PUBLIC UTILITIES COMMISSION

In the matter of the Public Utilities Commission reviewing the Guyana Power and Light Inc. (GPL) Operating Standards and Performance Targets for 2013.

ORDER NO 2/ 2014

Representatives of the Public Utilities Commission:

Justice Prem Persaud, CCH	-	Chairman
Mr. Badrie Persaud	-	Commissioner
Mr. Maurice Solomon	-	Commissioner
Mr. Vidiahar Persaud	-	Secretary/Legal Officer
Mr. Moorsalene Sankar	-	Financial Analyst 1

Representatives of the Guyana Power and Light Inc.:

Mr. Bharat Dindyal	-	Chief Executive Officer
Mr. Ash Deonarine	-	Deputy Chief Executive Officer
Mr. Renford Homer	-	Director of Commercial Services
Mr. Colin Welch	-	Deputy Chief Executive Officer
Mr. Elwyn Marshall	-	Divisional Director of Operations
Mr. Balgobin Persaud	-	Human Resource Director
Mr. Loris Nathoo	-	Chief Financial Officer

Representatives of the Consumers' Associations:

Mr. Patrick Dial, A.A. JP	-	President- Guyana Consumers Assc.

The Licence granted to Guyana Power and Light Inc. (GPL) was amended on October 4th, 2010. The amendment provides for GPL to submit annually, with effect from calendar year 2011, and for all subsequent years thereafter, its Operating Standards and Performance Targets (OSPT) on a one and five year basis, and which will be included in its Development and Expansion Programme which must be submitted for the approval of the appropriate Minister.

The Operating Standards and Performance Targets which are included in the approved Development and Expansion Programme constitute the standards and quality of service that GPL is required to provide in accordance with section 25 (2) of the Public Utilities Commission Act No. 10 of 1999. It is binding on GPL, and enforceable by the Commission as provided for in paragraph 16 (b) (iv) of the GPL's amended Licence. These standards and targets are eight in number and are as follows:

1. Customer Interruptions
2. Voltage Regulation
3. Meter Reading
4. Issuing of Bills
5. Accounts Payable
6. Accounts Receivable
7. System Losses and
8. Average Availability

Provision has been made that by March 30th in each calendar year commencing from the year 2012, the PUC shall review GPL's performance for the previous calendar year with respect to the OSPT in effect for such calendar year and shall determine whether GPL has failed to achieve and /or reach the targets, and if there are failures in any of the targets what was the impact of such failures on the consumer and company.

If the Commission finds that the Licencee has failed to meet its Operating Standards and/or Performance Targets, it may impose monetary penalties on the company in an amount not to exceed

25% of the total value of the dividends payable to the company's shareholder(s) for such calendar year in accordance with the Licencee and applicable law.

In determining the amount of any monetary penalty to be imposed within the parameters set forth in the amended Licence, the Commission shall take into account the extent to which the company has failed to meet its Operating Standards or Performance Targets during the previous calendar year and the impact of any such failure(s) upon the Licencees' Customers.

On the 28th of March 2014 the Commission held a public hearing at Duke Lodge, Kingston, Georgetown. The object of the hearing was to afford GPL an opportunity to inform the public whether the operating standards for 2013 were achieved and if not, why.

If the Commission, in reviewing the standards finds that GPL failed to achieve them, it will take into consideration the reasons that contributed to the failures and the impact, if any, on the consumers and on the company.

GPL's Performances and Explanations for Failing to Achieve a Number of Operating Standards:

1. Customer Interruptions:

(a) System Average Interruption Frequency Index: (SAIFI)

The intent of this standard is to limit the average number of outages a consumer would have received during the year to no more than 140.

The annual average number of outages a consumer experienced in 2013 was 180. The standard was not met. The explanations offered by GPL for this failure are detailed below.

GPL had anticipated an increase in the number of outages for 2013. In 2012 the standard set the number of outages at 120 and in 2013 at 140. The reason for the increase in outages over the previous year was because the company was engaged in significant upgrades to its transmission system that necessitated planned outages so as to facilitate the installations of its substations.

Another contributory factor was feeder trips. Where the protective device detects a fault in the transmission network it would trip the system. The standard practice is to wait for ten minutes and if there is no report of a fault, the system would be re-energized. The company reported that these transient trips accounted for 65% of all trips.

Vegetation growth was another cause for outages. The company acknowledged that vegetation control was the responsibility of the company. The company reported success in the management of vegetation on its transmission lines but were not as vigilant as they should have been with respect to growth on distribution circuits and secondary lines.

Generation shortfalls in the Berbice area and the negatives that attend it further contributed to the target not being met.

