DECISION ON TRANSMISSION AND BULK SUPPLY TARIFFS

Effective from 1st July 2013

DECISION ON BULK SUPPLY TARIFFS- JULY- DECEMBER 2013

In exercising functions vested with the Public Utilities Commission of Sri Lanka ("the Commission") under section 3(d) of the Sri Lanka Electricity Act No 20 of 2009 (the "Act") "to regulate tariffs and other charges levied by licensees and other electricity undertakings, in order to ensure that the most economical and efficient service possible is provided to consumers".

In accordance with Section 30(2)(a) of the Act, the Commission, on 15th July 2010, approved a cost-reflective Methodology for Tariffs ("the Methodology") and subsequently issued the Methodology to the Transmission Licensee (TL) and to each Distribution Licensee (DLs).

In accordance with the methodology, the tariffs levied by the distribution licensee for the transmission and bulk sale of electricity (the transmission and bulk sale tariffs) and tariffs levied by the distribution licensee for the distribution and supply of electricity were approved by the Commission and requested licensees to implement with effect from 1st January 2011, issuing the decision document on electricity tariffs. The transmission and bulk sale tariffs was a forecasted tariffs issued to determine the end use customer tariffs. The forecasted transmission and bulk sale tariffs are calculated and filed once every six months by the transmission license following the procedure defined in the methodology.

The Commission reviewed the transmission and bulk supply tariffs filed by the transmission licensee for the period from July to December 2013, and hereby approved and requested the transmission licensee to implement the bulk supply tariffs effective from 1st of July 2013.

List of Acronyms

DL5

BSOB Bulk Supply and Operations Business

BST Bulk Supply Tariffs
CAPEX Capital Expenditure
CEB Ceylon Electricity Board

DL Distribution Licensee: Ceylon Electricity Board and Lanka

Electricity Company (Pvt) Ltd

DL1 Distribution and Supply Licensee for CEB Distribution

Region 1 holding license number EL/D/09-003

DL2 Distribution and Supply Licensee for CEB Distribution

Region 2 holding license number EL/D/09-004

DL3

Distribution and Supply Licensee for CEB Distribution

Region 3 holding license number EL/D/09-005

DL4 Distribution and Supply Licensee for CEB Distribution

Region 4 holding license number EL/D/09-006

Distribution and Supply Licensee LECO holding license

number EL/D/09-052

FSA Fuel Supply Agreement

CEB GL CEB Generation Licensee holding License number

GWh Giagawatt hour kVA kilovolt ampere

kW kilowatt kWh kilowatt hour

LECO Lanka Electricity Company (Pvt) Ltd.

LKR Sri Lanka Rupee
LV Low Voltage
MV Medium Voltage
MWh Megawatt hour

NCRE Non-Conventional Renewable Energy

O & M Operations & Maintenance
OPEX Operating Expenditure
PPA Power Purchase Agreement
Single Buyer A function of the BSOB
SPPs Small Power Producers

T&D Transmission and Distribution

TL Transmission and Bulk Supply Licensee holding License

number EL/T/09-002

TOU Time of Use WIP Work-in-Progress

1. ALLOWED REVENUE OF THE TRANSMISSION LICENSEE

Consequent to the Tariffs Filing Completed in December 2010, the Decision Document on Electricity Tariffs was issued by the Commission to all licensees and requested to implement with effect from 1st of January 2011. The annual allowed revenue that the Transmission Licensee recovers from Transmission and from Bulk Supply and Operations (BSOB) businesses were determined and requested the transmission licensee to abide by the allowed revenue.

1.1 Adjusted approved variable revenue cap and retail service price cap

Approved revenue caps for Licenses (given Table 1 below) are adjusted from the amounts approved under Sections 2.3 and 3.3 of the Decision on Electricity Tariff 2011, for underutilization of capital expenditure as well as for the annual forecast sales demand variation.

