a guaranteed standard, a specified penalty payment has to be made to the affected customer. Penalty payments have the effect of providing relatively strong incentives to meet the specified minimum level of service quality but little incentive to outperform the specified minimum. The payments are set at a specified quantum to incentivize the service provider to improve the level of service but it does not necessarily compensate for the cost of the inconvenience suffered by consumer.
2. **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 utility 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)** – 8. The service standards incentive factor, “S-factor” provides an incentive for the service provider to increase service quality by allowing the service provider to collect additional revenue when predetermined service quality targets are exceeded under incentive-based regulation. Such a mechanism establishes a link between the price level and the performance output. Over-performance is rewarded through a higher price, while under-performance 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 determination of:

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

(iii) *Legal Compensation and/or Application of Statutory Penalties* – 9. Under this approach, service providers have an incentive to provide good service due to the possibility of having the courts award compensatory payments to customers affected by poor service or the application of statutory penalties by the regulator. This approach carries high transaction costs but can be an effective incentive of last resort.

Approaches adopted across jurisdictions

3.2 Regulators in different jurisdictions have adopted a variety of approaches with respect to the quality of service standards imposed to ensure that service providers offer customers a high quality service. Table 1 presents a summary of the approaches used by various regulators/countries.

TABLE 1–QSS APPROACHES USED BY VARIOUS REGULATORS/COUNTRIES

Regulator/Country	Indicative/Min. Standards	Performance/(Comparative)	Financial Incentives		
			Guaranteed Payment	S-Factor	Statutory Penalty
OFGEM (UK) ¹	√	√	√	√	√
AEEG (Italy) ¹		√	√	√	
Energiekamer (Netherlands) ¹	√				
NVE (Norway) ¹		√		√	
EDP (Portugal) ¹	√	√	√		
CNE (Spain) ¹	√	√	√		√
OUR (Jamaica) ²	√		√	√	
FTC (Barbados) ³	√		√		
RIC (Trinidad and Tobago) ⁴	√	√	√		

Source: 1. Council of European Energy Regulators, 5th Benchmarking Report on Electricity Quality of Supply, February 2014.

1. Office of Utilities Regulation’s (OUR) Determination Notice on JPS’ Tariff review Application 2014-2019.
2. Fair Trading Commission’s (FTC) Decision on Standards of Service for the Barbados Light and Power Company (July 1, 2014 – March 31, 2017).
3. RIC’s Quality of Service Standards for the Electricity Transmission and Distribution Sector, 2008

3.3 Findings by the Council of European Energy Regulators (CEER)⁶ reveal:

- a) the most popular approach in Europe is the implementation of Guaranteed Standards schemes with penalty payments;
- b) some countries after implementing Guaranteed Standards schemes have subsequently used the S-factor/incentive approach;
- c) the tendency is to cover the three broad service quality attributes (i.e. reliability, quality and customer service) when setting standards;
- d) compensation/payment methods vary from country to country; and
- e) the service quality measures require a good monitoring regime to be effective.

3.4 Examining the approaches employed in the three (3) Caribbean territories listed in table 1 the following points are highlighted:

- a) All the territories have implemented a QSS scheme which incorporates Guaranteed Standards with penalty payments and Overall Standards;
- b) Penalty payments under the Guaranteed Standards range from USD 7.30 to USD 87.56 for Trinidad, USD 11.66 to USD 58.30 for Jamaica and USD 22.50 to USD 107.50 for Barbados;
- c) Compensatory payments for non-compliance with the target levels set for all of the Guaranteed Standards are automatically processed in Jamaica while in Barbados and Trinidad there are some Guaranteed Standards for which customers have to file claims for non-compliance with the target levels of these Guaranteed Standards while automatic payments are processed for the remaining standards;
- d) Jamaica is the only Caribbean territory to incorporate the S-factor as part of the financial incentives; and
- e) Jamaica is the only Caribbean territory to include targets for SAIDI, SAIFI and CAIDI as part of the Overall Standards.

⁶ Council of European Energy Regulators, 5th Benchmarking Report on Electricity Quality of Supply, December 2011.

4 DESIGN OF RIC'S QUALITY OF SERVICE STANDARDS SCHEME

4.1 The RIC established a system of Guaranteed and Overall Standards in 2004 and continued with this approach in 2009, in which indicative performance targets were set in conjunction with the service provider having to remit guaranteed payments for non-compliance with the standards. The objectives of the RIC's QSS scheme are supported by the broader regulatory framework that is outlined in the Final Determination (Rates and Miscellaneous Charges) for the regulation of Electricity Transmission and Distribution for the period June 01, 2006 to May 31, 2011. This approach has focused on the customers' concerns in relation to the quality of service provided by the service provider and continues to be adopted by regulators in the Caribbean and other jurisdictions as shown in table 1.

4.2 The QSS Scheme introduced in April 2004 consisted of six (6) Guaranteed Electricity Standards (GES) and nine (9) Overall Electricity Standards (OES) that were developed in consultation with the service provider, consumer groups, other stakeholders and interested parties. The revised QSS Scheme promulgated in December 2009 and implemented in April 2010 consisted of eight (8) Guaranteed Electricity Standards and seven (7) Overall Electricity Standards. The following elements will continue to be considered in the design of the RIC's QSS scheme:

- a) the service quality indicators and their coverage;
- b) the service quality performance targets;
- c) the appropriate rewards and penalties;
- d) the level of compensation; and
- e) the appropriate incentive mechanism.

Service Quality Indicators Coverage

4.3 As indicated in section 2, the service quality indicators should satisfy at least five basic criteria falling under three main areas of concern (reliability, service quality and customer service). The indicators listed in table 2 formed the basis of the QSS that were initially set for T&TEC in 2004 and which are currently enforced effective 2010. These indicators focused on the areas that were determined to be important to consumers when formulating and revising the QSS.

TABLE 2– Areas of Concern for QSS Indicators 2004 and 2009

Area of Concern	Indicator (QSS Code and year instituted)
Reliability	Response and restoration time after unplanned (forced) outages on the distribution system. (GES1 2004/ 2009)
	Line faults repaired within a specified period of the fault being reported. (OES1 2004)
Service Quality	Investigation of Voltage Complaints. (GES5 2009)
	Connection to supply. (GES6 2004 amended in 2010 to GES7).
	New Connection of supply (Specifies service drop and meter installation only). (GES7 2009)
	Street lights maintenance. (OES5 2009)
Customer Service	Billing Punctuality (new customers). (GES2 2004/ 2009)
	Making and keeping appointments. (GES4 2004/ 2009)
	Time to credit compensatory payment after non-compliance. Time to complete investigation, determine liability and make payment after receiving a claim. (GES5 2004 removed in 2009).
	Responding to billing and payment queries. (GES6 2009)
	Payments owed under guaranteed standards. (GES8 2009)
	Frequency of meter reading. (OES4 2004 then OES1 2009)
	Billing punctuality. (OES2 2004/ 2009)
	Response to customer queries/requests (written). (OES6 2004, 2009)
	Notifying customers of receipt of claim under guaranteed standard GES1. (OES7 2009)
Service Quality / Customer Service	Reconnection after payment of overdue amounts or agreement on payment schedule. (GES3 2004/ 2009)
	Responding to meter problems. (OES3 2009)
	Prior Notice of planned outages. (OES8 2004 then OES4 2009)

Service Quality Performance Targets

4.4 Under the QSS Scheme, each standard has a performance measure and unit which specifies the objective the standard is designed to achieve and the time in which it should be accomplished. In the case of the guaranteed standards, failure by T&TEC to meet the stipulated performance level is considered non-compliance and for each instance of non-compliance, customers are entitled to receive the stipulated compensatory payment. T&TEC’s performance is measured by its ability to comply with the required performance levels set out in the respective standards. In the last review of the QSS, consideration was given in part to the available QSS performance data of comparable service providers in other jurisdictions. The RIC had also

examined the consumer complaints made to the RIC to determine if new issues had to be addressed. This methodology has again been followed in the current review of the QSS. Other factors that were taken into account are:

- a) whether the targets should be raised gradually over time;
- b) what the financial burden on the service provider would be; and
- c) whether the target levels should vary depending on local conditions and customer type.