(b) System Average Interruption Duration Index (SAIDI)

The intent of this standard is to limit the average duration of outages a consumer would receive during the year to no more than 160 hours. The average duration a consumer experienced was 167.8 hours. The target was not met.

The company in its report said it had anticipated an increase in the SAIDI index as a result of upgrades to its transmission system and reported that 42 % of the disruptions were attributable to the transmission upgrades.

2. **Voltage Regulations:**

Part 1 of the standard states:

"GPL shall seek to maintain in stable conditions voltages, of ± 5% of the nominal voltage and ± 10% following a system disturbance".
GPL has maintained that it would be difficult to monitor the voltage supplied to each customer and had previously suggested that as an alternative the company would report on the number of voltage complaints and the time taken to have them resolved. This standard was not measured.

Part 2 of the standard states:

"GPL shall complete 100% of customer voltage complaints due to network reconfigurations, vegetation upgrade of lines, additional transformer, etc. in no more than 55 days". GPL has reported that all voltage complaints were regularized within the specified time frame. This segment of the standard was met.

3. **<u>Meter Reading:</u>**

The purpose of this standard is aimed at reducing the number of annual estimated billings based on actual meter readings. For 2013 GPL was required to read 97% of maximum demand consumers and 90% of non-maximum demand consumers.

The standard was not achieved. With respect to the non-maximum demand consumers GPL produced 87.68% of the bills based on actual readings; and with respect to maximum demand bills, 85.25 % of the bill were produced based on actual meter readings.

GPL's explanations in not meeting the operating standard with respect to non-maximum demand consumers were:

- Failure to have access to the premises.
- Changes in personal lifestyle and suspicion by consumers that criminals may be posing as meter readers to gain access to the building.
- Defective meters and inclement weather

GPL's explanations in not meeting the operating standard with respect to its maximum demand consumers were:

- The company had aggressive collection drives during the year resulting in the disconnection of a number of maximum demand consumers. These consumers were not read during the period they were disconnected from the grid. This resulted in a decrease in the number of maximum demand consumers read. The company's estimate is that disconnections of this nature made up 52% of the un-read meters in the period.
- The hand-held remote meter reader that records consumption from the ITRON meters malfunctions from time to time resulting in a delay in the reading of the meters. The company's estimate is that the device's failure contributed to 18% of the un-read meters in the period.

4. **<u>Issuing of Bills:</u>**

GPL is required to issue maximum demand bills within 7 (seven) days of the reading of the customer's meter and within 10 (ten) days of the reading of non-maximum demand meters. Both standards were achieved.

GPL had on average issued maximum demand bills within the 6 days and non-maximum bills within 8 days of meter reading.

In response to a question from the Commission when a bill is deemed issued, GPL said that the company regards a bill as issued when it leaves the company's office for the post office.

5. **<u>Accounts Payable:</u>**

This standard commits GPL to settle in full with its creditors within 30 days.

GPL reported that it took on average 34 (thirty - four) days to settle with its creditors. The standard was therefore not met.

The company explained that it takes on average 60 days for overseas suppliers to complete delivery of an order. The company posited that this time period skewed the credit period resulting in the company not achieving the standard.

6. **Accounts Receivable:**

This standard commits GPL to a 45 days cash collection cycle.

GPL reported that its average cash collection cycle was 37 days. This standard was therefore met.

7. **System Losses:**

This standard sets system losses at 28.1% of dispatched power for 2013. In 2012 the standard was 28.65%. In 2012 GPL's reported system losses were 31.7%. GPL considered a system loss reduction of 3.6% for 2013 as unachievable. (31.7%-28.1%) Instead the company set an in-house target of 1.6%. This, the Commission believes, was done after GPL would have considered the available resources it had at its disposal.

Actual losses at the end of 2013 were reported at approximately 31%. The standard was therefore not met. Overall GPL achieved a reduction of .8 of one percent in system losses for 2013. The in-house target set by the company was also not achieved.

GPL explained that:

- In spite of the company's best efforts, reduction in consumer theft remained elusive. The company reported that for 2013 it removed 7,239 illegal connections. Investigations led to 489 tampering charges. To date there were 39 convictions arising from these charges.
- Significant investments which the company lacks would be required to reduce technical losses.
- In 2013 a pilot project funded by the IDB was launched. The project involved the installation of 1,867 Advance Metering Infrastructure (AMI) meters in a designated area. This meter is considered tamper proof. The object of the exercise is to record the usage for the area with the AMI and compare it to the period when electro mechanical and prepaid meters were used. If the project yields positive results, the company will consider changing over to AMI.

