

DECISION ON TRANSMISSION AND BULK SUPPLY TARIFFS

(Effective from 1st July 2011)

Public Utilities Commission of Sri Lanka

DECISION ON BULK SUPPLY TARIFFS- JULY- DECEMBER 2011

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 2011, and hereby approved and requested the transmission licensee to implement the bulk supply tariffs effective from 1st of July 2011.

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

The approved revenue cap for Transmission and for BSOB is given in Table 01.

Table 01: Transmission and BSOB Revenue Cap

Approved Revenue Cap		2011	2012	2013	2014	2015
Transmission Revenue Cap	LKR million	7,113.4	7,113.4	7,113.4	7,113.4	7,113.4
BSOB Revenue Cap	LKR million	118.0	118.0	118.0	118.0	118.0
Total allowed revenue	LKR million	7,231.4	7,231.4	7,231.4	7,231.4	7,231.4

POWER GENERATION COSTS

Table 02: Dispatch Filed and approved by the Commission (July-Dec 2011)

Month	Code	Unit	Month of year 2011						Total
			7	8	9	10	11	12	
Independent Power Producers (IPPs)									
Lakdhanavi Sapu - 22.5 MW	DLDL	GWh	14.23	14.23	17.48	11.93	13.77	12.39	84.03
ASIA Power - 45 MW	DAPL	GWh	30.99	26.99	25.99	26.99	25.99	28.99	165.94
AES Kelanitissa - 165 MW	CAES	GWh	9.08	9.08	0	0	0	4.95	23.11
Barge - 60 MW	DCPL	GWh	35.5	37.94	34.27	35.50	31.82	37.94	212.97
ACE - Matara - 20 MW	DMAT	GWh	15.18	15.18	12.73	13.22	12.73	13.22	82.26
ACE - Horana - 20 MW	DHOR	GWh	15.18	15.18	10.77	15.18	14.69	15.18	86.18
Heladhanavi - Put. - 99 MW	DPUT	GWh	54.53	52.51	50.49	62.61	60.59	62.61	343.34
ACE - Embilipitiya - 99 MW	DEMB	GWh	61.65	69.97	49.66	51.92	49.66	60.94	343.80
Kerawalapitiya - 270 MW	CCKW	GWh	59.67	107.41	64.26	67.47	64.26	83.54	446.61
TOTAL IPP			296.01	348.49	265.65	284.82	273.51	319.76	1788.24
CEB GL's Thermal Generation									
Sapu Old 4 x 18 MW	DSP1	GWh	34.15	34.15	33.05	28.93	33.05	30.13	193.46
Sapu Ext. 8 x 9 MW	DSP2	GWh	42.18	42.18	40.82	42.18	40.82	42.18	250.36
KPS GT 5 x 17 MW	GT16	GWh	0.38	0.38	0.19	0.38	0.19	0.38	1.90
KPS GT 1 x 115 MW	GT07	GWh	5.00	5.00	5.00	5.00	5.00	5.00	30
KPS Combined - 165 MW	CCKP	GWh	17.6	51.2	51.6	55.04	51.6	55.04	282.08
Diesel		GWh							
Coal - Puttlam 300 MW	CPUT	GWh	150.74	155.18	153.5	152.37	142.05	135.03	888.87
Total CEB GL's Thermal Generation			250.05	288.09	284.16	283.9	272.71	267.76	1646.67
Renewable energy	NCRE	GWh	64.20	48.20	59.20	64.20	61.20	63.20	360.20
Chunnakam	DCHU	GWh	0.51	0.51	0.51	0.51	0.51	0.51	3.05
Aggreko	DAGR	GWh	8.99	9.01	8.85	9.07	8.70	8.89	53.51
Northern Power	DNOR	GWh	8.99	9.01	8.85	9.07	8.71	8.89	53.52
Total Northern generation		GWh	18.49	18.53	18.21	18.65	17.92	18.28	110.07
CEB GL's Hydropower Generation		GWh	329.22	260.84	316.53	314.67	294.84	276.47	1792.57
Total Generation		GWh	957.97	964.15	943.75	966.24	920.18	945.47	5697.75
Coincident Peak Demand		MW	1925	1895	1940	1970	1987	2007	

