

**QUALITY OF SERVICE
STANDARDS**

**ANNUAL PERFORMANCE
REPORT
2017**

**ELECTRICITY TRANSMISSION
AND DISTRIBUTION SECTOR**

August
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Information
Document

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EXECUTIVE SUMMARY

The Regulated Industries Commission (RIC) is a statutory body established under the Regulated Industries Commission Act No. 26 of 1998. Under Section 6 of the Act, the RIC has the power to prescribe standards of service, monitor compliance, and impose sanctions for non-compliance. In order to fulfil this mandate, the RIC implemented the Quality of Service Standards (QSS) for the Electricity Transmission and Distribution Sector in 2004. The standards were revised in 2009 and implemented from April 2010.

This is the 2017 Annual Performance Report on the QSS and it presents an analysis of the performance of the Trinidad and Tobago Electricity Commission (T&TEC) with respect to the QSS for the period January to December 2017. The performance for 2017 is compared with that of 2016. The information utilized in this report was reported by T&TEC and verified by the RIC.

Summary of Performance: Guaranteed Standards

Guaranteed Standards are those that set service levels which must be met for each individual customer by the service provider. Under these standards, the utility is required to make compensatory payments to affected customers if it fails to provide the level of service stipulated. There are eight guaranteed standards for T&TEC, and all but the first (GES 1) carry automatic compensatory payments for breaches¹.

Generally, T&TEC maintained the same level of performance across all the standards in 2017, with compliance rates that were similar to those in 2016. This is presented in table ES1. There were 16,632 breaches under the Guaranteed Standards during 2017 compared with the 5,806 breaches in 2016. This significant increase was largely due to increases in the breaches occurring under GES 1 (Response and Restoration Time) moving from 5,726 in 2016 to 16,576 in 2017. A tropical storm, which occurred in June 2017, significantly affected response and restoration time for over 8,000 customers. In August, September and October there was more inclement weather, which also resulted in a high number of outages and lengthy response and restoration times. The remainder of breaches are distributed as shown in table ES2.

¹A breach occurs when the service provider fails to achieved the stipulated level of performance for a standard.

Table ES1 - Compliance Rates under the Guaranteed Standards, 2017

Code	Service Description	Performance Measure	2017 Compliance Rates (%)	2016 Compliance Rates (%)
GES1	Response and Restoration Time after unplanned (forced) outages on the distribution system.	Time for restoration of supply to affected customers - within 10 hours	99.08	99.64
GES2	Billing Punctuality (new customers)	Time for first bill to be mailed after service connection: (a) Residential – within 60 days (b) Non-Residential –within 30 days	99.90 100.0	99.80 98.10
GES3	Reconnection After Payment of Overdue Amounts or Agreement on Payment Schedule	Time to restore supply after payment is made - within 24 hours	99.91	99.95
GES4	Making and Keeping Appointments	Where required, appointments will be made on a morning or afternoon basis	100.0	100.0
GES5	Investigation of Voltage Complaints	(i) Response - All voltage complaints to be responded to within 24 hours. (ii) Rectification- All voltage complaints to be rectified within 15 working days.	99.91 98.40	99.97 98.70
GES6	Responding to Billing and Payment Queries.	Substantive reply within 15 working days.	100.0	100.0
GES 7	New Connection of Supply	Service drop and meter to be installed within 3 working days.	99.90	99.90
GES 8	Payments Owed under Guaranteed Standards	Time to credit compensatory payment: (i) Residential – within 30 working days (ii) Non-Residential – within 60 working days	0.0 100	0.0 N/A

N/A – Not Applicable

T&TEC is currently unable to identify the individual customers that are affected by breaches of GES 1². Hence, customers are still required to submit claims for breaches under this standard. Seventeen claims were made by customers. Five of the customers were compensated, and T&TEC received exemption for 12 of the claims due to *Force Majeure* conditions created by the tropical storm. Of the remaining 56 breaches that were eligible for automatic compensation, T&TEC made

² The Outage Management System (OMS) module of the Advanced Metering Infrastructure (AMI), which will facilitate the identification of individual customers affected by breaches occurring under GES 1, was rolled out in the Central Distribution area. The second phase of the roll out is being done in the Distribution South area.

payments to 46 customers totalling \$3,864. The total number of breaches and payments due under the Guaranteed Standards in 2017 is shown in Table ES2.

Table ES2 - Breaches and Compensatory Payments due under the Guaranteed Standards, 2017

Standard	Total Number impacted by Standard	Number of Breaches	Minimum Payment Due (\$)	Total Number of Claims Submitted*/Processed	Total Payments made (\$)
GES 1	1,803,401(customers affected by outages)	16,576	994,560	17*/5	300
GES 2	10,688(requests for new connections)	7	350	7	350
GES 3	28,727(arrangements/ payments)	23	2,714	23	2,714
GES 4	1,618(appointments)	0	0	0	0
GES 5	3,479 (voltage complaints)	8	400	8	400
GES 6	16,610 (queries)	0	0	0	0
GES 7	12,629(requests)	13	650	8	400
GES 8	93(payments owed)	5	250	0	0
TOTAL		16,632	998,924	51	4,164

Summary of Performance: Overall Standards

The overall standards cover areas of service where it is usually not appropriate or feasible to give individual guarantees, but where the expectation of the stakeholders is that the utility will provide pre-determined minimum levels of service. These standards generally cover the reliability of service affecting a group of customers. Compliance rates for T&TEC's performance under the overall standards in 2017 are presented in table ES3.