4.5 Since the establishment of the QSS scheme in 2004, no distinction has been made on a geographical scale with respect to the set targets. The targets have been applied equitably across all areas of Trinidad and Tobago. However, some performance levels have varied with respect to customer type, in which, the distinction was made with respect to residential and non-residential customers in GES2 and GES8 where higher targets were set for T&TEC with respect to non-residential customers (commercial and industrial). In the last review of the QSS the performance targets for GES1 and GES2 were raised.

Compensatory Payments - Rewards/Penalties

4.6 Since the inception of the QSS scheme, the RIC adopted the approach in which compensation would be paid by the service provider to customer accounts for non-compliance with the Guaranteed Standards, thereby, compensating customers while ensuring that there is incentive to the service provider to deliver a better quality of service. There are three main issues considered with regard to compensation: the level, method and form of the compensatory payment.

Level of Compensation

4.7 The levels of compensation set in both the QSS 2004 and QSS 2009 were fixed amounts which varied between the residential and non-residential customers; varied from standard to standard; and were not designed to compensate fully for the customer's actual loss. The amounts were set at levels that reasonably reflected the minimum inconvenience suffered, while not being unduly punitive to the service provider. In the last review of the QSS scheme, the level of compensation for both residential and non-residential customers was increased for all of the Guaranteed Standards.

Method of Payment

4.8 In the first QSS scheme, the compensation under the guaranteed standards had to be claimed by the customer. The RIC, however, noted in the first review of the QSS scheme that the number of claims made for instances of non-compliance was low and in the revised QSS scheme instituted automatic payment for all but one of the guaranteed standards, GES1. This approach was taken due to the fact that the individual customers affected under GES1 were not readily identifiable to the service provider in order to facilitate the automatic processing of payments.

Form of payment

4.9 The compensatory payments were to be credited to the customer's bill, thereby, imposing less administrative burden and cost on the service provider, as well as less inconvenience to the customer.

Incentive Mechanism

4.10 The mechanism that has been employed for administering the rewards and penalties, since inception of the QSS scheme, has consisted of guaranteed and overall standards, where the guaranteed standards attract compensation/penalty when they are not met. The service provider's performance against both the guaranteed and overall standards has been continuously monitored by the RIC. This approach does not reward improved performance, however, it was designed to prevent the service quality from falling below the specified levels.

4.11 The RIC still considers the system of Guaranteed and Overall Standards as the most appropriate approach at this time. The continuing objective of this output based service quality incentive scheme will be to provide balanced overall incentives to T&TEC in order that it delivers least cost solutions to maintain and improve the quality of service to customers. The QSS scheme will:

- a) concentrate on those aspects of quality that customers value most highly while also covering all broad quality attributes (i.e. reliability, voltage quality and customer service);
- b) focus on indicators of service quality that can be measured objectively;

- c) establish targets to evaluate performance based largely on local operating conditions, while giving due recognition to external benchmarks; and
- d) make provision for the exclusion/exemption of events from the scheme on the basis of an application by the service provider and review by the RIC.

Q1. What are your views with respect to the RIC's approach to continuing with the implementation of a system of Guaranteed and Overall Standards?

DRAFT

5 REVIEW OF T&TEC'S PERFORMANCE

5.1 This section presents a summary of the performance of T&TEC under the QSS scheme for the standards issued in 2004 and the revised standards issued in 2009⁷ in addition to the review of the performance of the compensation scheme between 2004 and 2015. The reliability of T&TEC's network for the period 2004 to 2015 is also reviewed and T&TEC's reliability performance is compared to that of utilities in other jurisdictions for the years 2012 and 2013.

5.2 Through the ongoing monitoring of the standards, the RIC had identified that there was some difficulty with the robustness of data submitted by the service provider. These issues have been discussed with the service provider and steps were taken to improve the quality of data submissions.

QSS Scheme enforced from 2004 to 2009

5.3 T&TEC's performance under the Guaranteed and Overall standards for 2004 to 2009 is shown in the tables 3 and 4 respectively. During this period T&TEC's performance was inconsistent across the standards. In general, the level of performance fluctuated such that there was a high level of compliance in some standards for a few years, followed by periods where the compliance declined below the acceptable value. Performance under GES 2 (Billing Punctuality) deteriorated significantly over the period for both residential and non-residential customers. Performance under GES 3 (Reconnection after payment or agreement) also declined, although to a lesser extent. Performance under GES 6 (Connection to Supply) fluctuated throughout and remained unsatisfactory for most of the said period.

5.4 Non-compliance under the Guaranteed Electricity Standard GES1 (Response and Restoration after Unplanned Outages) typically affected a large number of customers. Although compliance rates were maintained over 98%, this standard contributed to approximately 95% of all instances of non-compliance over the entire period, while the level of claims for compensation was very low.

⁷ Further details on the performance of the utility under the QSS scheme, can be obtained from the Annual QSS Performance Reports located on the RIC's website at www.ric.org.tt.

5.5 The performance requirement under GES 5 (Compensatory Payments) is time-bound, based on the time taken for T&TEC to investigate customers' claims and award compensatory payments for valid claims. Unfortunately throughout the six (6) years, 2004 to 2009, very few customers filed claims as required for payments and, only two (2) claims were processed and compensatory payments made. Consequently, T&TEC paid out \$60 in compensatory payments out of a potential \$3,485,880 for the six (6) year period. It is evident that this low claim rate by customers diminished the effectiveness of the guaranteed standards scheme as a substantial incentive mechanism, and was the basis for an important modification when the standards were reviewed, in 2009.

5.6 With respect to the Overall Electricity Standards, the data in table 4 clearly indicates that T&TEC was fully compliant in the following three standards: OES1 (Line faults repaired); OES4 (Frequency of meter reading); and OES7 (Number of Complaints). However, the level of compliance with the other OESs varied during this period. Performance under OES 2 (Billing Punctuality), OES 6 (Response to Queries) and OES 8 (Prior notice of planned outages) fluctuated in terms of the compliance rates. Performance under OES 5 (System Losses) was consistently low. While there was also fluctuation in the performance under OES 3 (Frequency of meter testing), and OES 9 (Correction of low/high voltage complaints), the compliance rates were consistently high.

TABLE 3 – GUARANTEED STANDARDS (2004-2009) AND PERFORMANCE LEVEL

Code	Service Description	Performance Measure	Required Performance Units	Payment per Customer	Compliance Rates %							
					2004*	2005	2006	2007	2008	2009		
GES1	Response and restoration time after unplanned (forced) outages on the distribution system.	Time for restoration of supply to affected customers	Within 12 hours	\$30 (residential) \$200 (non-residential)	98.99	99.42	99.86	99.90	99.50	99.80		
For each further 12 hr period			\$20									
GES2	Billing Punctuality (new customers)	Time for first bill to be mailed after service connection:	65 days	\$30 (residential) \$200 (non-residential)	99.2	99.3	45.9	49.4	52.8	49.0		
		(a) Residential										
		(b) Non-Residential	35 days		75.0	90.7	47.7	10.5	8.6	23.3		
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)	100	99.2	99.8	99.5	99.9	97.0		
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	100	100	99.4	98.2	99.7		
GES5	Compensatory payment	(i) Time to credit compensatory payment after non-compliance	Within 35 working days	\$30 (residential) \$200 (non-residential)	NA**	NA	100	NA	NA	NA		
		(ii) Time to complete investigation, determine liability and make payment after receiving a claim.	Within 35 working days		NA	NA	100	NA	NA	NA		
GES6	Connection to supply:	Service drop and meter to be installed:	Within 3 working days.	\$30 (residential) \$200 (non-residential)		99.4	94.3	99.9	99.9	98.2		
	Under 30 metres											
	30 to 100 metres				(a) Provision of estimate (subject to all documents being provided)	Within 5 working days.	59.6	74.8	92.8	94.8	68.6	99.1
	30 to 100 metres				(b) Complete construction (after payment is made)	Within 15 working days.	67.4	76.1	88.1	80.5	56.8	97.3
	100 to 250 metres				(a) Provision of estimate (subject to all documents being provided)	Within 7 working days.	63.5	82.7	82	93.5	74.7	94.0
	100 to 250 metres	(b) Complete construction (after payment is made)	Within 20 working days.	65.4	73.4	80.5	70.7	69.1	90.4			

Note: The above standards are not in effect during Force Majeure conditions.