Table 03: Details of Filed and adjusted capacity payments for Generation (Jul – Dec 2011)

Item \ Month	Unit	7	8	9	10	11	12
System Coincidental Peak demand	MW	1925	1895	1940	1970	1987	2007
Capacity Payment							
Plant \ Month	Unit	7	8	9	10	11	12
Mahaweli	LKR million	393.31	393.31	393.31	393.31	393.31	393.31
Laxapana	LKR million	225.23	225.23	225.23	225.23	225.23	225.23
Other Hydro	LKR million	171.38	171.38	171.38	171.38	171.38	171.38
GTSM	LKR million	36.52	36.52	36.52	36.52	36.52	36.52
DSP	LKR million	70.37	70.37	70.37	70.37	70.37	70.37
DSPX	LKR million	71.09	71.09	71.09	71.09	71.09	71.09
DLDL	LKR million	39.45	39.45	48.46	33.07	38.18	34.35
DAPL	LKR million	123.65	123.65	123.65	123.65	123.65	123.65
CCKP	LKR million	140.76	140.76	140.76	140.76	140.76	140.76
CAES	LKR million	252.02	252.02	252.02	261.43	261.43	261.43
DCPL	LKR million	66.72	71.31	64.41	66.72	59.81	71.31
DHOR	LKR million	38.31	38.31	38.31	38.31	38.31	38.31
DMAT	LKR million	32.52	32.52	32.52	32.52	32.52	32.52
DPUT	LKR million	99.45	99.45	99.45	99.45	99.45	99.45
DEMB	LKR million	116.08	116.08	116.08	116.08	116.08	116.08
CCKW	LKR million	607.34	607.34	587.75	607.34	587.75	607.34
CPUT	LKR million	66.45	66.45	66.45	66.45	66.45	66.45
RENEW	LKR million	0.00	0.00	0.00	0.00	0.00	0.00
GT7	LKR million	49.41	49.41	49.41	49.41	49.41	49.41
DCHU	LKR million	10.45	10.45	10.45	10.45	10.45	10.45
DAGG	LKR million	33.39	33.39	32.31	33.39	32.31	33.39
DNOR	LKR million	31.76	31.76	30.74	31.76	30.74	31.76
CTRC	LKR million						
COSB	LKR million						
TOTAL	LKR million	2675.665	2680.251	2660.670	2678.704	2655.196	2684.566
Depreciation Provision Excluded from CEB GL							
	LKR million	556.74	556.74	556.74	556.74	556.74	556.74
Return of Equity allowed for CEB GL							
	LKR million	111.35	111.35	111.35	111.35	111.35	111.35
Generation Capacity cost	LKR/MW	1,158,584.4	1,179,346.2	1,141,896.9	1,133,662.2	1,112,131.7	1,115,683.0