T&TEC's performance worsened under the overall standards. As in previous years, performance under OES 1 (Frequency of Meter Reading), and OES 7 (Notifying Customers of Receipt of Claim under Guaranteed Standard GES 1) achieved full compliance. There was marginal improvement in the performance under OES2 (Billing Punctuality) and OES 6 (Response to Customer Queries/Requests (written)). However, T&TEC's performance under OES 3 (Responding to Meter

Problems) OES 4 (Prior Notice of Unplanned Outages) and OES 5 (Street Lights Maintenance) declined.

Table ES3 - Compliance under Overall Standards, 2017

Code	Description	Required Performance Units	2017 Compliance Rate (%)	2016 Compliance Rate (%)
OES1	Frequency of Meter Reading	(a) 90% of industrial meters should be read every month	100.0	100.0
		(b) 90% of residential and commercial meters read according to schedule	100.0	100.0
OES2	Billing Punctuality	98% of all bills to be mailed within ten (10) working days after meter reading or estimation	94.4	90.2
OES3	Responding to Meter Problems	Visit or substantive reply within 10 working days 95% of the time.	96.8	99.1
OES4	Prior Notice of Planned Outages	3 days advance notice of planned outages 100% of the time	90.9	92.1
OES5	Street Lights Maintenance	Street Lights- within 7 working days	21.3	29.9
		Highway Lights – within 14 working days	57.0	89.6
OES6	Response to Customer Queries/Requests (written)	Time to respond after receipt of queries. Initial Response – within 10 working days	96.7	96.2
		Final Position – within 30 working days	65.6	54.1
OES7	Notifying Customers of Receipt of Claim under Guaranteed Standard GES 1	100% of customers to be notified of receipt of claim within 10 working days.	100.0	100.0

SECTION 1 INTRODUCTION

The RIC is responsible for regulating prices, setting service standards and monitoring performance of service providers in the electricity, water and wastewater sectors. Monitoring quality of service is an important element in the regulatory framework, since it serves to protect the interests of customers in key service areas. The RIC is empowered under Section 6 of its Act to prescribe standards of service for the service providers under its purview, and to impose sanctions for non-compliance. The Quality of Service Standards (QSS) Scheme for the Electricity Transmission and Distribution Sector was first implemented on April 7th, 2004. These standards were subsequently revised and the new standards were implemented from April 2010³. This is the Annual Performance Report for 2017 on the QSS for the Electricity Transmission and Distribution Sector. The data used in this report were supplied by T&TEC.

1.1 Purpose of Document

This report presents an analysis of the performance of T&TEC with respect to the QSS for the year ending December 31st, 2017. It is also intended to inform the public and other stakeholders about the performance of T&TEC.

1.2 Structure of Document

The remainder of this document is structured as follows:

- In Section 2, the performance of T&TEC under each of the eight guaranteed standards is presented;
- Section 3 reports on compensatory payments;
- Section 4 presents the performance of T&TEC under each of the seven overall standards;
- Section 5 provides a summary and conclusion of the report.; and
- In Appendix 1, tables of the guaranteed and overall standards, and the compensatory payment levels for the guaranteed standards, are presented.

³ As at the time of publication of this report, the QSS Scheme was further revised and is awaiting publication in the Gazette. A copy of the revised standards can be found on the RIC's website www.ric.org.tt

SECTION 2 PERFORMANCE REVIEW: GUARANTEED STANDARDS FOR 2017

2.1 Guaranteed Standards

Guaranteed standards established service levels that must be met for each individual customer by the service provider. Under these standards, the utility is required to make compensatory payments to affected customers if it fails to provide the level of service stipulated.

There are eight guaranteed standards, and T&TEC’s 2017 performance in each of these is reviewed.

GES 1: Response and Restoration Times of Supply.

This standard was designed to ensure that T&TEC responds promptly to any unplanned outage and restores supply in the shortest time possible. Accordingly, this standard requires that supply be restored to affected customers within 10 hours after an unplanned outage on the distribution system.

There were 10,686 unplanned outages recorded in 2017, the monthly breakdown of these by area is shown in table 1. This amounts to approximately 29 unplanned outages per day across T&TEC’s network.

Table 1 – No. of Unplanned Outages, 2017

Area	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	TOTAL (2017)	TOTAL (2016)
North	177	203	201	159	211	342	248	212	381	372	183	220	2,909	2,258
South	180	195	182	201	204	249	215	215	324	294	291	269	2,819	2,465
Tobago	14	30	50	41	38	44	21	32	28	27	100	125	550	708
East	37	56	61	56	72	364	215	256	304	320	158	189	2,088	774
Central	141	144	133	133	208	232	252	256	251	235	178	157	2,320	1,911
TOTAL (2017)	549	628	627	590	733	1,231	951	971	1,288	1,248	910	960	10,686	
TOTAL (2016)	627	579	622	678	714	747	665	783	767	564	662	708		8,116

There are a variety of reasons for unplanned outages. Some of the reasons provided by T&TEC in 2017 are listed below. It should be noted that in certain cases, T&TEC was not able to ascertain any cause for the outages, while in other cases there may be multiple reasons provided for a specific outage.

- Blown transformer fuses and blown high tension (HT) fuses,
- Tree contact resulting in burst wires and/or blown fuses,
- Fallen trees due inclement weather,
- Burst HT, low voltage (LV) and neutral conductors/wires,
- Defective equipment (transformers, cables, cut outs),
- Broken insulators, and
- Slack connections on transformers.

