GOAL-09 MONITORING REPORT
A Comparison of Allowed Charges

PUBLIC UTILITIES COMMISSION OF SRI LANKA

October 2016

This report contains a comparison of the approved allowed charges of 2013 and 2015 in order to monitor the achievement of Goal 09 – Reducing charges levies by service provider on services in 2013 by 10% in real terms by year 2020.

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BACKGROUND

The Public Utilities Commission of Sri Lanka (the Commission) is the economic, technical and safety regulator of the electricity industry in Sri Lanka. The Commission is entrusted with the function to collect and record information relating to the electricity industry of the country.

The long term goals for electricity sector of Sri Lanka published by the Commission consist of a set of goals, one of which being "Charges levied by service provider in 2013 is reduced by 10% in real terms by 2020", (goal number 9).

The Commission started the function of approving the allowed charges of Licensees since 2012, and therefore possesses detailed information required to monitor the extent of Goal achievement. The intention of this report is to monitor the extent of Goal achievement as at 2016, by comparing selected charges of 2013 with those of 2016, in real terms. This report also seeks to identify any corrective actions requires to be taken, to ensure the intended target will be achieved by 2020.

INTRODUCTION

The charges compared herein are submitted by licensees and approved by the commission as per the "Cost Reflective Methodology for Tariffs and Charges" that was published by commission in 2010 and has been in effect since then. The list of charges selected for comparison is given below.

1. Retail Service Connection – Single phase 30A
2. Bulk Service Connection from Overhead line
3. 100KVA single pole mounted distribution substation
4. Testing of an energy or energy/demand meter
5. Construction cost of a L/V 3phase B/C line per kilometer.

For the purpose of goal monitoring, the selected charges need to be sufficiently indicative of overall price level, and are frequently used so that they are representative of charges paid by the consumers. These charges were selected for comparison as they satisfy the above criteria.

COMPARISON OF CHARGES

Despite varied demographics among four distribution licensees, CEB submits a single filing for all four Distribution divisions. Therefore only two sets of approved allowed charges are available, for CEB and LECO respectively. Changes of each of these charges are compared in real terms, to measure the extent of goal achievement.

Price adjustment for comparison was done with respect to National Consumer Price Index (NCPI) published by Department of Census and statistics as it is considered a more comprehensive indicator of the overall price inflation when compared with Colombo Consumer Price index (CCPI) that had been in use before.

The NCPI for 2016 January published by Department of Census and Statistics is 112.0 (Base: 2013=100). This figure is used to adjust 2016 charges to 2013 terms.

CEB Charges

Service		2013 charge (LKR)	2016 Charge (LKR)	2016 Adjusted	Reduction (%)
Retail Service Connection – Single phase 30A	Fixed	16,000	20,000	17,857	-11.61
	Variable	925	450	400	56.56
Bulk Service Connection	100kVA	1,307,000	1,183,000	1,056,250	19.19
	63kVA	715,000	434,000	387,500	45.80
11kV/LT 100kVA single pole mounted distribution substation		1,450,000	1,162,000	1,037,500	28.45
Testing of an energy or energy/demand meter		800	1,650	1,473	-84.15
Construction cost - L/V 3phase line kilometer (FLY - 7/3.40mm)		1,257,000	1,228,000	1,096,428	12.77

Table 1 - Comparison of CEB charges 2013 - 2016

Comparing the figures, it can be noted that the change of charges are somewhat erratic, which is mainly due to certain changes of charge allocation methodology. A breakdown of fixed charge for single phase 30A service connections reveals that material costs presented in the submission have decreased as a whole, while overhead and labor costs have slightly increased. However the main reason for increase of fixed charge is due to a change of assumptions with respect to percentages of connections with poles and without poles, for each scenario. The decrease of variable cost for service connection can be attributed to the decrease of material price in the submission.

The costs of bulk supplies and distribution substations have decreased in both nominal and real terms. This can be largely attributed to the reduction of material costs. CEB pricelist shows that costs of equipment and material such as transformers, CT's, energy/demand meters, pre-stressed poles, all of which constitute a major part of substation cost, has decreased significantly.

The increase of Meter Testing charge is mainly due to the increase of transport and labor costs both of which have increased from 2013 rates. It is also noted that CEB continues to charge a concessionary charge for meter testing which has been the case since 2013.