Table 04: Details of allowed Energy Cost of Generation July- Dec 2011

Plant \ Month	Unit	7	8	9	10	11	12
Mahaweli	GWh	329.22	260.84	316.53	314.67	294.84	276.47
	LKR/kWh						
GTSM	GWh	0.38	0.38	0.19	0.38	0.19	0.38
	LKR/kWh	153.54	153.54	269.75	153.54	269.75	153.54
DSP	GWh	34.15	34.15	33.05	28.93	33.05	30.13
	LKR/kWh	11.58	11.58	11.66	12.01	11.66	11.90
DSPX	GWh	42.18	42.18	40.82	42.18	40.82	42.18
	LKR/kWh	10.73	10.73	10.79	10.73	10.79	10.73
DLDL	GWh	14.23	14.23	17.48	11.93	13.77	12.39
	LKR/kWh	11.43	11.43	11.43	11.43	11.43	11.43
DAPL	GWh	30.99	26.99	25.99	26.99	25.99	28.99
	LKR/kWh	11.34	11.34	11.34	11.34	11.34	11.34
CCKP	GWh	17.60	51.20	51.60	55.04	51.60	55.04
	LKR/kWh	10.08	8.65	8.65	8.60	8.65	8.60
CAES	GWh	9.08	9.08	0.00	0.00	0.00	4.95
	LKR/kWh	23.08	23.08	0.00	0.00	0.00	23.08
DCPL	GWh	35.50	37.94	34.27	35.50	31.82	37.94
	LKR/kWh	14.35	14.35	14.35	14.35	14.35	14.35
DHOR	GWh	15.18	15.18	10.77	15.18	14.69	15.18
	LKR/kWh	14.49	14.49	14.49	14.49	14.49	14.49
DMAT	GWh	15.18	15.18	12.73	13.22	12.73	13.22
	LKR/kWh	14.63	14.63	14.63	14.63	14.63	14.63
DPUT	GWh	54.53	52.51	50.49	62.61	60.59	62.61
	LKR/kWh	13.55	13.55	13.55	13.55	13.55	13.55
DEMB	GWh	61.65	69.97	49.66	51.92	49.66	60.94
	LKR/kWh	14.44	14.44	14.44	14.44	14.44	14.44
CCKW	GWh	59.67	107.41	64.26	67.47	64.26	83.54
	LKR/kWh	14.57	14.31	14.29	14.13	14.29	14.30
CPUT	GWh	150.74	155.18	153.50	152.37	142.05	135.03
	LKR/kWh	6.09	6.08	6.08	6.08	6.09	6.10
RENEW	GWh	64.20	48.20	59.20	64.20	61.20	63.20
	LKR/kWh	12.53	13.10	11.97	12.44	10.95	11.18
GT7	GWh	5.00	5.00	5.00	5.00	5.00	5.00
	LKR/kWh	34.09	34.09	34.09	34.09	34.09	34.09
DCHU	GWh	0.51	0.51	0.51	0.51	0.51	0.51
	LKR/kWh	44.94	44.94	44.94	44.94	44.94	44.94
DAGG	GWh	8.99	9.01	8.85	9.07	8.70	8.89
	LKR/kWh	33.08	33.08	33.08	33.08	33.08	33.08
DNOR	GWh	8.99	9.01	8.85	9.07	8.71	8.89
	LKR/kWh	12.36	12.36	12.36	12.36	12.36	12.36
TOTAL generated energy	GWh	957.97	964.15	943.75	966.24	920.18	945.47

Energy

Month	Unit	7	8	9	10	11	12
TOTAL generated energy	GWh	957.97	964.15	943.75	966.24	920.18	945.47

Monthly Energy Cost	LKR million	7,580.30	8,450.72	7,209.13	7,578.73	7,212.22	7,935.05
Total Energy cost for six-months	LKR million	45,966.13					
Total energy dispatch for six-months	GWh	5,697.75					
Six-month average energy cost	LKR/kWh	8.07					

Above mentioned Generation Costs are based on the assumption of following fuel prices

Fuel	Unit	Cost
Coal	LKR / kg	15.70
Diesel	LKR / Ltr	76.00
Furnace Oil	LKR / Ltr	40.00
Heavy Fuel	LKR / Ltr	40.00
Furnace Oil (low Sulphur)	LKR / Ltr	52.00
Naphtha	LKR/ Ltr	60.00

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 05:

Table 05: 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 06: Monthly Energy Dispatches and Costs in the TOU Regime (July-Dec 2011)

Average Generation Energy cost in each month							
	Unit	7	8	9	10	11	12
Generation Energy cost	LKR/kWh	7.91	8.76	7.64	7.84	7.84	8.39

Month 7 - TOU tariffs				
Interval	Energy dispatched (GWh)	k Factor (#)	Adjusted k Factor (#)	Charge (LKR/kWh)
B1 (day)	544	1.00	0.99	07.86
B2 (peak)	217	1.30	1.29	10.22
B3 (off-peak)	196	0.70	0.70	05.50

Month 8 - TOU tariffs				
Interval	Energy dispatched (GWh)	k Factor (#)	Adjusted k Factor (#)	Charge (LKR/kWh)
B1 (day)	548	1.00	0.99	08.71
B2 (peak)	219	1.30	1.29	11.32
B3 (off-peak)	198	0.70	0.70	06.10