There were 185 outages for which restoration took longer than the stipulated 10 hours and the distribution of these outages is shown in table 2.

Table 2 - No. of Unplanned Outages exceeding 10 hours, 2017

Area	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	TOTAL (2017)	TOTAL (2016)
North	1	1	2	1	1	1	6	4	14	4	3	3	41	34
South	0	0	0	0	0	0	0	0	0	8	0	2	10	16
Tobago	0	0	0	0	0	0	0	3	0	6	0	1	10	0
East	2	2	1	0	2	4	6	11	52	19	3	14	116	42
Central	0	0	0	0	0	0	0	0	0	7	0	1	8	2
TOTAL	3	3	3	1	3	5	12	18	66	44	6	21	185	94

Generally, delays in restoration are caused by a combination of events. T&TEC supplied the following reasons for the lengthy restoration times.

- High number of trouble reports,
- Remote location, flooding, landslides and poor terrain,
- Further service crews required. e.g. Daylight crew, line clearing and tree trimming required,
- Inclement weather,

- Complexity of the job,
- Lack of appropriate equipment to conduct repairs,
- Security issues or high risk areas,
- Bee infestation,
- Lack of Personal Protective Equipment, and
- Inability to contact customer.

A breach of GES 1 occurs when an unplanned outage of electricity supply to an individual is not restored within 10 hours of the report being received by the T&TEC. Further breaches occur when the supply is not restored within 22 hours and 34 hours respectively.

Table 3 shows the estimated number of customers affected by outages, and the estimated number of outages not restored within the specified time frames of 10 hours, 22 hours and 34 hours.

Table 3 – No. of Customers Restored after 10 hours, 2017

Item	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL (2017)
No. of customers affected by outages	54,184	118,612	91,632	116,183	118,327	219,191	153,047	163,697	207,332	221,561	183,098	156,837	1,803,401
No. of customers restored after 10 hours (Breach)	23	35	21	15	525	8,702	322	2337	1166	1,042	584	514	15,286
No. of customers restored after 22 hours (Breach)	19	0	1	0	16	195	223	57	212	298	0	0	1,021
No. of customers restored after 34 hours (Breach)	19	0	0	0	0	65	0	0	55	130	0	0	269
Total No. of Breaches	61	35	22	15	541	8,962	545	2,394	1,433	1,470	584	514	16,576
Percentage non-compliance (%)	0.11	0.03	0.02	0.01	0.46	4.09	0.36	1.47	0.69	0.66	0.32	0.33	0.92
Compliance Rate (%)	99.89	99.97	99.98	99.99	99.54	95.91	99.64	98.53	99.31	99.34	99.68	99.67	99.08

The total number of customers affected by outages increased from 1,594,640 in 2016 to 1,803,401 in 2017, and correspondingly, the number of breaches increased from 5,726 to 16,576. This is represented in table 4. Of the 16,576 breaches experienced by 15,286 customers during 2017, seventeen claims were filed by residential customers. Twelve exemptions were granted to T&TEC due to *Force Majeure* conditions created by Tropical Storm Bret. T&TEC paid \$300 in compensatory payments to the five of the remaining claims.

Table 4 - Response and Restoration Times of Supply, 2017

Item	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	TOTAL 2017	TOTAL 2016
Total no. of customers restored after 10 hours (Breaches)	118	9,518	4,372	2,568	16,576	5,726
No. of affected customers	264,428	453,701	523,776	561,496	1,803,401	1,594,640
Percentage non-compliance (%)	0.04	2.10	0.83	0.46	0.92	0.36
Compliance Rate (%)	99.96	97.90	99.17	99.54	99.08	99.64

GES 2: Billing Punctuality (New customers).

This standard seeks to ensure a prompt and efficient billing process. It requires that the first bill after a new service connection is made, be mailed to residential customers within 60 days, and to non-residential customers within 30 days.

There were 10,641 new residential customers connected to supply in 2017. Of these, bills were not mailed to seven of them within the stipulated period. T&TEC performance under this standard was maintained at 99.9% (See table 5). The seven customers were all compensated.

Table 5 - Billing Punctuality for Residential Customers, 2017

Item	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	TOTAL 2017	TOTAL 2016
No. of new Residential customers connected to supply	2,559	2,888	2,369	2,825	10,641	10,766
No. of bills not mailed within 60 days	4	0	3	0	7	21
Percentage Breach (%)	0.2	0.0	0.1	0.0	0.1	0.2
Compliance Rate (%)	99.8	100.0	99.9	100.0	99.9	99.8

There were 47 connection requests from non-residential customers. Bills were mailed to all of them within the stipulated time. Therefore, full compliance was achieved, resulting in a compliance rate of 100% for 2017 (See table 6).

Table 6 - Billing Punctuality for Non-Residential Customers, 2017

Item	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	TOTAL 2017	TOTAL 2016
No. of new Non-Residential customers connected to supply	9	8	13	17	47	54
No. of bills not mailed within 30 days (breach)	0	0	0	0	0	1
Percentage Breach (%)	0.0	0.0	0.0	0.0	0.0	1.9
Compliance Rate (%)	100.0	100.0	100.0	100.0	100.0	98.1

GES 3: Reconnection after payment of overdue amounts or agreement.

T&TEC disconnects customers for the non-payment of arrears. Once these have been settled or an agreement has been reached on a payment schedule, T&TEC is required to restore the service promptly. This standard requires that reconnection of supply be completed within 24 hours after either payment of overdue amounts or an agreement is made.