Price reduction of Line cost is also due to the decrease of material costs. Cost of both Al conductor and R.C. pole have decreased from their respective figures in 2013.

Given below is a figure depicting the variation of CEB charges for 2013 and 2016, in real terms.

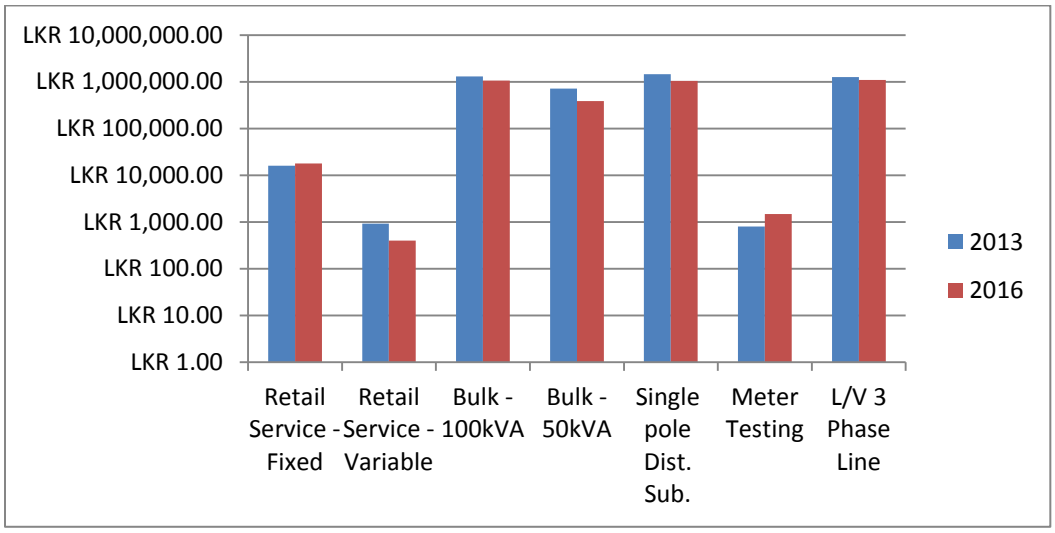

Figure 1 - Variation of CEB Charges 2013 - 2016

LECO Charges

Service		2013 charge (LKR)	2016 Charge (LKR)	2016 Adjusted	Reduction (%)
Retail Service Connection – Single phase 30A	Fixed	*18,970	15,920	14,214	25.07
	Variable	390	440	393	-0.73
Bulk Service Connection	100kVA	1,198,020	676,070	603,634	49.61
	50kVA	1,292,050	676,780	604,268	53.23
11kV/LT 100kVA single pole mounted distribution substation		1,043,810	993,680	887,214	15.00
Testing of an energy or energy/demand meter		1,070	1,430	1,277	-19.33
Construction cost - L/V 3phase line kilometer (50 B/C on RC poles)		1,477,240	1,782,210	1,591,258	-7.72

**2013 fixed charge was defined for 30m distance(Rs.11,170) This figure is derived by adding variable charge for 20meters, to the fixed charge to calculate the charge applicable for a 50m connection in 2013 terms.*

Table 2 - Comparison of LECO Charges 2013 - 2016

Comparison of LECO charges reveals that there is an overall decrease of charges from 2013 figures while it can be noted that except for retail service connection and distribution substation costs, LECO has managed to reduce charges by greater percentage than CEB has managed to. Also it has to be noted that the 25% reduction of Fixed Charge for retail connection though based on fair assumptions, does not reflect real prices. The reason is the LECO charge calculation methodology. LECO methodology calculated fixed charge based on per unit cost of material multiplied by average amount of material used for each service connection in last year. Since average length of service line for LECO new connections typically falls between 25m and 30m, the change of fixed charge threshold from 30m to 50m has not translated to a significant change of the amount of material used. Therefore, comparing the 2013 fixed charge of Rs. 11,170 for 30m, with 2016 adjusted amount makes a more fair comparison. This comparison shows a 27% increase of fixed cost which can be attributed to increase of material, labour and transport costs. Cost breakdown of the fixed charge reveals that material prices have increased significantly while labour and transport costs are also showing a marginal increase. The slight increase of variable cost for service connection can be attributed to the increase of material prices as per the submission.