***Data for the period April – December 2004.**

**** Not Applicable (NA). No claims were made during the year, therefore, compliance to credit compensatory payment was not applicable.**

TABLE 4 –OVERALL STANDARDS (2004-2009) AND PERFORMANCE LEVEL

Code	Description	Performance Level	Compliance Rate %					
			2004*	2005	2006	2007	2008	2009
OES1	Line faults repaired within a specified period of the fault being reported	100% Within 48 hours	100.0	100.0	100.0	100.0	100.0	100.0
OES2	Billing punctuality	98% of all bills to be mailed within 10 working days after meter reading	59.0	100.0	0.0	87.8	41.5	18.4
OES3	Frequency of meter testing	10% of Industrial customers' meters tested for accuracy annually	14.0	100.0	100.0	100.0	100.0	100.0
OES4	Frequency of meter reading	(a) 90% of Industrial meters read every month	100.0	100.0	100.0	100.0	100.0	100.0
		(b) 90% of Residential & Non- Residential meters read according to schedule.	100.0	100.0	100.0	100.0	100.0	100.0
OES5	Total system losses (difference between energy received and energy for which revenue is derived) [†]	7.5% of total energy delivered to customers	0.0	100.0	0.0	0.0	0.0	0.0
OES6	Response to customer queries/ requests (written): (a) Time to respond after receipt of queries/ requests (e.g. meter checks)	Within 5 working days	45.0	41.6	72.7	89.0	72.9	87.6
	(b) Time to complete investigation and communicate final position	Within 15 working days of inquiry	48.3	25.0	25.3	52.0	68.4	64.2
	(c) Time to complete investigation and communicate final position if third party is involved (e.g. Insurance claim)	Within 30 working days after third party action is completed	-	-	18.7	39.0	73.3	52.6
OES7	Number of complaints to T&TEC by type: (a) Billing Queries/Disconnections	Not more than: - 500 telephone and/or written complaints per 1000 customers per annum	100.0	100.0	100.0	100.0	0.0	0.0
	(b) Voltage Fluctuations/Damages	300 telephone and/or written complaints per 10,000 customers per annum.	100.0	100.0	100.0	100.0	100.0	100.0
	(c) Street Light/Poles/Other	1,000 telephone and/or written complaints per 10,000 customers per annum.	100.0	100.0	100.0	100.0	100.0	100.0
OES8	Prior notice of planned outages	At least 72 hours (3 days) advance notice of planned outages 100% of the time	74.0	76.0	60.7	48.0	98.0	47.2
OES9	Correction of Low/High voltage complaints	All Voltage complaints to be responded to within 24 hours and	97.0	99.5	99.9	99.9	98.9	99.9
		Rectified within 15 working days.	88.0	94.6	94.6	98.0	96.9	98.1

*Data for the period April – December 2004.

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

QSS Scheme enforced from 2010 to present

5.7 Under the current QSS scheme, there were higher targets set for GES1 (Restoration of supply after unplanned outage on the distribution system) and GES2 (Billing Punctuality (new customers)) and new standards GES5 (Investigation of Voltage Complaints) and GES6 (Responding to billing and payment queries) were introduced as shown in the table 5.

5.8 During the period, 2010 to 2015, T&TEC's performance continued to vary across the Guaranteed Standards, with overall improvement across all the standards with the exception of GES 8 (Payments owed under Guaranteed Standards). The average compliance rate under the QSS during this period was higher than the period 2004 to 2009. The biggest improvement in performance was recorded under GES 2, which is notable as the performance targets had been adjusted from 35 to 30 days for residential customers and 65 to 60 days for non-residential customers. Under GES1, the performance target was adjusted from 12 hours to 10 hours and T&TEC was able to maintain a high level of compliance with this standard. T&TEC was fully compliant under GES4 (Making and keeping appointments). Performance under both of the new standards GES5 and GES6 was very good during the review period. However, T&TEC continued to have challenges in handling compensatory payments. Therefore, GES 8 was the standard under which T&TEC performed the worst. This occurred in spite of the fact that customers were no longer required to file claims for GES 2 to 7, as T&TEC was required to automatically compensate customers when there was non-compliance under these standards.

5.9 Three (3) new standards OES3 (Responding to meter problems), OES5 (Street lights maintenance) and OES7 (Notifying customers of receipt of claim under guaranteed standard GES1) were introduced as shown in table 6. Generally T&TEC's performance under the Overall Electricity Standards improved. T&TEC maintained full compliance for all its customers under OES 1 (Frequency of Meter Reading). T&TEC's performance under OES 2 (Billing Punctuality) showed improvement over the period. T&TEC's performance under OES 4 (Prior notice of Unplanned Outages) and OES 6 (Response to queries) fluctuated over the six year period. With respect to the new standards, T&TEC's performance under OES 3 (Responding to meter problems) fluctuated over the six year period. Likewise, T&TEC's performance under OES 5 (Street Lights Maintenance), a new standard designed to capture how efficiently public

lighting problems were addressed, fluctuated over the period with the lowest level of compliance being 40.5%. The performance under OES 7 (Notifying Customers of Receipt of Claim under Guaranteed Standard GES1) was high with a compliance rate of 100% from 2011 to 2015.

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TABLE 5 – CURRENT GUARANTEED STANDARDS AND PERFORMANCE LEVEL (2010-2015)

Code	Service Description	Performance Measure	Required Performance Units	Payment per Customer	Compliance Rates %					
					2010	2011	2012	2013	2014	2015
GES1	Restoration of supply after unplanned outage on the distribution system.	Time for restoration of supply to affected customers	Within 10 hours For each further 12 hr period	\$60 (residential) \$600 (non-residential) \$60 (residential) \$600 (non-residential)	99.7	99.7	99.8	99.9	99.5	99.9
GES2	Billing Punctuality (new customers)	Time for first bill to be mailed after service connection: (a) Residential	60 days	\$50 for both residential and non-residential	68.0	96.8	98.9	99.4	99.1	99.9
		(b) Non-Residential	30 days		29.0	88.2	80.7	92.5	98.6	96.9
GES3	Reconnection of service after payment of overdue amounts or agreement on payment schedule	Time to restore supply after payment is made (All customers)	Within 24 hours	Refund of reconnection fee for both residential and non-residential	99.5	99.9	99.4	99.9	99.9	99.9
GES4	Making and keeping appointments	Where required, appointments will be made on a morning or afternoon basis	24 hours notice of inability to keep an appointment with customers.	\$50 for both residential and non-residential	100.0	100.0	100.0	100.0	100.0	100.0
GES5	Investigation of Voltage Complaints	Time to visit, correct problem and notify affected customers	Response - within 24 hours,	\$60 (residential) \$600 (non-residential)	98.0	99.6	99.9	99.9	99.7	99.9
			Rectification - within 15 working days.		99.2	99.5	100.0	100.0	99.1	99.7
GES6	Responding to billing and payment queries	Provide a substantive reply	Within 15 working days	\$50 for both residential and non-residential	72.7	100.0	99.9	100.0	100.0	100
GES7	New Connection of supply	Service drop and meter to be installed	Within 3 working days	\$50 for both residential and non-residential	92.9	99.9	99.2	99.8	99.8	99.9
GES8	Payments owed under guaranteed standards	Time to credit compensatory payment.	Within 60 days for residential and	\$50 for both residential and non-residential	UTC*	3.3	0.0	0.0	1.0	0.0
			30 working days for non-residential		UTC	0.0	0.0	0.0	N/A**	N/A**

Note: The above standards are not in effect during *Force Majeure* conditions.