Of the 30,165 customers disconnected for non-payment of arrears in 2017, eighty-five percent (85%) of them made payments or agreed on a payment schedule. As shown in table 7, twenty-

three customers were not reconnected within 24 hours, resulting in a compliance rate of 99.91%. Twenty of these customers were compensated within the stipulated timeframe.

Table 7 - Reconnection after Payment of Overdue Amounts or Agreement, 2017

Item	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	TOTAL 2017	TOTAL 2016
Total Disconnections	7,582	7,331	7,057	8,195	30,165	31,739
Customers making payments/arrangements	6,698	6,487	5,808	6,776	25,769	28,727
No. not reconnected within 24 hours	3	8	6	6	23	12
Percentage Breach (%)	0.04	0.12	0.10	0.09	0.09	0.04
Compliance Rate (%)	99.96	99.88	99.90	99.91	99.91	99.96

GES 4: Making and Keeping Appointments.

It is sometimes necessary for T&TEC to make appointments to visit customers' premises. In the event that the appointment made by T&TEC is not kept, it is the customer who experiences the greater inconvenience. The standard requires that notice of inability to keep appointments be given to customers at least 24 hours before the appointment. There is non-compliance with the standard if an appointment is not kept within 1 hour of the specified time.

T&TEC reported that 1,618 appointments were made in 2017, and all were kept within 1 hour of the appointed time, resulting in full compliance with this standard (See table 8). However, based on customer complaints and investigation of the appointment making process, it was recognised that T&TEC only recorded appointments that were time specific. There were many other appointments that were not being recorded. The RIC is working with T&TEC to address this situation.

Table 8 - Making and Keeping Appointments, 2017

Item	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	TOTAL 2017	TOTAL 2016
No. of appointments arranged with customers	347	492	486	293	1,618	1,103
No. of appointments not kept within 1hr of appointed time	0	0	0	0	0	0
No. of appointments cancelled or postponed with 24 hours notice	0	0	0	0	0	4
Percentage Breach (%)	0.0	0.0	0.0	0.0	0.0	0.0
Compliance Rate (%)	100.0	100.0	100.0	100.0	100.0	100.0

GES 5: Investigation of Voltage Complaints

T&TEC is governed by the Electricity Supply Rules under the Electricity (Inspection) Act Chapter 54.72 to supply its customers at specified nominal voltages. Supply voltage shall not vary beyond six percent above or below the nominal supply voltage. Where a customer has reported that his supply is outside the permitted voltage range, T&TEC must visit within 24 hours, where a visit is deemed necessary, and rectify the problem within 15 working days. A breach occurs if the service provider fails to visit or correct the problem within the respective periods specified.

There were 3,479 voltage complaints received in 2017. T&TEC determined that 3,199 of these required a visit and responded to all except three within 24 hours. Under this standard, T&TEC is required to identify which complaints are legitimate voltage complaints after the visit. Of the 3,199 visits, T&TEC reported that 641 of the complaints were in fact legitimate. Five of these were not rectified within 15 working days. Thus, the overall compliance rate for rectification of voltage complaints in 2017 was 98.4%. The performance is summarized in table 9.

Table 9 - Correction of Low/High Voltage, 2017

Item	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	TOTAL 2017	TOTAL 2016
No. of voltage complaints received	748	769	1,022	940	3,479	3,671
No. of complaints where visit was necessary	695	748	819	937	3,199	3,012
No. of complaints not responded to within 24 hours	3	0	0	0	3	1
Percentage Breach	0.4	0.0	0.0	0.0	0.09	0.03
Compliance Rate	99.6	100.0	100.0	100.0	99.91	99.97
No. of legitimate voltage complaints	107	170	172	192	641	475
No. of complaints not rectified within 15 working days	4	0	0	1	5	6
Percentage Breach	3.7	0.0	0.0	0.0	1.6	1.3
Compliance Rate	96.3	100.0	100.0	100.0	98.4	98.7

GES 6: Responding to Billing and Payment Queries

This standard states that T&TEC must respond to a customer’s billing and payment queries within 15 working days with a substantive response. Failure to do so is considered a breach of the standard.

There was a 26% reduction in the number of billing and payment queries received in 2017. Of the 16,610 queries received, all were responded to within the specified time frame. Thus full compliance was maintained in all four quarters of 2017, as seen in table 10.

Table 10 - Responding to Billing and Payment Queries, 2017

Item	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	TOTAL 2017	TOTAL 2016
Number of billing and payment queries	5,859	3,799	4,214	2,738	16,610	22,566
Number not responded to within 15 working days	0	0	0	0	0	0
Percentage Breach (%)	0.0	0.0	0.0	0.0	0.0	0.0
Compliance Rate (%)	100.0	100.0	100.0	100.0	100.0	100.0

GES 7: New Connection to Supply

This standard seeks to focus on the delays in completing the new connections after all necessary paperwork is completed. It states that T&TEC must complete a new connection to supply within 3 working days after submission of all payments and documentation or by a mutually agreed upon date.

There were 12,629 requests for new connections in 2017. Of these, thirteen were not made within the specified time. This resulted in an annual compliance rate of 99.9% (See table 11).