Charges for bulk service connections have decreases by 50% in both 50kVA and 100kVA connections. In both cases labour costs have increased (nominally) while the material costs have dramatically decreased. Prices of items in relevant material kits show that prices of components has marginally decreased while the cost of transformer has increased. However due to a policy decision LECO has removed the transformer cost from connection charge, which has resulted in huge reduction of overall

connection charge for bulk service connections. The same trend can be noticed for Distribution substations where material cost has decreased while labour cost has increased, which has caused the resultant net reduction of substation cost.

The increase of Meter Testing charge is due to the increase of transport and labor costs both of which have increased from 2013 rates. Other than rates, there had been no change in amount of labour or transport for the job.

Material cost increase and labour cost increase have both contributed to the increased construction cost of distribution line. All material cost except copper earth conductor price, has increased marginally from 2013 figures which has resulted in an overall increase of material cost. The decrease of AL conductor cost has not been translated to a cost reduction because LECO uses ABC for LV lines. In addition, the increase of labour cost and transport cost have also contributed to the cost increase.

Given below is a figure depicting the variation of LECO charges for 2013 and 2016, in real terms.

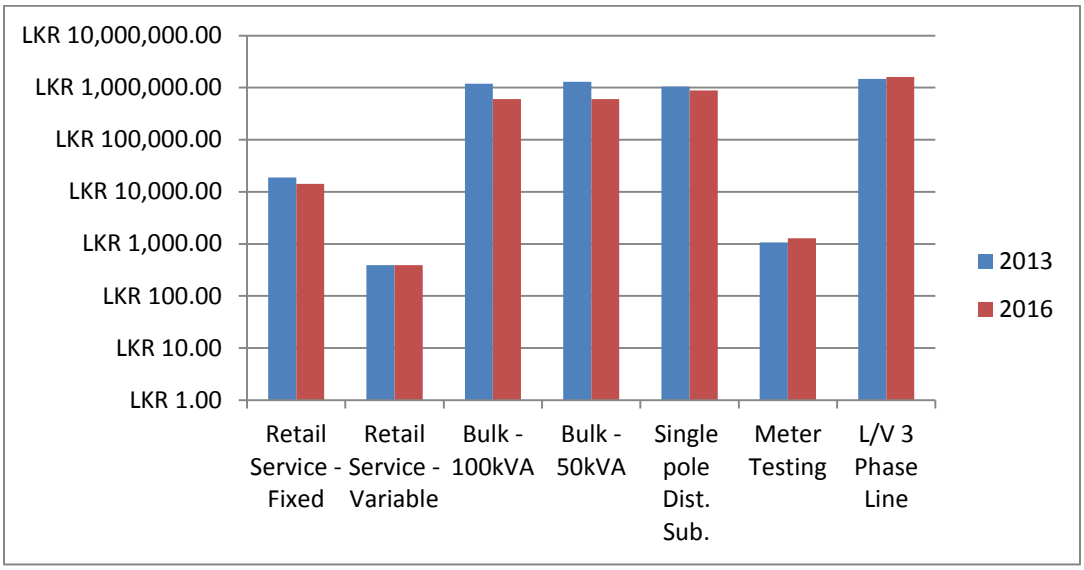

Figure 2 - Variation of LECO Charges 2013 - 2016

CONCLUSIONS

All in all it can be noted that there is a general decrease of charges despite erratic overlook. At the same time it can be noted that there are significant differences between LECO and CEB in terms of charges for the same services. The main reason for this is differences of charge allocation methodologies. In addition to that, it can be noted that there are number of CEB charges that are not cost reflective where they charge concessionary rates for certain services. However lack of cost breakdown makes it difficult to evaluate those charges with respect to Goal 9. (Reducing charges levies by service provider on services in 2013 by 10% in real terms by year 2020)