***Unable To Compute (UTC) as only information on the claims for GES1 was provided. Information on compensatory payments for the other standards was not available. As a result, an overall compliance rate for GES8 could not be determined.**

****N/A – Not available.**

TABLE 6 – CURRENT OVERALL STANDARDS AND PERFORMANCE LEVEL (2010-2015)

Code	Description	Performance Level	Compliance Rates %					
			2010	2011	2012	2013	2014	2015
OES1	Frequency of meter reading	90% of industrial meters should be read every month	100.0	100.0	100.0	100.0	100.0	100.0
		90% of residential and commercial meters read according to schedule	100.0	100.0	100.0	100.0	100.0	100.0
OES2	Billing punctuality	98% of all bills to be mailed within 10 working days after meter reading or estimation	95.9	93.9	100.0	100.0	100.0	100.0
OES3	Responding to meter problems	Visit or substantive reply within 10 working days 95% of the time	95.8	96.8	72.6	85.5	87.6	94.7
OES4	Prior Notice of planned outages	At least 3 days advance notice of planned outages 100% of the time	94.9	98.5	97.4	97.2	91.2	96.9
OES5	Street lights maintenance.	100% of failed street lights with the exception of highway lighting repaired within 7 working days.	77.2	80.7	69.8	70.2	50.1	40.5
		100% of failed highway lighting repaired within 14 working days.	76.1	94.7	95.4	90.7	85.6	88.5
OES6	Response to customer queries/requests (written)	Substantive response within 10 working days and	91.9	87.0	87.0	89.6	95.2	84.2
		Communicating final position within 30 working days.	95.7	93.5	83.9	76.5	34.8	45.9
OES7	Notifying customers of receipt of claim under guaranteed standard GES1.	100% of customers to be notified of receipt of claim within 10 working days.	99.9	100.0	100.0	100.0	100.0	100.0

Compensation (2004-2015)

5.10 Over the past eleven (11) years (2004-2015), T&TEC has reported a low number of claims by customers despite many instances of non-compliance. Under GES1, the standard that affects the largest number of customers, the actual annual number of instances of non-compliance has been very significant (see table 7). However, there were not many claims filed by customers.

Table 7 - Number of Breaches under the Guaranteed Electricity Standards 2004 - 2009

Standard	Non-compliance					
	2004	2005	2006	2007	2008	2009
GES 1	20,575	24,567	3,301	3,760	13,271	4,162
GES 2	22	91	11,188	10,614	10,381	11,107
GES 3	129	153	51	68	6	419
GES 4	0	0	0	24	94	15
GES 5	0	0	0	0	0	0
GES 6	320	334	907	181	186	270
TOTAL	21,046	25,145	15,447	14,647	23,938	15,973
Claims filed	2	1	1	0	0	0
Potential Compensatory Payment (minimum) \$	631,380	754,350	463,410	439,410	718,140	479,190
Actual Payments \$	0	30	30	0	0	0

5.11 Over the six year period (2004-2009), T&TEC paid out \$60 in compensatory payments out of a potential \$3,485,880. This low claim rate by customers largely demonstrated that the guaranteed standards scheme was not effective as a substantial financial incentive mechanism, and formed the basis for an important modification when the standards were reviewed and revised in 2009.

5.12 The payments for non-compliance under GES 2, 3, 4, 5 and 6 were made automatic in 2009, as T&TEC could readily identify the affected customers. The automatic payment for instances of non-compliance under GES1 was excluded because T&TEC was unable to identify individual customers affected by non-compliance of GES1 based on the lack of computerized geographic mapping of all their customers' locations. Additionally, even with the high compliance rates achieved under GES 1, the number of breaches occurring continued to be

significant. This further emphasized that relying on customers to make claims, limits the effectiveness of the financial incentive mechanism inherent in the standards scheme. T&TEC should have to remit a significant amount of compensation to the value of approximately \$2.7M over the period 2010 to 2015, but they only paid out \$70,140, or 3% of the compensatory payments (see table 8).

Table 8 - Number of Breaches under Current Guaranteed Electricity Standards, 2010-2015

Standard	Non-compliance					
	2010	2011	2012	2013	2014	2015
GES 1	7,534	10,049	5,806	2,445	6,961	1,524
GES 2	3,750	370	116	50	7	8
GES 3	43	15	99	20	23	11
GES 4	0	0	0	0	0	0
GES 5	77	23	2	1	19	9
GES 6	6,336	0	376	0	0	0
GES 7	549	13	93	26	65	18
GES 8	UTC	95	567	13	66	18
TOTAL	18,289	10,565	7,059	2,555	7,204	1,588
Claims processed	669	348	136	71	46	32
Potential Compensatory Payment (minimum) \$	992,714	629,760	357,782	153,570	431,374	95,388
Actual Payments \$	33,700	18,390	7,328	4,862	3,602	2,258

UTC – Unable To Compute

5.13 T&TEC will be able to identify the individual customers affected by non-compliance of GES1 once the geographic information system (GIS) mapping of all their customers' locations is completed.

5.14 The compensatory payment amounts were also increased in 2009 when the RIC requested T&TEC to institute automatic payments for instances of non-compliance with the Guaranteed Standards. These measures were instituted to incentivize T&TEC to reduce the quantum of penalty payments by improving the level of its service to customers. However, T&TEC has not made the automatic payments for non-compliance on a timely and consistent basis. Of the instances of non-compliance for which automatic compensation should have been made, T&TEC's actual compensation was 6%, 67%, 11%, 69%, 26% and 56% of the potential compensatory payments for the years 2010, 2011, 2012, 2013, 2014 and 2015 respectively.

Furthermore, the number of claims made by customers for non-compliance of GES1 has been, and continues to be, very low. T&TEC paid out \$59,418 in compensatory payments out of a potential \$1.9M for non-compliance under GES1.

5.15 These are points of concern as the compensation scheme has not provided the intended level of incentive to the service provider to improve its performance. One way of addressing this problem may be to deposit unclaimed compensatory payments under GES1 into a separate fund for quality improvement programmes in the worst served areas. In section 6, the RIC proposes measures to make the compensatory payment scheme more effective in achieving the intended outcome.

System Reliability and Customer Service Measures

5.16 Comparing the network reliability statistics of different countries is complicated, primarily because not all countries include incidents at all voltage levels in their statistics. In most of the countries in the European Union, interruptions on all voltage levels are monitored, but detailed data regarding long unplanned interruptions is only recorded for some voltage levels, typically, the distribution voltage level. Most utilities in the United States also follow similar practices. In Trinidad and Tobago, interruptions on all voltage levels are monitored, but only the data regarding long unplanned interruptions at the low voltage level (<12 kilovolts) are used to compile the network reliability statistics. Network reliability data from neighbouring Caribbean states was not readily available for this analysis.

5.17 T&TEC has been reporting on the network reliability metrics, SAIDI, SAIFI and CAIDI but have not been able to capture the data needed to compute MAIFI. T&TEC's network reliability has varied over the years 2004 to 2015, see table 9. During the years 2011 to 2015, there has been improvement in SAIDI, SAIFI and CAIDI in which SAIDI was kept below 500 minutes, SAIFI was kept below 6 and CAIDI was kept below 90 minutes.

TABLE 9 – NETWORK RELIABILITY METRICS FOR T&TEC 2004 – 2015

INDICATOR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
SAIDI (minutes)	833	1116	996	1020	603	487	563	486	464	398	326	308
SAIFI (No./customer)	9.54	11.43	9.93	10.1	6.94	5.55	6.61	5.68	5.71	5.21	4.42	4.40
CAIDI (minutes)	90	98	100	100	93	87	85	86	81	76	74	70

5.18 Table 10 presents the network reliability metrics for T&TEC and utilities in other jurisdictions for 2012 and 2013. Only general statements on T&TEC’s comparative performance can be made because the construction and configuration of T&TEC’s network and the prevailing environmental conditions in Trinidad and Tobago are different from the other jurisdictions. The network reliability of T&TEC with respect to SAIDI and SAIFI did not compare favourably to that reported by the better performing electricity utilities in the European Union nations and the United States. T&TEC’s performance was closer to that of the utility in Poland which reported the poorest performance among European nations. It was better, with respect to SAIDI and CAIDI, than the utility in the United States reporting the poorest performance in the Institute of Electronic and Electrical Engineers (IEEE’s) benchmarking survey⁸. Performance with respect to CAIDI compared favourably to what pertained in most of the jurisdictions for which data was available while surpassing that of the mid-performing utility in the IEEE’s benchmarking survey. In general, it can be inferred that customers in Trinidad and Tobago can expect to experience a higher frequency of unplanned outages in comparison with customers in other jurisdictions. However, the electrical supply may possibly be restored within times comparable with most of the jurisdictions listed in table 10.