Table 1- Adjusted Approved Variable Revenue Cap

	Variable revenue cap (LKR Million)						
Licensee	2011	2012	2013				
DL 1	5,978	6,332	7,366				
DL 2	6,772	6,629	7,697				
DL 3	3,970	4,000	4,522				
DL 4	3,334	3,167	3,684				
DL 5	2,120	2,159	2,455				
TL	6,895	7,239	8,046				

Retail service price cap was adjusted only for the annual sales variation.

Table 2- Adjusted Approved Retail Service Price Cap For 2013

		BSOB Revenue						
Licensee	DL 1	TL						
2013	496.75	135.15						

2. APPROVED LOSSES FOR THE PERIOD (As per the Decision on Electricity Tariffs – 2011)

Approved network loss target as per Decision on Electricity Tarff 2011 for year 2013 are shown in Table 3 below.

Table 3- Approved Network Loss For 2013

Licensee	DL 1	DL 2	DL 3	DL 4	DL 5	TL
Approved loss	8.6%	11.0%	8.6%	9.6%	5.4%	3.0%

3. SHORT TERM DEBT LEVY

As per Section 4.2 of the Decision on Electricity Tariffs 2011, repayment of short terms debts of Ceylon Electricity Board that were prevailing at the start of year 2011 were allowed as a cost for year 2013. Hence, the Commission has approved LKR 1311.26 Million of short term debt repayment for the period of July to December 2013.

Therefore the short term debt repayment allowed for a unit supplied to MV system is LKR 0.22 per kWh.

4. GENERATION COSTS

The approved generation dispatch for July - December 2013 is shown in Table 4 below.

Table 4- Dispatch Approved By the Commission for July-December 2013

			Month of y	-		July-Decell			
Month	Code	Unit	Jul	Aug	Sep	Oct	Nov	Dec	Total
Independent Power									
Producers (IPPs)								l	
ASIA Power – 45 MW	DAPL	GWh	31.0	27.0	26.0	27.0	26.0	29.0	166.0
AES Kelanitissa – 165 MW	CAES	GWh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Barge – 60 MW	DCPL	GWh	35.5	37.9	34.3	35.5	31.8	37.9	212.9
Heladhanavi – Put. – 99 MW	DPUT	GWh	62.6	62.6	60.6	62.6	60.6	62.6	371.6
ACE – Embilipitiya – 99 MW	DEMB	GWh	57.7	57.7	55.6	49.2	47.0	57.7	324.9
Kerawalapitiya – 270 MW	CCKW	GWh	36.9	36.9	35.3	36.9	0.0	0.0	146.0
TOTAL IPP		GWh	223.7	222.1	211.8	211.2	165.4	187.2	1,221.4
CEB GL's Thermal									
<u>Generation</u>									
Sapu Old 4 x 18 MW	DSP1	GWh	14.6	32.7	31.7	32.7	26.4	32.7	170.8
Sapu Ext. 8 x 9 MW	DSP2	GWh	34.8	40.5	39.2	40.5	39.2	34.8	229.0
KPS GT 5 x 17 MW	GT16	GWh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KPS GT 1 x 115 MW	GT07	GWh	0.0	8.6	0.0	0.0	0.0	8.6	17.2
KPS Combined – 165 MW	CCKP	GWh	53.4	56.7	53.4	56.7	53.4	56.7	330.3
Coal – Puttlam 300 MW	CPUT	GWh	162.3	162.3	157.1	162.3	207.1	262.3	1,113.4
Total CEB GL's Thermal									
Generation		GWh	265.1	300.8	281.4	292.2	326.1	395.1	1,860.7
Renewable energy	NCRE	GWh	70.4	59.4	70.4	75.4	75.4	70.4	421.4
	50	0144	0.5	0.5	0.5	0.0	0.0	0.0	4.5
Chunnakam	DCHU	GWh	0.5	0.5	0.5	0.0	0.0	0.0	1.5
New Chunnakam	DNCHU	GWh	15.2	15.2	14.7	15.2	14.7	15.2	90.2
Northern Power	DNOR	GWh	10.0	10.0	9.7	10.0	9.7	10.0	59.4
Total Northern generation		GWh	25.7	25.7	24.9	25.2	24.4	25.2	151.1
CEB GL's Hydropower									
Generation		GWh	472.3	438.1	446.5	451.9	416.8	371.9	2597.5
Total Generation		GWh	1,057.2	1,046.1	1,035.0	1,055.9	1,008.1	1,049.8	6,252.1

Forecast system coincident peak generation demand and the approved monthly capacity costs of each generation plant/ hydro scheme are shown in Table 5 below.