Table 11 - Connection to Supply, 2017

Item	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	TOTAL 2017	TOTAL 2016
No. of connection requests	2,965	3,154	3,096	3,414	12,629	12,775
No. of connections not made within 3 working days or by the specified date	0	5	3	5	13	14
Percentage Breach (%)	0.0	0.2	0.1	0.1	0.1	0.1
Compliance Rate (%)	100.0	99.9	99.9	99.9	99.9	99.9

GES 8: Payments owed under Guaranteed Standards

The Guaranteed Standards Scheme, as described in this section, not only sets prescribed levels of service, but also sets penalties for failure to meet these levels. This standard requires that compensatory payment be made to the customer's account within 30 working days for non-residential customers and 60 days for residential customers, after the claim has been accepted by

T&TEC. The standard requires T&TEC to pay \$50 to any customer whose account is not credited within the specified timeframe.

In respect of GES 1 customers must notify the utility that there was a breach and make a claim for the compensatory payment. However, for standards, GES 2 to GES 7, T&TEC's systems alert it to breaches that have occurred, and they are required to automatically process and credit payments to customers' accounts. The information on breaches of GES 8 is presented in table 12.

There were 16,576 breaches occurring under GES 1. Out of these 17 claims were made. Exemptions were requested and granted for 12 of these customers under *Force Majeure* conditions due to Tropical Storm Bret and flooding that occurred due to other bad weather systems. Five customers were paid within the specified time frame. There were 51 breaches from residential customers and five from non-residential customers occurring across GES 2 to GES 7. Of these, five were not paid within the specified time frame, making them eligible for compensation under GES 8. None of these customers were compensated, resulting in a compliance rate of 0.0%. While T&TEC has generally improved in compensating customers, the lack of a standardised method for tracking these lagged payments contributes to continued poor performance under this standard. This is an area that is being addressed by T&TEC.

Table 12 - Payments owed under Guaranteed Standards, 2017

Item	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	TOTAL 2017	TOTAL 2016
Number of Residential claims not paid within 60 working days	0	0	0	5	5	66
Number of Residential claims further compensated for late or non-payment	0	0	0	0	0	1
Percentage Breach (%)	0.0	0.0	0.0	100.0	100.0	98.5
Compliance Rate (%)	100.0	100.0	100.0	0.0	0.0	1.5
Number of Non-Residential claims not paid within 30 working days	0	0	0	0	0	0
Number of Non-Residential claims further compensated for late or non-payment	0	NMI	NMI	0	0	NMI
Percentage Breach (%)	0.0	N/A	N/A	0.0	0.0	N/A
Compliance Rate (%)	100.0	N/A	N/A	100.0	100.0	N/A

NMI – No Measurable Instance

N/A – Not Applicable

SECTION 3 COMPENSATORY PAYMENTS

The QSS for the Electricity Transmission and Distribution Sector is a guaranteed standards scheme that imposes a penalty on the service provider when the specified standards are not met. The level of the compensatory payment is intended to incentivize T&TEC without being unduly punitive. The payment is automatic for all guaranteed standards, except GES 1. Customers are required to submit a claim for this standard, as T&TEC is currently unable to identify individual customers affected by breaches⁴.

In assessing the effectiveness of the guaranteed standards scheme, the number of breaches must be determined, as well as the payments due for these breaches. There were 16,632 breaches⁵ occurring across standards GES 1 to GES 8 that were eligible for compensatory payment. The total amount of compensatory payment due was calculated based on the amount specified by the standard. In cases where the quantum of the payment differed for the two customer categories, but the applicable category not distinguishable, the lesser value was used in the computation. Based on the number of breaches, the total payment should have been at least \$998,924. A breakdown of the breaches and penalty payments is presented in table 13.

Table 13 - Breaches and Minimum Payments Due under the Guaranteed Standards, 2017

Standard	Number of Breaches	Penalty Payment (\$)	Minimum Payment Due (\$)
GES 1	16,576	60	994,560
GES 2	7	50	350
GES 3	23	118	2,714
GES 4	0	50	0
GES 5	8	50	400
GES 6	0	50	0
GES 7	13	50	650
GES 8	5	50	250
TOTAL	16,632		998,924

⁴ See footnote 2.

⁵ Exemptions were granted for twelve breaches under *Force Majeure* conditions.

T&TEC applied for and was granted exemptions on 12 breaches due to *Force Majeure* situations created by Tropical Storm Bret and other weather systems by the RIC. Compensatory payments were made to 51 customers, totalling \$4,164. This information is presented in table 14.

Table 14 - Breaches, Claims and Payments under the Guaranteed Standards, 2017

Standard	Total Number of Breaches	Total Number of Claims Submitted*/Processed	Total Payments made (\$)
GES 1	16,576	17*/5	300
GES 2	7	7	350
GES 3	23	23	2,714
GES 4	0	0	0
GES 5	8	8	400
GES 6	0	0	0
GES 7	13	8	400
GES 8	5	0	0
Totals	16,632	51	4,164

*Claims under GES 1 must be submitted by customer before they can be processed, while claims under GES2 –GES 8 are generated automatically.

With respect to the automatic compensation, T&TEC paid \$3,864 (89%) of the \$4,364 due. This is an improvement on the 48% that was paid in 2016. It should be noted that automatic compensation means that the customer does not have to apply for the payment. However, the payment system is not automated. Hence there is a procedure to be followed for these payments to be processed. While T&TEC has shown improvement in this area, there is still room for improvement in the systems involved in processing these compensatory payments.

SECTION 4 PERFORMANCE REVIEW: OVERALL STANDARDS FOR 2017

4.1 Overall Standards

Overall standards are those which cover areas of service where it is usually not appropriate or feasible to give individual guarantees, but where the expectation is that the utility will provide pre-determined minimum levels of service. These standards generally relate to the reliability of service affecting a group of customers. There are seven such standards in place for T&TEC.