8. **Average Availability:**

For 2013 GPL was required to achieve an average availability of 75%. The company reported an average availability achievement of 70%. The standard was not met.

The company reported that during the year the following power stations experienced significant down time which at the time the standard was set was not anticipated.

The power stations in question were:

- The Number 4 Mirrlees station at Canfield which had been out of service in February 2013 due to a defective main bearing journal. The repairs were done by external contractors. The station was out of order for approximately three months.
- The number 6 GM at Garden of Eden which came into service during the second quarter. This was as a result of a delay in the arrival of parts ordered from Japan to effect repairs to the station.
- Problems with the No. 5 GM station at Onverwagt as a result of a failed turbo charger. The station was non-operational for about six to seven months.

PUC's Review of Standards not Achieved:

1. **Customer Interruption:**

The Commission accepts the reasons attributable to the increase in frequency in power outages. However the Commission finds no valid reason why the company should not have been more circumspect with the management of its vegetation control. This would have offered the consumers a measure of respite as they would have experienced fewer outages. Although the SAIFI index was 28% above the standard the SAIDI index was just 2% above the standard. This suggests that on average power outages were of shorter duration that was originally planned. The inconveniences suffered by consumers as a result of an increase frequency in outages were countered by shorter duration of outages.

2. Voltage Regulation:

Because of the failure of GPL to ascertain the quality of voltage supplied to consumers during 2013, the PUC would be unable to make any assessment on the impact, if any that irregular voltage supplied to consumers may have had on them. Empirical evidence suggests however, that voltage supplied varies from the standard especially during peak periods and often results in damages to consumers' equipment.

While the PUC recognises GPL's difficulties in measuring this standard there needs to be selective random testing that would allow for a determination of the quality of voltage supplied to consumers.

3. Meter Reading:

(a) Non Maximum Demand Consumers:

In reviewing the standard set for the meter reading of non-maximum demand consumers the Commission found the company's performance to be satisfactory, and noted the reasons for the company not attaining the standard as acceptable. The Commission is of the opinion that the impact, if any, on consumers and on the company, as a result of not attaining the operating standard to be negligible.

Maximum Demand Consumers:

The company's failure to meet the standard and the reasons given for the failure were noted. When a meter becomes non-operational it should be delinked from the number of active meters for the purpose of calculating the standard. In the specific case of disconnected meters not read the Commission believes it should not have been included in the calculation of the standard.

This is the second successive year that the ITRON hand held remote meter reader malfunctioned, contributing to one of the reasons why the standard was not met. The company should ensure that this problem is speedily resolved. Our review suggests that the impact, if any, on the consumers and on the company was negligible.

5. Accounts Payable:

The reason given for the failure to meet the standard was noted. The Commission would suggest that the company review its accounting procedures to ascertain whether a changed policy may not yield the desired result.

7. System Losses:

GPL has not reduced system losses to the level set in the operating standard for 2013. It should be noted that the standard is set based on the assumption that the previous year's target was met. If the target was not met in the previous year as was the case in 2012, GPL would be required in 2013 to double up; that is to achieve the targeted reduction in the current year and to make good the default in the previous year. Consistent failures in not meeting the standard will widen the gap between the standard and the actual in the ensuing years. If the standards were met in previous years GPL would have been required to reduce system losses from 28.65%to 28.1 % or by .55of one percent. On a positive note GPL reported a system loss of .8 of one percent.

The Commission notes that system losses cost the company over seven billion dollars in 2013 and this cost looks set to continue into 2014 and beyond. The losses are collectively borne by the company and the Government. Rather than financing the losses as is the common practice it makes sense to identify components of the system losses and make the investment in reducing either singularly or in total each of the loss components. At some point this would have to be done and the sooner a start is made the better.

8. **Average Availability:**

The Commission notes that the failure to achieve this standard may have been a contributory factor in the company not meeting the customer interruption standards. It may also indicate that the company was not as forthcoming as it should have been with respect to its planned maintenance schedule.

General:

The Commission recognizes that the operating standards are set within the framework of the company's existing infrastructure and cash flow limitations. However some of the standards fall far short of what generally constitute an efficient utility. There remains much work to be done to incrementally improve the quality of service to consumers.

Decision:

The Commission will not seek to impose a fine on the company's 2013 OSPT's performance. However, the company should be warned that unless there are positive steps going forward to reduce system losses the Commission would have no alternative but to censure the company.

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Prem Persaud C.C.H. - Chairman

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Badrie Persaud - Commissioner

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Maurice Solomon - Commissioner

Dated this 22nd day of April, 2014.