Table 5- Approved Capacity payments to GL by TL for July-December 2013

Item\Month	Unit	Jul	Aug	Sep	Oct	Nov	Dec
System	MW						
Coincident Peak		1993	1992	1948	1980	1883	1978
demand							

Capacity Payment

Plant\Month	Unit	Jul	Aug	Sep	Oct	Nov	Dec
Mahaweli	Mn. LKR	615.9	615.9	615.9	615.9	615.9	615.9
Laxapana	Mn. LKR	188.4	188.4	188.4	188.4	188.4	188.4
Other Hydro	Mn. LKR	185.1	185.1	185.1	185.1	185.1	185.1
GTSM	Mn. LKR	26.2	34.5	34.5	34.5	34.5	34.5
DSP	Mn. LKR	76.5	76.5	76.5	76.5	76.5	76.5
DSPX	Mn. LKR	86.1	86.1	86.1	86.1	86.1	86.1
DAPL	Mn. LKR	145.3	145.3	145.3	145.3	145.3	145.3
ССКР	Mn. LKR	146.6	146.6	146.6	146.6	146.6	146.6
CAES	Mn. LKR	272.0	272.0	263.0	42.0	41.0	42.0
DCPL	Mn. LKR	82.6	88.2	79.8	82.6	74.0	88.2
DPUT	Mn. LKR	116.8	116.8	116.8	116.8	116.8	116.8
DEMB	Mn. LKR	77.6	77.6	77.6	83.6	83.6	83.6
CCKW	Mn. LKR	631.4	570.3	631.4	611.0	639.9	619.3
CPUT	Mn. LKR	153.4	153.4	153.4	153.4	153.4	153.4
RENW	Mn. LKR	0.0	0.0	0.0	0.0	0.0	0.0
GT7	Mn. LKR	27.5	27.5	27.5	27.5	27.5	27.5
DCHU	Mn. LKR	9.7	9.7	9.7	9.7	9.7	9.7
DNOR	Mn. LKR	47.5	42.9	47.5	46.0	47.5	46.0
DNCHU	Mn. LKR	23.7	23.7	23.7	23.7	23.7	23.7
TOTAL	Mn. LKR	2,912.5	2,860.7	2,909.0	2,674.9	2,695.8	2,688.8
Depreciation Provision Excluded from CEB GL	Mn. LKR	556.74	556.74	556.74	556.74	556.74	556.74
Return of Equity allowed for CEB GL	Mn. LKR	111.35	111.35	111.35	111.35	111.35	111.35

Generation Capacity cost

	Unit	Jul	Aug	Sep	Oct	Nov	Dec
Average	LKR/M						
Generation	W	1,238,090	1,212,212	1,264,792	1,126,059	1,194,838	1,134,335
Capacity cost							

Forecast monthly generation from each generation plant along with approved average cost LKR/kWh is shown in Table 6 below.

