DECISION ON TRANSMISSION AND BULK SUPPLY TARIFFS

(Effective from 1st January 2012)

Public Utilities Commission of Sri Lanka

DECISION ON BULK SUPPLY TARIFFS- JANUARY-JUNE 2012

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 January to June 2012, and hereby approved and requested the transmission licensee to implement the bulk supply tariffs effective from 1st of January 2012.

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.

APPROVED REVENUE CAP OF THE TL AND DLS

Approved Transmission and BSOB revenue caps given in the 'Decision on Electricity Tariffs-2011' section 3.3 are adjusted and approved as per the Tariff Methodology section 2.3.2.9 and given in Table 01

Table 01: ADJUSTED APPROVED TRANSMISSION AND BSOB REVENUE CAPS

Adjusted Transmission Revenue Caps		**2012**
Transmission Revenue Cap	LKR million	7,457.0
BSOB Revenue Cap	LKR million	123.8
Total allowed revenue	LKR million	7,581.0

Approved Distribution and Retail Services revenue caps given in the 'Decision on Electricity Tariffs-2011' section 2.3 are adjusted and approved as per the Tariff Methodology sections 3.1.2.8 and 3.2.1,and given in Table 02

TABLE 02: ADJUSTED APPROVED DISTRIBUTION AND RETAIL SERVICES REVENUE CAPS AS PER THE TARIFF METHODOLOGY SECTION 3.1.2.8 AND 3.2.1

Adjusted distribution Revenue Caps		DL1	DL2	DL3	DL4	DL5	Total
Distribution revenue cap	LKR million	6,980	7,111	4,329	3,299	2,318	24,038
Retail services revenue	LKR million	629	861	489	403	304	2,686
Total allowed revenue	LKR million	7,609	7,973	4,818	3,702	2,621	26,723

Allowed Losses of Transmission Licensee and Distribution Licensees

TABLE 03: ALLOWED LOSSES FOR 2012

	DL1	DL2	DL3	DL4	DL5	TL
ALLOWED LOSSES	8.9%	11.8%	8.9%	10.1%	5.6%	3.0%

POWER GENERATION COSTS

Table 04: Dispatch Filed and approved by the Commission (Jan-June 2012)

			Month of year 2012						
Month	Code	Unit	1	2	3	4	5	6	Total
Independent Power Producers (IPPs)									
Lakdhanavi Sapu. – 22.5 MW	DLDL	GWh	10.7	10.7	9.8	8.2	8.4	9.1	56.9
ASIA Power – 45 MW	DAPL	GWh	29.8	31.5	34.1	27.6	32.6	32.2	187.8
AES Kelanitissa – 165 MW	CAES	GWh	85.40	69.6	65.2	41.3	55.6	60.6	377.7
Barge – 60 MW	DCPL	GWh	42.8	40.10	43.1	41.3	44	40.9	252.2
ACE – Matara – 20 MW	DMAT	GWh	17.1	15.8	10	0.0	0.0	0.0	42.9
ACE – Horana – 20 MW	DHOR	GWh	17.7	16.7	17	13.8	16.9	17.2	99.3
Heladhanavi – Put. – 99 MW	DPUT	GWh	59.1	62.1	70	59.7	60.1	54.9	365.9
ACE – Embilipitiya – 99 MW	DEMB	GWh	59.3	53	56.5	48.4	53.7	56.1	327
Kerawalapitiya – 270 MW	CCKW	GWh	161.9	145.1	170.2	103.7	155.9	119.2	856
TOTAL IPP			483.8	444.6	475.9	344	427.2	390.2	2565.7
CEB GL's Thermal Generation									
Sapu Old 4 x 18 MW	DSP1	GWh	32.9	30.6	33.7	32.8	32.7	32.8	195.5
Sapu Ext. 8 x 9 MW	DSP2	GWh	47.1	43.2	46.6	46.2	42.8	44	269.9
KPS GT 5 x 17 MW	GT16	GWh	17.3	16.4	3.1	0.1	0.4	13.8	51.1
KPS GT 1 x 115 MW	GT07	GWh	0.00	0.00	0.00	0.00	0.00	0.00	0
KPS Combined – 165 MW	CCKP	GWh	79.6	83.9	89.5	57.8	83.3	90.4	484.5
Naptha		GWh							
Diesel		GWh							
Coal – Puttlam 300 MW	CPUT	GWh	79.7	56.3	177.2	145.8	170.9	160.6	790.5
Total CEB GL's Thermal Generation			307.5	284.0	365.8	282.7	330.1	341.6	1911.7
Renewable energy	NCRE	GWh	26	26	20	59	25	30	186
Chunnakam	DCHU	GWh	0.00	0.00	0.00	0.00	0.00	0.00	0
Aggreko	DAGR	GWh	6.17	5.72	6.39	6.30	6.21	6.30	37.08
Northern Power	DNOR	GWh	7.54	6.99	7.81	7.70	7.59	7.70	45.32
Total Northern generation		GWh	13.7	12.7	14.2	14	13.8	14	82.4
CEB GL's Hydropower Generation		GWh	160.3	155.4	160.1	211.7	220.8	183.5	1091.8
Total Generation		GWh	992	922	1036	911	1017	959	5838
Coincident Peak Demand		MW	2186	2155	2260	2086	2133	2164	