TABLE 10– NETWORK RELIABILITY METRICS VARIOUS COUNTRIES 2012-2013

Country	SAIDI		SAIFI		CAIDI	
	2012	2013	2012	2013	2012	2013
UK ^a	55	55	0.6	0.59	92	93
Italy ^a	45	42	1.74	1.63	26	26
Netherlands ^a	27	23	0.32	0.3	84	77
Portugal ^a	78	89	1.62	1.75	48	51
Poland ^a	254	255	3.42	3.02	74	84
United States ^b (median value)	236	181	1.5	1.21	157	150
United States ^b (maximum value)	6170	1854	4.2	3.51	1469	528
Trinidad and Tobago ^c	464	398	5.71	5.21	81	76

Sources: a. Council of European Energy Regulators, Benchmarking Report 5.2 on the Continuity of Electricity Supply Data update, February 2015
b. Institute of Electronic and Electrical Engineers (IEEE) United States, Distribution Reliability Working Group, Benchmarking 2012 and 2013 Results
c. Trinidad and Tobago Electricity Commission

⁸ The IEEE Distribution Reliability Working Group’s benchmarking exercise is conducted across the United States of America and typically has more than 100 reporting utilities. The data is presented in quartiles and the median and maximum reported metrics have been extracted from the reports.

5.19 Customer service measures relate to the service provider's performance in meeting customer requirements in a number of areas. T&TEC has not been able to track performance against the following specified customer service parameters due to the technical limitations of its communication system:

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

Discussions between the RIC and T&TEC will continue in order to determine how soon this aspect of quality of service can be effectively recorded.

Q2. What are your concerns with respect to the service provider's performance? Please explain why?

6 Proposed Quality of Service Standards

6.1 In reviewing the current standards and proposing amendments, the RIC took into consideration the following factors:

- a. the current areas of concern to customers; and
- b. the operating conditions of the service provider, as the standards need to be realistic and technically feasible.

6.2 The standards will continue to allow for the exclusion of events, where the standards have not been met, due to exceptional circumstances outside of the control of the utility, such as, hurricanes, and major flooding. T&TEC is required to submit an application for approval by the RIC for instances of non-compliance occurring under such circumstance, and these will be examined on a case-by-case basis.

6.3 The RIC had identified by reviewing the complaints received from customers that the following customers' priorities were not fully represented in the requirements laid out in the current QSS schemes:

- a) The time taken to receive a new electricity connection in certain circumstances;
- b) Specific issues with the quality of their electricity supply with respect to statutory requirements; and
- c) The reliability of their electricity supply with respect to the number of outages that affect them.

Guaranteed Standards

6.4 Detailed explanations and definitions of the guaranteed standards are presented below, followed by a summary of this information in table 12. Of the current standards, it is proposed that all, except GES5 and 7 be retained with no changes to the performance levels. GES5 is being modified to address customers' complaints about the quality of the three phase voltage supply. GES7 is being modified to address customers' complaints about inordinate delays in obtaining new connections especially those that entail capital works. T&TEC will be required to commence automatic payments for GES1 by the beginning of June 2017. If T&TEC is unable to proceed with automatic payment for non-compliance under GES1, it is proposed that the value of claims be estimated and retained in an escrow account to be used to fund specific projects targeted to improve the reliability of supply to worst affected customers.

EXPLANATIONS AND PERFORMANCE MEASURES

GES1 Restoration of Supply after Unplanned Outage on the Distribution System

Performance Measure In the event of a failure of supply to customers, the service provider must restore supply within 10 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 residential customers or \$600 for non-residential customers, and a further \$60 and \$600 respectively for each additional period of 12 hours in which supply is not restored for a maximum of three additional periods.

There are a range of causes for interruptions, including storms, lightning 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, T&TEC can apply to the RIC requesting that interruptions due to these circumstances to be excluded from consideration. These exemptions have to be approved by the RIC before being applied by T&TEC.*

RIC Consideration **The RIC considers that 10 hours is an appropriate period of time for restoration of the electrical supply given typical conditions.**

GES2 Billing Punctuality. Time for first bill to be dispatched⁹ after service connection

Performance Measure Provider must dispatch 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 dispatch the bill within the specified time, a payment of \$50 must be made to the customer.

RIC Consideration **The RIC considers the dispatch of the first bill an important requirement on the part of the service provider in order to ensure that the customer is afforded the opportunity to review the bill in a reasonable period of time to**

* 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.

⁹ Dispatch refers to the agreed means of delivery of bills between T&TEC and the customer. May include traditional mailing or the electronic transmission of bills.

mitigate against the impact of any billing discrepancies. The RIC will standardize the minimum level of compensation at \$60.

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

Performance Measure The service provider must restore service to a customer within 24 hours after the overdue amount, including the reconnection fee, has been settled by the customer or an agreement on a payment schedule to settle the overdue amount has been reached. If the service provider then fails to reconnect within 24 hours, a payment equal to the reconnection fee must be paid to the customer.

RIC Consideration **The RIC considers that 24 hours is an appropriate period of time for the reconnection of the electrical supply given typical conditions.**

GES4 Making and Keeping Appointments

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

RIC Consideration **The RIC considers that the customer's commitment to be available at the date and time that is arranged should be respected by the service provider. The RIC will standardize the minimum level of compensation at \$60.**

GES5 Investigation of Voltage Complaints

Performance Measure 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.

RIC Consideration **The RIC has received complaints from some customers of cases in which their three phase equipment either cannot be operated or has been damaged by voltage imbalance in the three phase supply from T&TEC. This is in addition to the low and high voltage complaints that are typically reported by customers. The RIC will standardize the minimum level of compensation at \$60.**

GES5 Proposed Performance Measure A voltage irregularity occurs when the electricity supply is either outside the statutory voltage range or there is a variation between phases greater than $\pm 2\%$ in the case of a three-phase voltage supply. The service provider must evaluate the prevailing conditions within 24 hours of receiving a customer's voltage complaint. In instances where a visit to the customer's premises is not required the service provider must correct the problem and notify the customer of the corrective action taken within 24 hours of the report. Where a visit is deemed to be necessary, the service provider must visit within 24 hours of the report and then has 15 working days of the report to correct the problem and notify the customer of the corrective action taken. If the service provider does not evaluate, carry out a required visit or correct the voltage irregularity within the stipulated time frames, a payment of \$60 to residential customer or \$600 to non-residential must be made.

The service provider is required to maintain a balanced three-phase voltage at the point of supply to the customer's electrical installation subject to a variation of $\pm 2\%$, measured as mean 10 minutes root mean square values. For delays due to difficulties in obtaining the necessary permission from external agencies, for example, the Electrical Inspectorate Department or problems arising due to defects in the customer's installation, T&TEC can apply to the RIC requesting that such incidents be excluded from consideration. These exemptions have to be approved by the RIC before being applied by T&TEC.

GES6 Responding to Billing and Payment Queries

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

RIC Consideration **The RIC considers that 15 working days is an appropriate period of time for the service provider to process the customer’s query. The RIC will standardize the minimum level of compensation at \$60.**

GES7 New Connection of Supply

Current Performance Measure 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 also apply where the date for connection is mutually agreed upon between the service provider and the customer. 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.

RIC Consideration **The existing standard sought to focus on the issue of delays in completing new connections of supply after all installation works have been completed by both the customer and the service provider (when necessary). However, customers have reported that they are experiencing inordinate delays in the completion of the surveys for new connections, the estimation of costs and the construction of additional infrastructure (network augmentation works). The proposed revision to the performance measures and required performance units under this standard, see table 11, is intended to address these issues. The RIC will standardize the minimum level of compensation at \$60.**

Proposed Performance Measure Execution of Capital Works and New Connection of Supply

Simple connections: - For connections that will require no construction works on the part of the service provider.