OES 1: Frequency of Meter Reading.

This standard aims to have all meters read when scheduled. The performance measures are as follows:

- 90% of all residential and commercial meters be read when scheduled, and
- 90% of all industrial meters be read every month.

As at the end of 2017, there were 475,655 residential and commercial meters installed. These meters were scheduled to be read six times per year. T&TEC was able to complete 98% of the 2,814,222 scheduled readings for residential and commercial meters as shown in table 15. This is in full compliance with the performance measure of 90% of the meters being read as scheduled.

Table 15 - Frequency of Meter Reading, Residential and Commercial, 2017

Item	1 st Quarter	2nd Quarter	3rd Quarter	4th Quarter	TOTAL 2017	TOTAL 2016
No. of residential and commercial meters installed at end of period	468,618	470,680	472,912	475,655	475,655	466,632
No. of scheduled readings for residential and commercial meters	708,229	694,138	715,033	696,822	2,814,222	2,790,294
No. of residential and commercial meters readings completed according to schedule	693,999	679,473	699,952	676,671	2,750,095	2,725,460
Percentage of residential and commercial meters read according to schedule	98 %	98%	98%	97%	98%	98%
Percentage breach (%)	0.0	0.0	0.0	0.0	0.0	0.0
Compliance Rate (%)	100.0	100.0	100.0	100.0	100.0	100.0

There continues to be a marginal annual increase in the number of industrial meters installed, bringing the number to 3,932 at the end of 2017 (See table 16). T&TEC performance under this standard resulted in 100% compliance for 2017.

Table 16 - Frequency of Meter Reading, Industrial, 2017

Item	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	TOTAL 2017	TOTAL 2016
No of industrial meters at end of period	3,867	3,878	3,904	3,932	3,932	3,832
No. of scheduled readings for industrial meters	11,554	11,627	11,678	11,773	46,632	45,466
No. of actual readings for industrial meters	10,618	11,512	11,629	11,691	45,450	41,717
Percentage of industrial meter readings	92%	99%	99%	99%	97%	92%
Percentage breach (%)	0.0	0.0	0.0	0.0	0.0	0.0
Compliance Rate (%)	100.0	100.0	100.0	100.0	100.0	100.0

OES 2: Billing Punctuality.

T&TEC’s customers are billed by cycles in each of its five Distribution Areas. Bills are mailed to the customers in the respective cycles after the meters have been read or estimated according to the schedule. This standard seeks to ensure timely billing and requires that 98% of all bills be mailed to customers within ten working days after meter reading or estimation.

T&TEC managed to mail 100% of the bills within the stipulated time frame only during the first two quarters. During the third quarter, T&TEC encountered some challenges with the envelopes used to mail the bills, which hampered the efficiency of inserting the bills into the envelopes. This led to a decline in performance over the next two quarters, resulting in an annual compliance rate of 94.4% (See table 17). T&TEC has since taken measures to correct the issues.

Table 17 - Billing Punctuality, 2017

Item	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	TOTAL 2017	TOTAL 2016
No. of meters read and estimated	704,617	690,985	711,581	688,362	2,795,545	2,753,634
No. of bills not mailed within 10 working days	0	0	59,256	150,218	209,474	320,215
No. of bills mailed within 10 working days	704,617	690,985	652,325	538,144	2,586,071	2,433,419
Percentage of bills mailed within 10 working days (%)	100%	100%	92%	78%	93%	88%
Percentage breach (%)	0.0	0.0	6.5	20.2	5.6	9.8
Compliance Rate (%)	100.0	100.0	93.5	79.8	94.4	90.2

OES 3: Responding to Meter Problems

Overall Standard, OES 3 emphasizes that properly functioning meters are important for accurately registering a customer's consumption. This standard requires that T&TEC responds to customers' meter problems within 10 working days 95% of the time, either by visit or with a substantive response.

There were 1,110 reports of meter problems received in 2017 as shown in table 18. Eighty -nine of these were not responded to within 10 working days, resulting in an average compliance of 96.8% for 2017.

Table 18 - Response to Meter Problems, 2017

Item	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	TOTAL 2017	TOTAL 2016
No. of meter problems reported	268	187	325	330	1,110	1,242
No. of meters problems not responded to within 10 working days	6	4	61	18	89	73
Percentage responded to within 10 working days (%)	98%	98%	81%	95%	92%	94%
Percentage breach (%)	0.0	0.0	14.5	0.5	3.2	0.9
Compliance Rate (%)	100.0	100.0	85.5	99.5	96.8	99.1

OES 4: Prior Notice of Planned Outages.

T&TEC routinely performs maintenance or repair work on the transmission and distribution system, which may involve the interruption of supply. This standard requires T&TEC to give at least three days advance notice of planned outages to customers 100% of the time as a courtesy for the inconveniences that might arise.

There were 1,192 planned outages for the year. Of this figure, 108 were planned outages for which three days advance notice was not given. T&TEC's average compliance rate decreased from 92.1% in 2016 to 90.9% in 2017 (See table 19). However, there was only one occasion when the duration of the planned outages exceeded the scheduled time.