Table 05: Details of Filed and adjusted capacity payments for Generation (Jan-June 2012)

Item\Month	Unit	1	2	3	4	5	6
System Coincidental Peak demand	MW	2186	2155	2260	2086	2133	2164

Capacity Payment

Plant\Month	Unit	Jan	Feb	Mar	Apr	May	Jun
Mahaweli	Mn. SLR	476.85	476.85	476.85	476.85	476.85	476.85
Laxapana	Mn. SLR	202.65	202.65	202.65	202.65	202.65	202.65
Other Hydro	Mn. SLR	160.40	160.40	160.40	160.40	160.40	160.40
GTSM	Mn. SLR	18.02	18.02	18.02	18.02	18.02	18.02
DSP	Mn. SLR	61.19	61.19	61.19	61.19	61.19	61.19
DSPX	Mn. SLR	68.83	68.83	68.83	68.83	68.83	68.83
DLDL	Mn. SLR	29.67	29.67	27.18	22.74	23.29	25.23
DAPL	Mn. SLR	123.87	123.87	139.02	142.28	143.02	145.79
CCKP	Mn. SLR	124.19	124.19	124.19	124.19	124.19	124.19
CAES	Mn. SLR	244.91	244.91	244.91	244.91	244.91	244.91
DCPL	Mn. SLR	83.96	78.67	90.66	88.13	94.20	88.62
DHOR	Mn. SLR	38.44	38.44	43.49	44.58	44.83	45.75
DMAT	Mn. SLR	32.52	32.52	36.80	0.00	0.00	0.00
DPUT	Mn. SLR	99.65	99.65	112.75	115.57	116.22	118.61
DEMB	Mn. SLR	116.08	116.08	131.35	76.35	76.77	78.35
GTKW	Mn. SLR						
CCKW	Mn. SLR	574.44	555.16	623.56	612.16	631.06	611.19
CPUT	Mn. SLR	52.50	52.50	52.50	52.50	52.50	52.50
RENW	Mn. SLR	0.00	0.00	0.00	0.00	0.00	0.00
GT7	Mn. SLR	21.04	21.04	21.04	21.04	21.04	21.04
DCHU	Mn. SLR	0.00	0.00	0.00	0.00	0.00	0.00
DAGG	Mn. SLR	44.52	41.65	50.38	49.97	51.93	51.29
DNOR	Mn. SLR	35.72	33.41	40.41	40.09	41.66	41.14
CTRC	Mn. SLR						
COSB	Mn. SLR						
TOTAL	Mn. SLR	2609.450	2579.694	2726.164	2622.444	2653.563	2636.557

Depreciation Provision Excluded from CEB GL	Mn. SLR	556.74	556.74	556.74	556.74	556.74	556.74

Return of Equity allowed for CEB GL	Mn. SLR	111.35	111.35	111.35	111.35	111.35	111.35

Generation Capacity cost	**SLR/MW**	989,963.4	990,396.3	1,009,191.9	1,043,650.2	1,035,242.7	1,012,554.1