- A. 1. The service provider must complete the preliminary survey for customers who are located within 30 metres of the network, within 3 working days of the request.
- A. 2. The service provider must install the service drop and meter after the

customer has executed any ancillary works¹⁰ as directed by the service provider and submitted all payments and documentation, including a valid certificate of inspection from the Electrical Inspection Department of the Government within 3 working days. This requirement will also apply from a date mutually agreed upon between the service provider and the customer that extends beyond the 3 working days.

Complex connections: -

- B. 1. In instances where network augmentation works are required, the service provider must complete a preliminary survey for residential and commercial customers who are located within 100 metres of the network, within 3 working days of the request.
- B. 2. The service provider must provide the estimate of costs within 5 working days of all documents being provided by the customer.
- B. 3. The service provider must complete the construction of augmentation works within 15 working days of submission of any required payments and agreements signed by the customer.
- B. 4. The service provider must complete the new connection of supply after submission of all payments and documentation, including a valid certificate of inspection from the Electrical Inspection Department of the Government within 3 working days. This requirement will also apply from a date mutually agreed upon between the service provider and the customer that extends beyond the 3 working days.
- C. 1. In instances where network augmentation works are required, the service provider must complete a preliminary survey for residential and commercial customers who are located greater than 100 metres of the network, within 3 working days of the request.
- C. 2. The service provider must provide the estimate of costs within 7 working days of all documents being provided by the customer.
- C. 3. The service provider must complete the construction of augmentation works within 20 working days of submission of any required payments and

¹⁰ Ancillary works include the installation/relocation of customer's private poles and other adjustments to the customer's installation to ensure the safe and reliable supply of electricity.

agreements signed by the customer.

- C. 4. The service provider must complete the new connection of supply after submission of all payments and documentation, including a valid certificate of inspection from the Electrical Inspection Department of the Government within 3 working days. This requirement will also apply from a date mutually agreed upon between the service provider and the customer that extends beyond the 3 working days.
- D. 1. The service provider must complete a preliminary survey for industrial customers, within 3 working days of the request.
- D. 2. The service provider must provide the estimate of costs within 15 working days of all documents being provided by the customer.
- D. 3. The service provider must complete the construction of augmentation works within the time frame mutually agreed to by the customer and submission of any required payments and agreements signed by the customer.
- D. 4. The service provider must complete the new connection of supply after submission of all payments and documentation, including a valid certificate of inspection from the Electrical Inspection Department of the Government within 3 working days. This requirement will also apply from a date mutually agreed upon between the service provider and the customer that extends beyond the 3 working days.

If the service provider fails to fulfil the aforementioned obligations, a payment of \$60 must be made to residential customers and \$600 to non- residential customers.

TABLE 11 – GES7 ORIGINAL AND PROPOSED PERFORMANCE MEASURES

	Code	Service Description	Performance Measure	Required Performance Units	Payment per Customer
Original	GES7	Connection to supply	(Simple connection) Service drop and meter to be installed. (Complex connection) Meter to be installed after network augmentation.	Within 3 working days	\$50 (residential & non-residential)

	Code	Service Description	Performance Measure	Required Performance Units	Payment per Customer
Proposed	GES7	Execution of Capital Works and new Connection to Supply:			
		A. Within 30 metres. (Where no construction works on the part of the service provider are required.)	1. Completion of the preliminary survey.	Within 3 working days of request.	\$60 for residential and \$600 non-residential
			2. Service drop and meter to be installed.	Within 3 working days.*	\$60 for residential and \$600 non-residential
		B. Within 100 metres for residential and commercial customers. (Where construction works on the part of the service provider are required.)	1. Completion of preliminary survey.	Within 3 working days of request.	\$60 for residential and \$600 non-residential
			2. Provision of estimate.	Within 5 working days of all documents being provided by the customer.	\$60 for residential and \$600 non-residential
			3. Completion of construction works.	Within 15 working days of submission of any required payments and agreements signed by the customer.	\$60 for residential and \$600 non-residential
			4. Meter to be installed.	Within 3 working days of submission of all payments and documentation.*	\$60 for residential and \$600 non-residential
		C. Greater than 100 metres for residential & commercial customers. (Where construction works on the part of the service provider are required.)	1. Completion of preliminary survey.	Within 3 working days of request.	\$60 for residential and \$600 non-residential

	Code	Service Description	Performance Measure	Required Performance Units	Payment per Customer
Proposed	GES7	C. Greater than 100 metres for residential & commercial customers. (Where construction works on the part of the service provider are required.)	2. Provision of estimate.	Within 7 working days of all documents being provided by the customer.	\$60 for residential and \$600 non-residential
			3. Completion of construction works.	Within 20 working days of submission of any required payments and agreements signed by the customer.	\$60 for residential and \$600 non-residential
			4. Meter to be installed.	Within 3 working days of submission of all payments and documentation.*	\$60 for residential and \$600 non-residential
		D. Industrial customers	1. Completion of preliminary survey.	Within 3 working days of request.	\$600
			2. Provision of estimate.	Within 15 working days of all documents being provided by the customer.	\$600
			3. Completion of construction works.	Within the time frame mutually agreed to by the customer and submission of any required payments and agreements signed by the customer.	\$600
			4. Meter to be installed.	Within 3 working days of submission of all payments and documentation.*	\$600

*The requirements under A. 2; B. 4; C. 4; and D. 4. can also apply from a date mutually agreed upon between the service provider and the customer that extends beyond the 3 working days.

GES8 Payments owed under Guaranteed Standards

Performance Measure Compensatory payments must be credited to the customer’s bill within 30 working days for non-residential and 60 working days for residential customers for automatic payments guaranteed under GES2 to 7 and for claims accepted by the service provider under GES1 (until payment is made automatic under this standard). If the service provider fails to credit a payment within the specified timeframe, an additional payment of \$50 must be made to the customer. The timeframe will be suspended pending the RIC’s deliberation of a formal request by T&TEC to exclude an instance of non-compliance from consideration. The stipulated timeframe will then resume upon receipt of official correspondence indicating that the RIC has determined that T&TEC must treat the matter as a valid instance of non-compliance by T&TEC.

RIC Consideration **The RIC considers that 30 working days is an appropriate period of time for the service provider to credit payment to customers’ account. The RIC will standardize the minimum level of compensation at \$60.**

The proposed Guaranteed Standards, performance levels and penalties are summarized in table 12.

TABLE 12 – PROPOSED GUARANTEED STANDARDS, PERFORMANCE LEVELS AND PENALTIES

Code	Service Description	Performance Level	Penalty Payments
GES1	Restoration of supply after unplanned outage on the distribution system.	Within 10 hours.	\$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 dispatched after service connection.	Within 60 days residential. Within 30 days non-residential.	\$60 for both residential and non-residential
GES3	Reconnection of service after settling of overdue amounts or agreement on payment schedule.	Within 24 hours.	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.	\$60 for both residential and non-residential
GES5	Investigation of voltage complaints (high/low voltage and imbalanced three phase voltage).	Visit within 24 hours. Correct within 15 working days.	\$60 residential \$600 non-residential
GES6	Responding to billing and payment queries.	Substantive reply within 15 working days.	\$60 for both residential and non-residential
GES7	Execution of capital works and new connection of supply. A. Within 30 metres. (Where no construction works on the part of the service provider are required.) 1. Completion of preliminary survey.	Within 3 working days of request.	\$60 residential \$600 non-residential
	A. Within 30 metres. 2. Service drop and meter to be installed.	Within 3 working days.	\$60 residential \$600 non-residential
	B. Within 100 metres. (Where construction works on the part of the service provider are required.) 1. Completion of preliminary survey.	Within 3 working days of request.	\$60 residential \$600 non-residential
	B. Within 100 metres. 2. Provision of estimate.	Within 5 working days of all documents being provided by the customer.	\$60 residential \$600 non-residential