Table 19 - Notice of Planned Outages, 2017

Item	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	TOTAL 2017	TOTAL 2016
No. of planned outages	272	269	329	322	1,192	1,084
No. of planned outages for which 3 days advance notice was not given	83	21	4	0	108	86
Percentage Breach (%)	30.5	7.8	1.2	0.0	9.1	7.9
Compliance Rate (%)	69.5	92.2	98.8	100.0	90.9	92.1
No. of occasions the duration of planned outage exceeded specified time	0	1	0	0	1	7

OES 5: Street Lights Maintenance

OES 5 requires T&TEC to repair 100% of failed streetlights (except highway lights) under its control, within seven working days after receiving notification. T&TEC is also required to establish a monthly schedule to monitor highway lighting and must repair 100% of failed highway lighting within fourteen days after surveyed or reported failure.

The number of failed street lights reported doubled in 2017 from what was reported in 2016. Of the 44,831 reports of failed street lights received, T&TEC was able to repair 21.3% of them within the specified time frame (See table 20). T&TEC reported that there are a large number of installed

lights made from poor quality material, resulting in a high failure rate, which has adversely affected T&TEC’s ability to repair them. OES 5 continues to be the standard with the worst performance, far below acceptable/desirable level.

Table 20 - Street Lights Maintenance, 2017

Item	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	TOTAL 2017	TOTAL 2016
No. of failed street lights reported	10,993	9,599	9,019	15,220	44,831	22,031
No. of failed street lights not repaired within 7 working days	6,092	7,798	9,271	12,102	35,263	15,444
Percentage breach (%)	55.4	81.2	81.1	79.5	78.7	70.1
Compliance Rate (%)	44.6	29.3	18.9	20.5	21.3	29.9

The number of reported highway light failures increased by 49% in 2017. Of the 1,402 reports received, T&TEC was not able to repair 603 within 14 working days. The annual compliance rate for repairs to highway lights declined from 89.6% in 2016 to 57.0% in 2017 (See table 21).

Table 21 - Highway Lights Maintenance, 2017

Item	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	TOTAL 2017	TOTAL 2016
No. of failed highway lights reported	611	296	202	293	1,402	942
No. of failed highway lights not repaired within 14 working days	554	49	0	0	603	98
Percentage breach (%)	20.2	16.6	0.0	0.0	43.0	10.4
Compliance Rate (%)	79.8	83.4	100.0	100.0	57.0	89.6

OES 6: Response to Customer’s written Complaints/Requests

This standard is intended to improve the service provider’s response to customer’s written complaints/requests. Under OES 6, T&TEC is required to:

- (a) Respond to written complaints within 10 working days, and
- (b) Communicate the final position within 30 working days thereafter.

The breaches for each aspect of this standard are shown in table 22. T&TEC received 209 written complaints/requests during 2017, and was unable to respond to 7 of them within 10 working days. This resulted in an annual compliance rate of 96.7%. With respect to having the final position communicated within 30 working days, T&TEC’s performance showed marginal improvement, with the average compliance rate increasing from 54.1 % in 2016 to 65.6% in 2017.

Table 22 - Response to Customer’s written Complaints/Requests, 2017

Item	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	TOTAL 2017	TOTAL 2016
No. of written complaints/requests received	56	49	56	48	209	318
No. of written complaints/requests not responded to within 10 working days (breach)	3	4	0	0	7	10
Percentage Breach (%)	5.4	8.2	0.0	0.0	3.3	3.8
Compliance Rate (%)	94.6	91.8	100.0	100.0	96.7	96.2
No. of written complaints/requests not communicated to with final position within 30 working days (breach)	24	19	16	13	72	146
Percentage Breach (%)	42.9	38.8	28.6	27.1	34.4	45.9
Compliance Rate (%)	57.1	61.2	71.4	72.9	65.6	54.1

OES 7: Notifying customer of receipt of claim under Guaranteed Standard GES 1

This standard requires T&TEC to notify 100% of customers within ten working days of receipt of a claim under guaranteed standard GES 1. There were 18 claims submitted for breaches of GES 1, and all customers were notified.

Table 23 - Customer Claim Notification, 2017

Item	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	TOTAL 2017	TOTAL 2016
No. of claims made under GES1	2	0	13	3	18	33
No. of claims not acknowledged within 10 working days	0	0	0	0	0	0
Percentage Breach (%)	0.0	0.0	0.0	0.0	0.0	0.0
Compliance Rate (%)	100.0	100.0	100.0	100.0	100.0	100.0

N/A – Not Applicable

SECTION 5 CONCLUSION

The Guaranteed Standards Scheme is one approach used by the RIC to encourage T&TEC to focus on improving the quality of service through service standards, and is broadly comparable to similar schemes used in other jurisdictions. The service standards are divided into guaranteed and overall standards.

5.1 Summary of Performance - Guaranteed Standards

Guaranteed Standards set service levels that must be met in providing service to each individual customer. Failure to meet guaranteed standards requires a T&TEC to make a compensatory payment to the affected customer. T&TEC's performance was maintained at previous levels as evidenced by the compliance rates. However, there was a significant increase in the number of breaches from 5,726 in 2016 to 16,576 in 2017 under GES 1. This was due to the severe inclement weather experienced during the rainy season, starting with Tropical Storm Bret in June.

There were 17 claims under GES 1, of which five were paid, and T&TEC obtained exemption for 12 due to *Force Majeure* conditions. There were 56 breaches under the remaining standards, GES 2 to GES 8, which were eligible for automatic compensation. T&TEC made payments to 46 customers for these. The breaches and compliance rates are shown in table 24.