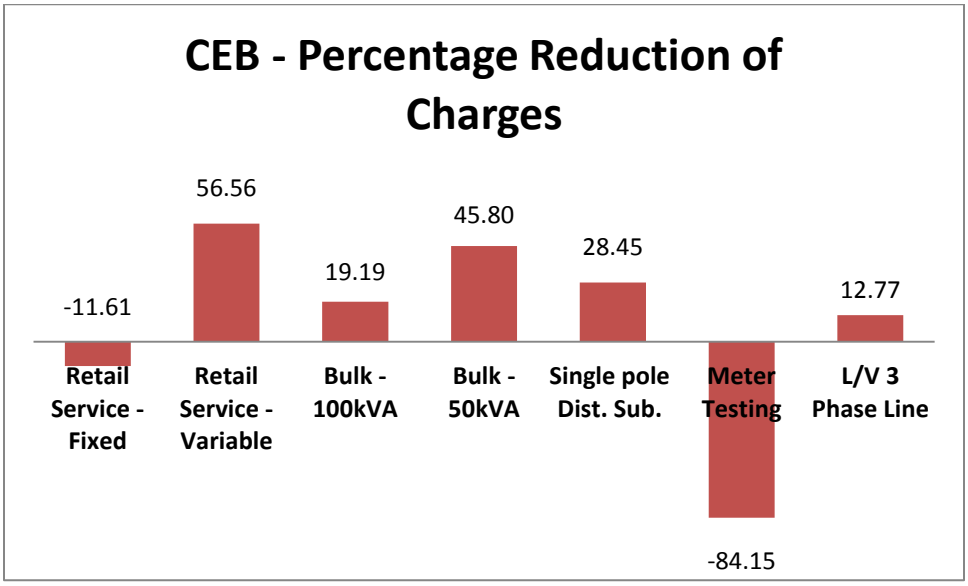

Figure 3 - Percentage reduction of Charges - CEB

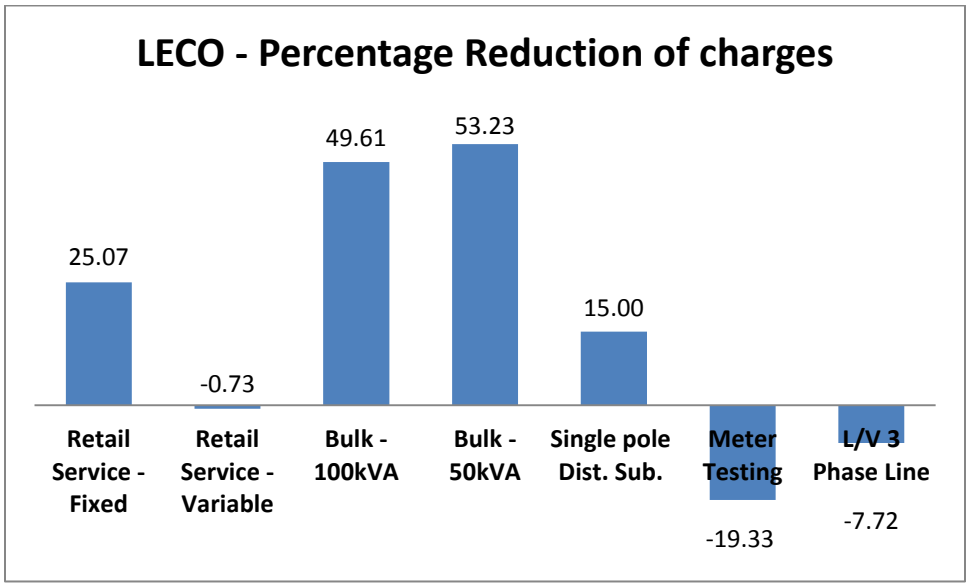

Figure 4 - Percentage Reduction of Charges - LECO

Comparing overall reduction of charges, it can be noted that the variable cost of service connection and the LV line construction cost of CEB has increased while the same charges of LECO shows a marginal decrease. The reasons for this cannot be investigated further as CEB does not provide jobwise cost breakdown. However it can be noted that the composition of labour, transport and material kits used for each job are also different between CEB and LECO. This might have resulted in a variation of final calculated cost. All the other charges between two licensees show the same trend though the magnitude of change is different.

As a whole, charges of LECO are transparent since they recover the cost of a particular job or service by respective charges. However the CEB approach is not clear in this regard. Another notable feature of charges is the huge variation of charges for the same service such as bulk service connection, construction cost of LV 3phase line, etc... Hence proper guidelines are essential to streamline the procedure and introduce a common way for determination of charges.

In view of ensuring Goal achievement by 2020, the commission has introduced changes to allowed charges methodology, and intends to further streamline the process of reviewing allowed charges.