Code	Service Description	Performance Level	Penalty Payments
GES7	B. Within 100 metres. 3. Completion of construction works.	Within 15 working of submission of any required payments and agreements signed by the customer.	\$60 residential \$600 non-residential
	B. Within 100 metres. 4. Meter to be installed.	Within 3 working days of submission of all payments and documentation.*	\$60 residential \$600 non-residential
	C. Greater than 100 metres. (Where construction works on the part of the service provider are required.) 1. Completion of preliminary survey.	Within 3 working days of request.	\$60 residential \$600 non-residential
	C. Greater than 100 metres. 2. Provision of estimate.	Within 7 working days of all documents being provided by the customer.	\$60 residential \$600 non-residential
	C. Greater than 100 metres. 3. Completion of construction works.	Within 20 working days of submission of any required payments and agreements signed by the customer.	\$60 residential \$600 non-residential
	C. Greater than 100 metres. 4. Meter to be installed.	Within 3 working days of submission of all payments and documentation.*	\$60 residential \$600 non-residential
	D. Industrial 1. Completion of preliminary survey.	Within 3 working days of request.	\$600
	D. Industrial 2. Provision of estimate.	Within 15 working days of all documents being provided by the customer.	\$600
	D. Industrial 3. Completion of construction works.	Within the time mutually agreed with the customer and submission of any required payments and agreements signed by the customer.	\$600
D. Industrial 4. Meter to be installed.	Within 3 working days of submission of all payments and documentation.*	\$600	
GES8	Payments owed under guaranteed standards.	Within 30 working days for non-residential and 60 working days for residential.	\$60 for both residential and non-residential

* The requirements under GES 7 A. 2; B. 4; C. 4; and D. 4 can also apply from a date mutually agreed upon between the service provider and the customer that extends beyond the 3 working days.

RIC's Proposal for Compensatory Payments

6.5 In light of earlier discussion, the RIC is of the view that the compensatory payments will continue to be set at a quantum to incentivize the service provider to improve the level of its service. This may not necessarily compensate the cost of the inconvenience suffered by consumer but it will bear some relation to the customer's bill. The RIC proposes to fix the amounts that have been set for the residential customers at \$60.00 and non-residential customers at \$600.00 for the different guaranteed standards. These amounts are approximately 21% of the average bi-monthly bill per residential customers, and 2% to 20% of the average monthly bill per class of non-residential customers respectively.

6.6 Compensatory payment for non-compliance for all standards except GES1 shall continue to be automatic. T&TEC will be required to commence automatic compensatory payments for non-compliance under GES1. If T&TEC is unable to comply at the time, it is proposed that the number of affected customers be estimated and an amount equivalent to the collective compensatory payment be retained into a separate fund for a network quality improvement programme of the worst served areas. The RIC, after consultation with T&TEC, will approve projects under this programme to improve service to customers experiencing the lowest levels of network reliability.

6.7 Compensatory Payments Claim Procedure for non-compliance of GES1

- a) The service provider will make the forms for the submission of a claim readily available at all its service centres and on its website.
- b) Claims must be submitted by the customer within 3 months of occurrence of the event.
- c) The service provider may apply for exclusion of the event as outlined in s6.2.2.
- d) The service provider must accept or deny the claim within 30 working days of receipt of customer's claim in instances where the service provider has not exercised the exemption/exclusion procedure. Where the exemption/exclusion procedure has been evoked, the service provider's response period will commence from receipt of the RIC's decision on the matter.
- e) If the service provider accepts the claim, it must be paid in accordance with GES8.
- f) If the claim is denied, the service provider must provide the customer with a reason for its decision.
- g) The customer has the right to make a complaint to the RIC if he/she is dissatisfied with the service provider's decision.

(Will be discontinued upon institution of automatic compensatory payment for GES1)

6.8 *Exemptions/Exclusions Procedure*

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

- a) the relevant event with details of the date and time of occurrence;
- b) the proposed extent of the exclusion; and
- c) the reasons why the event should be considered for exclusion.

Overall Standards

6.9 The detailed explanations and definitions for the proposed Overall Standards and performance levels are presented below, and summarized in table 13. The key proposed changes are as follows:

- a) OES1 and OES2 are to be withdrawn; and
- b) A new standard with respect to the reliability of the service provider's network has been included to address customer concerns in this regard.

EXPLANATIONS AND PERFORMANCE MEASURES

OES1	Frequency of Meter Reading
Performance Measure	The service provider was 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.
RIC Consideration	There has been a high installation rate of AMI meters and the number of meters to be manually read is small. The service provider has demonstrated the ability to read these meters to set schedules and maintained 100% compliance over the period 2004 to 2015. Accordingly, it is proposed to remove this standard.
OES2	Billing Punctuality. Mailing of bills after Meter Reading
Performance Measure	The Service provider is required to mail at least 98% of all bills within 10 working days after meter reading.
RIC Consideration	There is a high installation rate of AMI meters and the number of bills not generated by an automated process is small. The service provider has demonstrated the ability to dispatch bills to set schedules and maintained

100% compliance over the period 2012 to 2015. Accordingly, it is proposed to remove this standard.

OES1 (New) Network Reliability

RIC Consideration The overall network reliability statistics for the service provider for unplanned outages has been improving over the period 2004 to 2015, however, performance varies by distribution area and consequently some customers receive a more reliable supply of electricity than others. The RIC is of the opinion that operational and maintenance measures can be implemented consistently throughout the distribution areas to improve the reliability of supply to all customers. The objective is to have the values for SAIDI and SAIFI reduced in the worse performing distribution areas while maintaining or improving the values of these indices in the other distribution areas.

Proposed Performance Measure The service provider is required to maintain the yearly network reliability metrics for unplanned outages (excluding force majeure events) for **each of its distribution areas** to within limits set by the RIC. In the first year that the proposed standards are in effect, the target for SAIDI will be less than or equal to 400 minutes and the target for SAIFI will be less than or equal to 4.8.

OES3 Responding to Meter Problems

Performance Measure 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. **(To be renumbered as OES2.)**

RIC Consideration There has been a high installation rate of AMI meters. The service provider is expected to process customer complaints efficiently through the use of the installed Advanced Metering Infrastructure.

OES4 Prior notice of Planned Interruptions

Performance Measure 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 to ensure that the planned interruption does not extend beyond the advertised duration.

(To be renumbered as OES3.)

RIC Consideration **The service provider has the responsibility to ensure that customers are given sufficient notice of planned interruptions in order to make alternative arrangements during the loss of the electricity supply.**

OES5 **Street Lights Maintenance**

Performance Measure The service provider is required to repair 100% of failed street lights under its control, with the exception of highway lighting, within 7 working days after receiving notification. The service provider is required to repair 100% of failed highway lighting within 14 working days of it being reported. **(To be renumbered as OES4.)**

RIC Consideration **The RIC considers the provision of reliable lighting of the country's roads and highways as an important requirement on the part of the service provider.**

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

Current Performance Measure The service provider is required to provide customers with a substantive response to written complaints within 10 working days and to communicate the final position within 30 working days thereafter. **(To be renumbered as OES5.)**

RIC Consideration **This performance measure was simplified in the last revision of the QSS. However, customers have complained of the timeliness for the service provider to issue a response and address their complaints.**

Proposed Performance Measure The service provider is required to respond after receipt of written queries/ requests within 5 working days. The service provider is required to complete an investigation of the issue, resolve the matter and communicate its final position to the customer within 10 working days thereafter. In the event that a third party is involved, e.g. An insurance claim, the service provider is

required to complete an investigation of the issue, resolve the matter and communicate its final position to the customer within 15 working days thereafter.

OES7 Notifying customer of receipt of claim under Guaranteed Standard GES1

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

(To be renumbered as OES6.)