Table 24 - Summary of Compliance – Guaranteed Standards, 2017

Standard		Total Number of Breaches		Compliance Rates	
		2017	2016	2017	2016
GES 1 – Response and Restoration Times of Supply after unplanned outages on the distribution system		16,576	5,726	99.08	99.64
GES 2 – Billing Punctuality	Residential	7	5	99.90	99.80
	Non- residential	0	3	100.0	98.10
GES 3 – Reconnection after Payment of overdue amount/ agreement		23	12	99.91	99.95
GES 4 – Making and Keeping Appointments		0	0	100.0	100.0
GES 5 – Investigation of Voltage Complaints	Response	3	4	99.91	99.97
	Rectification	5	7	98.74	98.7
GES 6 – Responding to billing and payment queries		0	0	100.0	100.0
GES7- New connection of supply		13	14	99.9	99.9
GES8 – Payments owed under guaranteed standards	Residential	5	1	0.0	0.0
	Non- residential	0	N/A	100.0	N/A

N/A – Not Applicable

5.2 Summary of Performance - Overall Standards

Generally, T&TEC’s performance under the overall standards was varied. As occurred in previous years, performance under OES 1 (Frequency of Meter Reading) and OES 7 (Notifying Customers of Receipt of Claim under Guaranteed Standard GES 1) achieved full compliance. There was marginal improvement in the performance under OES2 (Billing Punctuality) and OES 6 (Response to Customer Queries/Requests (written)). However, there was a decline in performance under OES 3 (Responding to Meter Problems), OES 4 (Prior Notice of Unplanned Outages) and OES 5 (Street Lights Maintenance).

A summary of compliance rates for 2017 under the overall standards is presented in table 25.

Table 25 - Summary of Compliance – Overall Standards, 2017

Standard		Compliance Rates %	
		TOTAL 2017	TOTAL 2016
OES 1 – Frequency of Meter Reading	Industrial	100.0	100.0
	Residential and Commercial	100.0	100.0
OES 2 – Billing Punctuality		94.4	90.2
OES 3 – Responding to meter problems		96.8	99.1
OES 4 – Prior Notice Of Planned Outages		90.9	92.1
OES 5 – Street Lights Maintenance	Street Lights	21.3	29.9
	Highway Lights	57.0	89.6
OES 6 – Response to Customer Queries/ Requests (written)	Initial Response	96.7	96.2
	Final Position	65.6	54.1
OES 7 – Notifying Customer of Receipt of Claim under Guaranteed Standard GES1		100.0	100.0

N/A – Not Applicable

The Guaranteed Standards Scheme is not the only mechanism the RIC utilises to assess T&TEC’s performance and ability to consistently deliver a reasonable quality of service. The RIC also monitors key performance indicators and the complaints that are received from dissatisfied customers. This holistic approach to monitoring has identified some areas that require improvement and the RIC has mobilised certain activities to address these areas.

As a first, the RIC has revised the Quality of Service Standards for the Electricity Transmission and Distribution Sector. This is currently awaiting publication in the Gazette. Based on the volume of complaints that the RIC handled arising out of issues with the way T&TEC has managed GES 7, it is the standard that underwent the most significant changes. It is hoped that the revised standard would be more effective at ensuring that customers receive a better level of service.

The RIC and T&TEC also engaged in a joint process mapping exercise with the aim being to improve and standardize the collection and reporting of regulatory data. Over the years there have

been repeated inconsistencies in the data reported based on the nature of the report. It is hoped that this exercise will improve the accuracy of data reported, so that the RIC can effectively monitor performance and compliance.

APPENDIX 1

Table A1 presents a description of the Guaranteed Standards, the required performance units, and the compensatory payment levels for each standard.

Table A1 - Guaranteed Standards

Code	Service Description	Performance Measure	Required Performance Units	Payments per Customers *
GES1	Restoration of supply after unplanned outage on the distribution system.	Time for restoration of supply to affected customers	Within 10 hours	\$60 (residential) \$600 (non-residential) For each further 12 hr period \$60 (residential) \$600 (non-residential)
GES2	Billing Punctuality .Time for first bill to be mailed after service connection.	Time for first bill to be mailed after service connection: (a) Residential (b) Non-Residential	60 days 30 days	\$50 for both residential and non-residential
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
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
GES5	Investigation of Voltage Complaints	Time to visit, correct problem and notify affected customers	Within 24 hours, Correct within 15 working days.	\$50 (residential) \$600 (non-residential)
GES6	Responding to billing and payment queries	Provide a substantive reply	Within 15 working days	\$50 for both residential and non-residential
GES7	New Connection of supply	Service drop and meter to be installed	Within 3 working days	\$50 for both residential and non-residential
GES8	Payments owed under guaranteed standards	Time to credit compensatory payment.	Within 30 working days for non-residential and 60 days for residential.	\$50 for both residential and non-residential

Table A2 presents a description of the Overall Standards and the required performance units for each standard.

Table A2 - Overall Standards

Code	Description	Required Performance Units
OES1	Frequency of meter reading	<ul style="list-style-type: none"> a. 90% of industrial meters should be read every month b. 90% of residential and commercial meters read according to schedule
OES2	Billing punctuality	98% of all bills to be mailed within ten (10) working days after meter reading or estimation
OES3	Responding to meter problems	Visit or substantive reply within 10 working days 95% of the time
OES4	Prior Notice of planned outages	At least 3 days advance notice of planned outages 100% of the time
OES5	Street lights maintenance.	<p>100% of failed street lights with the exception of highway lighting repaired within 7 working days.</p> <p>100% of failed highway lighting repaired within 14 working days.</p>
OES6	Response to customer queries/requests (written)	Substantive response within 10 working days and communicating final position within 30 working days.
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.