Table 06: Details of allowed Energy Cost of Generation Jan- June 2012

Plant\Month	Unit	Jan	Feb	Mar	Apr	May	Jun
CEB Hydro	GWh	160.3	155.4	160.1	211.7	220.8	183.5
	SLR/kWh						
GTSM	GWh	17.3	16.4	3.1	0.1	0.4	13.8
	SLR/kWh	39.48	49.17	68.49	428.80	149.56	59.18
DSP	GWh	32.9	30.6	33.7	32.8	32.7	32.8
	SLR/kWh	15.59	16.71	17.40	17.47	17.48	17.47
DSPX	GWh	47.1	43.2	46.6	46.2	42.8	44
	SLR/kWh	14.26	15.32	16.07	16.09	16.23	16.18
DLDL	GWh	10.7	10.7	9.8	8.2	8.4	9.1
	SLR/kWh	15.37	16.32	17.43	17.47	17.48	17.51
DAPL	GWh	29.8	31.5	34.1	27.6	32.6	32.2
	SLR/kWh	14.37	14.37	14.49	14.52	14.52	14.54
CCKP	GWh	79.6	83.9	89.5	57.8	83.3	90.4
	SLR/kWh	16.39	20.41	24.44	24.64	24.46	24.43
CAES	GWh	85.40	69.60	65.20	41.30	55.60	60.60
	SLR/kWh	16.75	16.75	16.75	16.75	16.75	16.75
DCPL	GWh	42.80	40.10	43.10	41.30	44.00	40.90
	SLR/kWh	14.49	15.45	16.42	16.43	16.43	16.43
DHOR	GWh	17.70	16.70	17.00	13.80	16.90	17.20
	SLR/kWh	14.52	15.52	16.53	16.53	16.54	16.54
DMAT	GWh	17.10	15.80	10.00	0.00	0.00	0.00
	SLR/kWh	14.66	15.66	16.68	11.17	11.17	11.17
DPUT	GWh	59.10	62.10	70.00	59.70	60.10	54.90
	SLR/kWh	13.59	14.53	15.48	15.48	15.48	15.49
DEMB	GWh	59.30	53.00	56.50	48.40	53.70	56.10
	SLR/kWh	14.46	15.48	16.50	16.51	16.51	16.51
CCKW	GWh	161.90	145.10	170.20	103.70	155.90	119.20
	SLR/kWh	13.29	16.32	17.26	18.88	17.59	18.76
CPUT	GWh	79.70	56.30	177.20	145.80	170.90	160.60
	SLR/kWh	6.37	6.41	6.32	6.33	6.32	6.33
RENW	GWh	26.00	26.00	20.00	59.00	25.00	30.00
	SLR/kWh	11.21	12.37	12.28	12.11	12.69	13.69
GT7	GWh	50.90	53.60	15.70	0.00	0.00	0.00
	SLR/kWh	26.24	32.67	41.42	-	-	-
DAGG	GWh	6.17	5.72	6.39	6.30	6.21	6.30
	SLR/kWh	22.27	27.80	33.42	33.44	33.45	33.46
DNOR	GWh	7.54	6.99	7.81	7.70	7.59	7.70
	SLR/kWh	19.74	24.20	28.86	28.90	28.91	28.95

Energy

Month	**Unit**	**1**	**2**	**3**	**4**	**5**	**6**
TOTAL generated energy	GWh	991.30	922.70	1,036.00	911.40	1,016.90	959.30

Monthly Energy Cost	SLR million	12,557	13,463	14,057	10,677	12,302	12,782
Total Energy cost for six-months	SLR million	75,837					
Total energy dispatch for six-months	GWh	5838					
Six-month average energy cost	SLR/ kWh	12.99					

Above mentioned Generation Costs are based on the assumption of following fuel prices (Effective from 12th February 2012)

Fuel	Unit	Cost
Coal	LKR / kg	15.70
Diesel	LKR / Ltr	115.00
Furnace Oil	LKR / Ltr	65.00
Heavy Fuel	LKR / Ltr	65.00
Furnace Oil (low Sulphur)	LKR / Ltr	75.00
Naphtha	LKR/Ltr	90.00

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 09:

Table 07: Approved Peak Adjustment Factors

Time interval for TOU pricing	Factor	Value
0530-1830	k1	1.0
1830-2230	k2	1.3
2230-0530	k3	0.7

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 08: Monthly Energy Dispatches and Costs in the TOU Regime (Jan-June 2012)

Average Generation Energy cost in each month

	Unit	1	2	3	4	5	6
Generation Energy cost	SLR/kWh	12.67	14.59	13.57	11.72	12.10	13.32

Month 1 - TOU tariffs				
Interval	Energy dispatched (GWh)	k Factor (#)	Adjusted k Factor (#)	Charge (SLR/kWh)
B1 (day)	563	1	0.99	12.60
B2 (peak)	225	1.25	1.24	15.75
B3 (off-peak)	203	0.75	0.75	9.45

Month 2 - TOU tariffs				
Interval	Energy dispatched (GWh)	k Factor (#)	Adjusted k Factor (#)	Charge (LKR/kWh)
B1 (day)	524	1	0.99	14.51
B2 (peak)	209	1.25	1.24	18.14
B3 (off-peak)	189	0.75	0.75	10.88

Month 3 - TOU tariffs				
Interval	Energy dispatched (GWh)	k Factor (#)	Adjusted k Factor (#)	Charge (LKR/kWh)
B1 (day)	588	1	0.99	13.49
B2 (peak)	235	1.25	1.24	16.87
B3 (off-peak)	212	0.75	0.75	10.12

Month 4 - TOU tariffs				
Interval	Energy dispatched (GWh)	k Factor (#)	Adjusted k Factor (#)	Charge (LKR/kWh)
B1 (day)	518	1	0.99	11.65
B2 (peak)	207	1.25	1.24	14.56
B3 (off-peak)	187	0.75	0.75	8.74