Table 6- Approved Energy Payments to GL by TL for July-December 2013

Jul Aug Sep Oct

Plant\Month	Unit	Jul	Aug	Sep	Oct	Nov	Dec
Hydro	GWh	472.3	438.1	446.5	451.9	416.8	371.9
	LKR/kWh	0.0	0.0	0.0	0.0	0.0	0.0
GTSM	GWh	0.0	0.0	0.0	0.0	0.0	0.0
	LKR/kWh						
DSP	GWh	14.6	32.7	31.7	32.7	26.4	32.7
	LKR/kWh	28.2	24.6	24.8	24.6	25.3	24.7
DSPX	GWh	34.8	40.5	39.2	40.5	39.2	34.8
	LKR/kWh	22.8	23.3	23.4	23.3	23.4	23.7
DAPL	GWh	31.0	27.0	26.0	27.0	26.0	29.0
	LKR/kWh	24.3	24.4	24.4	24.4	24.4	24.4
ССКР	GWh	53.4	56.7	53.4	56.7	53.4	56.7
	LKR/kWh	26.5	26.8	27.0	27.3	26.6	27.1
CAES	GWh	0.0	0.0	0.0	0.0	0.0	0.0
	LKR/kWh						
DCPL	GWh	35.5	37.9	34.3	35.5	31.8	37.9
	LKR/kWh	22.7	22.7	22.7	22.7	22.7	22.7
DPUT	GWh	62.6	62.6	60.6	62.6	60.6	62.6
	LKR/kWh	22.1	22.1	22.2	22.1	22.2	22.1
DEMB	GWh	57.7	57.7	55.6	49.2	47.0	57.7
	LKR/kWh	23.3	23.3	23.4	23.5	23.5	23.3
CCKW	GWh	36.9	36.9	35.3	36.9	0.0	0.0
	LKR/kWh	24.9	24.9	25.0	24.9		
CPUT	GWh	162.3	162.3	157.1	162.3	207.1	262.3
	LKR/kWh	8.1	8.1	8.1	8.1	8.0	8.0
RENW	GWh	70.4	59.4	70.4	75.4	75.4	70.4
	LKR/kWh	18.0	19.2	17.9	15.6	14.3	14.1
GT7	GWh	0.0	8.6	0.0	0.0	0.0	8.6
	LKR/kWh		41.1				41.2
DCHU	GWh	0.5	0.5	0.5	0.0	0.0	0.0
	LKR/kWh	29.0	29.0	29.0			
DNOR	GWh	10.0	10.0	9.7	10.0	9.7	10.0
D 1 ()	LKR/kWh	24.9	24.9	24.9	24.9	24.9	24.9
DNCHU(Jaffna)	GWh	15.2	15.2	14.7	15.2	14.7	15.2
	LKR/kWh	21.7	21.9	21.7	21.8	22.0	21.9
TOTAL generated	GWh						
energy		1,057.2	1,046.1	1,035.0	1,055.9	1,008.1	1,049.8
Namethia Francis	LVD	1		1			
Monthly Energy Cost	LKR Million	11,002	11,834	11,189	11,289	10,116	11,498
Total Energy cost	LKR	66,928	-1,00+	11,100	11,203	10,110	11,130
for six-months	Million	•					
Total energy							
dispatch for six- months	GWh	6,252					
Six-month	GVVII						
average energy		10.70					
cost	LKR/kWh						

Above mentioned Generation Costs are based on the assumption of following fuel costs for electricity generation

Table 7- Fuel Costs Relevant for the Period July-December 2013

Fuel	Unit	Cost
Coal	LKR / kg	18.23
Diesel	LKR / L	121.00
Furnace Oil	LKR / L	90.00
Heavy Fuel	LKR / L	90.00
Furnace Oil (low Sulphur)	LKR / L	100.00
Naphtha	LKR / L	90.00

5. ENERGY COSTS IN EACH INTERVAL FOR TOU PRICING

Using the approved Methodology, the Commission has determined that the peak adjustment factors to be as given in Table 8 below.

Table 8- Approved Peak Adjustment Factors

Time interval for TOU	Factor	Value
pricing		
0530-1830	k1	1
1830-2230	k2	1.25
2230-0530	k3	0.75

The energy dispatches and costs in each interval are provided in table below. The Commission has assessed the energy dispatches in each interval using historic information on the load profile on typical weekdays, week-ends and holidays.