RIC Consideration **This standard will be discontinued when the automatic payment for breaches under GES1 commences.**

TABLE 13 – PROPOSED OVERALL STANDARDS AND PERFORMANCE LEVELS

Code	Service Description	Performance Level
OES1	Maintaining the network reliability for unplanned outages (excluding force majeure events) for each of its distribution areas. <u>New Standard.</u>	Maintain the yearly network reliability metrics for unplanned outages (excluding force majeure events) for each of its distribution areas within the following limits: SAIDI to within 400 minutes; and SAIFI to within 4.8.
OES2	Responding to meter problems Formerly OES3.	Visit or substantive reply within 10 working days 95% of the time
OES3	Prior Notice of planned outages Formerly OES4.	At least 3 days advance notice of planned outages 100% of the time
OES4	Street lights maintenance. Formerly OES5.	100% of failed street lights with the exception of highway lighting repaired within 7 working days. 100% of failed highway lighting repaired within 14 working days.
OES5	Response to customer queries/requests (written) Formerly OES6.	Respond after receipt of written queries/ requests within 5 working days. Complete investigation, resolve issue and communicate final position within 10 working days thereafter. Complete investigation, resolve issue and communicate final position, if third party is involved (e.g. Insurance claim) within 15 working days thereafter.
OES6	Notifying customers of receipt of claim under guaranteed standard GES1. Formerly OES7.	100% of customers to be notified of receipt of claim within 10 working days.

Q3. What are your views on the retention of GES1, GES2, GES3, GES4, GES6 and GES 8? Would the performance measurements of these standards have to be adjusted, and if so, how?

Q4. The range of issues under GES5 which pertains to voltage complaints has been expanded to include imbalanced three phase voltages. What are your views with regard to the adjustment made to this standard?

Q5. A number of additional performance measures have been introduced under GES7 based on the concerns expressed by customers. What are your views with regard to the adjustment made to this standard?

Q6. The minimum compensatory payment level has been set at \$60.00. Under GES1, GES5 and GES7 the compensatory payment level for residential customers has been set at \$60.00 and for non-residential customers it has been set at \$600.00 based on the anticipated effect that non-compliance with these standard will impose on the respective categories of customers. Do you agree that it is appropriate to set differing payment levels for the different categories of customers? What method should be used to determine payment levels going forward and how frequently should this review occur?

Q7. OES1 and OES2 are being removed due to the benefits of the Automatic Metering Infrastructure (AMI) that has been installed in over ninety percent of T&TEC's network and the very high level of performance achieved over time. Are you in agreement with this proposition?

Q8. A new standard pertaining to T&TEC's network reliability performance has been proposed under OES1. What are your views on the establishment of this new standard and the proposed performance measures and requirements?

Q9. What are your views on the retention of the new OES2, OES3, OES4, and OES6? Would the performance measurements of these standards have to be adjusted, and if so, how?

Q10. The range of issues under the new OES5 which pertains to the response to customer queries has been expanded to include investigating and resolving the query. What are your views with regard to the adjustment made to this standard?

7 MONITORING AND ENFORCING STANDARDS

7.1 The enforcement of standards by the regulator has a significant bearing on the quality of service that the service provider guarantees its customers. Therefore, it is of fundamental importance that the information provided to the RIC be reliable, consistent over time and verifiable. However, the RIC has experienced a number of difficulties in achieving its monitoring and compliance objectives under the QSS scheme largely due to:

- a) the lack of a culture of compliance of the service provider;
- b) the lack of a more formalized independent audit approach;
- c) the lack of policies, practices and procedures of the service provider to ensure compliance; and
- d) the reliability and quality of information reported by the service provider.

7.2 There has been some improvement in the way that the service provider reports on its performance under the standards in conjunction with discussions between the RIC and T&TEC to standardize the reporting format in order to improve the collation and submission of information by the service provider. The RIC is in the process of finalizing the Regulatory Reporting and Compliance Manual (RRCM) which will promote knowledge of T&TEC's regulatory obligations both for T&TEC and other stakeholders, and which is intended to foster an increased willingness on the part of T&TEC to comply with obligations, as the document simplifies the task of reporting and sets out the required information in a straightforward manner. T&TEC's obligations under the QSS will be included in the RRCM.

7.3 To improve the accuracy and consistency of information, T&TEC will be required to comply with the following measures:

- a) adherence to consistent definitions of the standards;
- b) submission, on a quarterly basis, of the information specified in the revised information templates, disaggregated by Distribution Area and month, within one calendar month of the end of the respective quarter; and
- c) submission of the documented procedures for the collation and internal audit of the information requirements under the QSS, which will outline:
 - (i) the methods for collating and reviewing raw data; and
 - (ii) the processes involved in the collection, analysis, review, approval and reporting of the information submitted to the RIC.

7.4 The RIC recognises that it is crucial that customers are well aware of the standards of service that the service provider is required to provide and the level of compensation that they are entitled to receive in the event that the service provider does not adhere to the Guaranteed Standards. The RIC anticipates that an informed public will demand that the indicative levels of service established in the QSS be met by the service provider and will readily report any shortcomings to the RIC. To ensure that the public is so informed, T&TEC will thus be required to widely disseminate information on the standards by:

- a) publishing information on the standards at least once per quarter, and at least in one daily newspaper widely circulating in Trinidad and Tobago;
- b) providing information, on the standards and how customers can claim for compensation under GES1 (until automatic compensation is instituted for GES1). At least twice per year, this should be included in customers' bills;
- c) ensuring that claim forms are readily available at all T&TEC customer service offices/centres (until automatic compensation is instituted for GES1);
- d) displaying the standards prominently in all T&TEC customer service offices/centres;
- e) providing to the RIC annual reports on its efforts to promote the standards (including evidence of newspaper advertisements); and
- f) making available to the public, its complaints reporting process and publishing the appropriate contact numbers on a regular basis.

7.5 The RIC will publish, on a semi-annual and annual basis, the performance of the service provider with respect to the QSS for the benefit of the public and other stakeholders.

Q11. Measures have been proposed to improve the accuracy and consistency of data submissions by the service provider. Are you in agreement with these propositions? If you do not agree, please explain why?

Q12. Measures have been proposed to increase the public's awareness of the QSS scheme. Are you in agreement with these propositions? If you do not agree, please explain why?

8 SUMMARY OF ISSUES FOR CONSULTATION

8.1 The following questions have been specifically raised in this consultative document for the consideration of all stakeholders with respect to the review of the QSS:

Q1. What are your views with respect to the RIC's approach to continue with the implementation of a system of Guaranteed and Overall Standards?

Q2. What are your concerns with respect to the service provider's performance? Please explain why?

Q3. What are your views on the retention of GES1, GES2, GES3, GES4, GES6 and GES8? Would the performance measurements of these standards have to be adjusted, and if so, how?

Q4. The range of issues under GES5 which pertains to voltage complaints has been expanded to include imbalanced three phase voltages. What are your views with regard to the adjustment made to this standard?

Q5. A number of additional performance measures have been introduced under GES7 based on the concerns expressed by customers. What are your views with regard to the adjustment made to this standard?

Q6. The minimum compensatory payment level has been set at \$60.00. Under GES1, GES5 and GES7 the compensatory payment level for residential customers has been set at \$60.00 and for non-residential customers it has been set at \$600.00 based on the anticipated effect that non-compliance with these standard will impose on the respective categories of customers. Do you agree that it is appropriate to set differing payment levels for the different categories of customers? What method should be used to determine payment levels going forward and how frequently should this review occur?

Q7. OES1 and OES2 are being removed due to the benefits of the Automatic Metering Infrastructure (AMI) that has been installed in over ninety percent of T&TEC's network and the very high level of performance achieved over time. Are you in agreement with this proposition?

Q8. A new standard pertaining to T&TEC's network reliability performance has been proposed under OES1. What are your views on the establishment of this new standard and the proposed performance measures and requirements?

Q9. What are your views on the retention of the new OES2, OES3, OES4, and OES6? Would the performance measurements of these standards have to be adjusted, and if so, how?

Q10. The range of issues under the new OES5 which pertains to the response to customer queries has been expanded to include investigating and resolving the query. What are your views with regard to the adjustment made to this standard?

Q11. Measures have been proposed to improve the accuracy and consistency of data submissions by the service provider. Are you in agreement with these propositions? If you do not agree, please explain why?

Q12. Measures have been proposed to increase the public's awareness of the QSS scheme. Are you in agreement with these propositions? If you do not agree, please explain why?

8.2 Additional issues related to the regulation of the Quality of Service Standards for the Electricity Transmission and Distribution Sector can also be raised by interested parties and the RIC will give due consideration to all submissions. Respondents are kindly asked to reference their comments to the relevant subsections and enumerated paragraphs within the document.