Month 5 - TOU tariffs				
Block	Energy dispatched (GWh)	k Factor (#)	Adjusted k Factor (#)	Charge (SLR/kWh)
B1 (day)	578	1	0.99	12.03
B2 (peak)	231	1.25	1.24	15.04
B3 (off-peak)	208	0.75	0.75	9.02

Month 6 - TOU tariffs				
Block	Energy dispatched (GWh)	k Factor (#)	Adjusted k Factor (#)	Charge (SLR/kWh)
B1 (day)	545	1	0.99	13.25
B2 (peak)	218	1.25	1.24	16.56
B3 (off-peak)	197	0.75	0.75	9.94

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 09: Forecasted Approved Bulk Supply Tariffs Monthly Average BST from the TL to DLs

Capacity Charge

	Unit	Month					
		1	2	3	4	5	6
Capacity Charge							
Generation capacity	SLR/MW	989,963.38	990,396.27	1,009,191.90	1,043,650.15	1,035,242.72	1,012,554.14
Transmission	SLR/MW	284,271.13	288,360.42	274,963.14	297,898.71	291,334.60	287,161.14
Bulk Supply and Operations Business	SLR/MW	4,719.44	4,787.33	4,564.91	4,945.69	4,836.71	4,767.42
BST (C)	**SLR/MW**	1,278,953.96	1,283,544.02	1,288,719.95	1,346,494.54	1,331,414.03	1,304,482.70
BST (C) 6-Month Weighted average	**SLR/MW. month**	**1,305,139.6**					

Energy Charge

	Unit	Month					
		1	2	3	4	5	6
Interval 1 (day)							
Transmission Loss Factor B1	%	3.08%	3.08%	3.08%	3.08%	3.08%	3.08%
Generation energy Cost B1	SLR/kWh	12.60	14.51	13.49	11.65	12.03	13.25
BST (E1)	**LKR/kWh**	12.99	14.96	13.91	12.01	12.40	13.66
Interval 2 (peak)							
Transmission Loss Factor B2	%	3.93%	3.93%	3.93%	3.93%	3.93%	3.93%
Generation energy Cost B2	SLR/kWh	15.75	18.14	16.87	14.56	15.04	16.56
BST (E2)	**SLR/kWh**	16.37	18.85	17.53	15.14	15.63	17.22
Interval 3 (off-peak)							
Transmission Loss Factor B3	%	2.18%	2.18%	2.18%	2.18%	2.18%	2.18%
Generation energy Cost B3	SLR/kWh	9.45	10.88	10.12	8.74	9.02	9.94
BST (E3)	**SLR/kWh**	9.65	11.12	10.34	8.93	9.22	10.16

Table 10: Approved Six-month Average Bulk Supply Tariffs for Transfers from TL

		Economic dispatch	Short-term debt recovery	Renewable energy above avoided costs	Total BST (E)
BST day (E1) 6-Month weighed average	**SLR/kWh**	13.22	0.42	0.10	13.74
BST peak (E2) 6-Month weighed average	**SLR/kWh**	16.69	0.42	0.10	17.21
BST off-peak (E3) 6-Month weighed average	**SLR/kWh**	9.80	0.42	0.10	10.32

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.

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 11.

The Transmission Licensee is hereby directed to invoice each Distribution Licensee at the rates shown in Table 11 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 of the Decision of Tariffs.

Table 11: Approved BST from Transmission to each Distribution Licensee

Description	Units	DL1: CEB Region 1	DL2: CEB Region 2	DL3: CEB Region 3	DL4: CEB Region 4	DL5: LECO	Total
Sales to end-use customers	GWh	2,877	3,008	2,012	1,312	1,218	10,427
Total revenue based on approved customer tariffs	LKR million	42,512	35,180	23,756	16,806	18,022	136,276
Coincident peak demand for purchases from Transmission	MW	561	701	408	317	273	
Approved BST for payment on Coincident Maximum Demand	**LKR/ MW. month**	1,305,140	1,305,140	1,305,140	1,305,140	1,305,140	
Amount payable to Transmission on account of Demand (6 month)	LKR million	4,390	5,488	3,197	2,480	2,136	17,691
Revenue to be recovered by Transmission through energy charges	LKR million	12,745	7,870	6,100	3,953	5,425	36,093
Energy sold from Transmission at MV	GWh	1,550	1,674	1,084	716	633	5,659
Approved BST for energy in each TOU interval							
Day (0530-1830)	**LKR/kWh**	8.18	4.68	5.60	5.49	8.52	
Peak (1830-2230)	**LKR/kWh**	10.24	5.86	7.01	6.87	10.67	
Off Peak (2230-0530)	**LKR/kWh**	6.14	3.51	4.20	4.12	6.40	

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. Revenues and prices are shown for a nominal period of one-year. However, the generation prices from the Single Buyer are applicable only for the period January 2012 to June 2012, 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.