Table 9- Monthly Energy Dispatches and Costs in the TOU Regime for July-December 2013

Average Generation Energy cost in each month

	Unit	Jul	Aug	Sep	Oct	Nov	Dec	
Generation Energy cost	LKR/kWh	10.41	11.31	10.81	10.69	10.03	10.95	
	Month 7 - TOU tariffs							
Energy Interval dispatched (GWh)		dispatched	k Fact	or	Adjusted k Facto		Charge (R/kWh)	
B1 (day)		600 1			0.99		10.35	
B2 (peak)		240 1.25		5	1.24		12.94	
B3 (off-peak)		217	0.75	5	0.75		7.76	

Month 8 - TOU tariffs								
Interval Energy dispatched (GWh) k Factor (#) Adjusted k Factor (LKR/kWh)								
B1 (day)	594	1	0.99	11.25				
B2 (peak)	237	1.25	1.24	14.06				
B3 (off-peak)	214	0.75	0.75	8.44				

Month 9 - TOU tariffs									
Interval	Interval Energy dispatched (GWh) k Factor (#) Adjusted k Factor (LKR/kWh)								
B1 (day)	588	1	0.99	10.75					
B2 (peak)	235	1.25	1.24	13.44					
B3 (off-peak)	212	0.75	0.75	8.06					

Month 10 - TOU tariffs										
Interval	Energy dispatched	k Factor	Adjusted k Factor	Charge						
	(GWh)	(#)	(#)	(LKR/kWh)						
B1 (day)	600	1	0.99	10.63						
B2 (peak)	240	1.25	1.24	13.29						
B3 (off-peak)	216	0.75	0.75	7.97						

Month 11 - TOU tariffs										
Interval	Energy dispatched	k Factor	Adjusted k Factor	Charge						
	(GWh)	(#)	(#)	(LKR/kWh)						
B1 (day)	573	1	0.99	9.98						
B2 (peak)	229	1.25	1.24	12.47						
B3 (off-peak)	207	0.75	0.75	7.48						

Month 12 - TOU tariffs										
Interval	Energy dispatched	k Factor	Adjusted k Factor	Charge						
	(GWh)	(#)	(#)	(LKR/kWh)						
B1 (day)	596	1	0.99	10.89						
B2 (peak)	238	1.25	1.24	13.62						
B3 (off-peak)	215	0.75	0.75	8.17						

6. COMBINED COSTS OF SINGLE BUYER, AND TRANSMISSION AND BSOB

The allowed capacity costs of generation and energy costs of generation have been combined with the allowed transmission and BSOB costs to calculate the Bulk Supply Tariffs (BST) for sales by the TL to DLs. The approved average BST in each month in each TOU interval is given below and provides the six-month average.

Table 10- Combined Transfer Price from TL to dLs for July-December 2013

Capacity Charge

	Unit			Мо	nth		
	Onit	Jul	Aug	Sep	Oct	Nov	Dec
Capacity Charge							
Generation capacity	LKR/MW	1,238,089.80	1,212,211.59	1,264,792.32	1,126,058.58	1,194,838.12	1,134,335.32
Transmission	LKR/MW	318,272.04	318,304.30	325,596.99	320,317.04	336,732.98	320,676.80
Bulk Supply and							
Operations Business	LKR/MW	5,652.18	5,652.75	5,782.26	5,688.50	5,980.03	5,694.88
BST (C)	LKR/MW	1,562,014.03	1,536,168.64	1,596,171.57	1,452,064.11	1,537,551.13	1,460,707.01
BST (C) 6-Month Weighted average	LKR/MW /month	1,523,871.81					

Energy Charge

				Mo	nth		
	Unit	Jul	Aug	Sep	Oct	Nov	Dec
Interval 1 (day)							
Transmission Loss Factor B1	%	2.67%	2.67%	2.67%	2.67%	2.67%	2.67%
Generation energy Cost B1	LKR/kWh	10.35	11.25	10.75	10.63	9.98	10.89
BST (E1)	LKR/kWh	10.63	11.55	11.04	10.92	10.25	11.18

Interval 2 (peak)