Month 9 - TOU tariffs				
Interval	Energy dispatched (GWh)	k Factor (#)	Adjusted k Factor (#)	Charge (LKR/kWh)
B1 (day)	536.0	1.00	0.99	7.59
B2 (peak)	214.9	1.30	1.29	9.87
B3 (off-peak)	193.0	0.70	0.70	5.31

Month 10 - TOU tariffs				
Interval	Energy dispatched (GWh)	k Factor (#)	Adjusted k Factor (#)	Charge (LKR/kWh)
B1 (day)	549	1.00	0.99	07.79
B2 (peak)	219	1.30	1.29	10.13
B3 (off-peak)	198	0.70	0.70	05.45

Month 11 - TOU tariffs				
Block	Energy dispatched (GWh)	k Factor (#)	Adjusted k Factor (#)	Charge (LKR/kWh)
B1 (day)	523	1.00	0.99	07.79
B2 (peak)	209	1.30	1.29	10.12
B3 (off-peak)	189	0.70	0.70	05.45

Month 12 - TOU tariffs				
Block	Energy dispatched (GWh)	k Factor (#)	Adjusted k Factor (#)	Charge (LKR/kWh)
B1 (day)	537	1.00	0.99	08.34
B2 (peak)	215	1.30	1.29	10.84
B3 (off-peak)	194	0.70	0.70	05.84

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

Capacity Charge

	Unit	Month					
		7	8	9	10	11	12
Capacity Charge							
Generation capacity	LKR/MW	1,158,584	1,179,346	1,141,897	1,133,662	1,112,132	1,115,683
Transmission	LKR/MW	307,939	312,814	305,558	300,905	298,331	295,358
Bulk Supply and Operations Business	LKR/MW	5,107	5,188	5,067	4,990	4,947	4,898
BST (C)	LKR/MW	1,471,630	1,497,348	1,452,523	1,439,557	1,415,410	1,415,939
BST (C) 6-Month Weighed average	LKR/MW. month	1,448,174					

Energy Charge

	Unit	Month					
		7	8	9	10	11	12

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	7.87	8.71	7.59	7.79	7.79	8.34
BST (E1)	LKR/kWh	8.07	8.94	7.79	8.00	7.99	8.56

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	10.22	11.32	9.87	10.13	10.12	10.84
BST (E2)	LKR/kWh	10.57	11.71	10.20	10.48	10.47	11.21

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	5.50	6.10	5.31	5.45	5.45	5.84
BST (E3)	LKR/kWh	5.61	6.21	5.41	5.56	5.55	5.95

Table 08: 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	LKR/kWh	8.11	0.58	0.12	8.81
BST peak (E2) 6-Month weighed average	LKR/kWh	10.65	0.58	0.12	11.36
BST off-peak (E3) 6-Month weighed average	LKR/kWh	5.59	0.58	0.12	6.30

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, and the approved BSTs are shown in Table 09.

The Transmission Licensee is hereby directed to invoice each Distribution Licensee at the rates shown in Table 09 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 09: 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 -year 2011	GWh	2,705	2,784	1,772	1,208	1,198	9,666.3
Total revenue based on approved customer tariffs -year 2011	LKR million	41,144	35,150	21,991	15,482	18,485	132,252.2
Coincident peak demand for purchases from Transmission, Jul-Dec 2011	MW	498	622	363	281	242	
Approved BST for payment on Coincident Maximum Demand Jul-Dec 2011	LKR/ MW. month	1,448,174	1,448,174	1,448,174	1,448,174	1,448,174	
Amount payable to Transmission on account of Demand, Jul-Dec 2011	LKR million	4,326	5,407	3,150	2,444	2,105	
Revenue to be recovered by Transmission through energy charges Jul-Dec 2011	LKR million	13,098	8,503	5,707	3,546	6,013	
Energy sold from Transmission at MV Jul-Dec 2011	GWh	1,519	1,644	1,009	713	661	5,545
Approved BST for energy in each TOU interval							
Day (0530-1830)	LKR/kWh	8.57	5.14	5.62	4.94	9.03	
Peak (1830-2230)	LKR/kWh	11.05	6.63	7.24	6.37	11.65	
Off Peak (2230-0530)	LKR/kWh	6.13	3.67	4.02	3.53	6.46	

Note: 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 July 2011 to Dec 2011, 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.