Transmission Loss Factor B2	%	3.41%	3.41%	3.41%	3.41%	3.41%	3.41%
Generation energy Cost B2	LKR/kWh	12.94	14.06	13.44	13.29	12.47	13.62
BST (E2)	LKR/kWh	13.38	14.54	13.90	13.74	12.90	14.08

Interval 3 (off-peak)

Transmission Loss Factor B3	%	1.89%	1.89%	1.89%	1.89%	1.89%	1.89%
Generation energy Cost B3	LKR/kWh	7.76	8.44	8.06	7.97	7.48	8.17
	LKR/kWh	7.91	8.60	8.22	8.13	7.63	8.32

Table 11- Approved Six-month Average Bulk Supply Tariffs for July-December 2013

	Unit	Economic dispatch	Short-term debt recovery	Total BST (E)
BST day (E1)	LKR/kWh	10.93	0.22	11.15
6-Month weighted average				
BST peak (E2)	LKR/kWh	13.76	0.22	13.98
6-Month weighted average				
BST off-peak (E3)	LKR/kWh	8.14	0.22	8.35
6-Month weighted average				

BST = Bulk Supply Tariff, means the average transfer price from Transmission to Distribution Licensees

E1, E2, E3 refer to the energy delivered in the three time intervals in the time-of-use tariffs regime. ie 0530-1830, 1830-2230 and 2230-0530, respectively.

7. APPROVED BST FROM TL TO EACH DL

Owing to the requirement to maintain a Uniform National Tariff (UNT) and owing to the varying customer mix among Distribution Licensees, the BST to each DL was adjusted, to enable each Distribution Licensee to recover their full allowed revenues. The summary calculation as per section 5.2.1 of the tariff methodology, and the approved BSTs are shown in Table 12

The Transmission Licensee is hereby directed to invoice each Distribution Licensee at the rates shown in Table 12 as (i) Approved BST for payment on Coincident Maximum, and (ii) Approved BST for energy in each TOU interval. In addition, adjustment of sales to DL5 by DL2, DL3 and DL4 shall be done as per section 8.3 of the Decision on electricity Tariffs 2011.

Table 12- Approved BST from Transmission to each Distribution Licensee

Description	Units	DL1: CEB	DL2: CEB	DL3: CEB	DL4: CEB	DL5: LECO	Total
		Region 1	Region 2	Region 3	Region 4		
Sales to end-use customers	GWh	3,124	3,121	2,026	1,428	1,250	10,950
Revenue based on approved customer tariffs (Jul-Dec),(excluding Fuel Adjustment Charge)	LKR Million	27,808	23,381	15,317	11,885	11,874	90,265
Coincident peak demand for purchases from Transmission	MW	520	569	382	274	217	

Approved BST for payment on Coincident Maximum Demand	LKR/MW/ month	1,523,872	1,523,872	1,523,872	1,523,872	1,523,872					
Amount payable to Transmission on account of Demand (Jul-Dec)	LKR Million	4,756	5,199	3,497	2,507	1,983	17,942				
Revenue to be recovered by Transmission through energy charges	LKR Million	19,471	14,122	9,499	7,370	8,609	59,072				
Energy sold from Transmission at MV	GWh	1,735	1,776	1,120	796	684	6,112				
Approved BST for energy in e	Approved BST for energy in each TOU interval										
Day (0530-1830)	LKR/kWh	11.12	7.88	8.40	9.17	12.47					
Peak (1830-2230)	LKR/kWh	13.94	9.88	10.53	11.50	15.63					
Off Peak (2230-0530)	LKR/kWh	8.33	5.90	6.29	6.87	9.34					

Notes:

- 1. Loss adjustment for energy delivered to LECO is continue to done as per the section 8.3 of Decision on Electricity Tariffs 2011
- 2. The generation prices from the Single Buyer are applicable only for the period July 2013 to December 2013, after which the correction mechanisms stated in the Methodology shall be applicable. Similarly, other corrections would be effective at the time intervals stated in the Methodology.