

DECISION ON TRANSMISSION AND BULK SUPPLY TARIFFS

Effective from 1st July 2019

DECISION ON BULK SUPPLY TARIFFS- July- December 2019

In exercising the powers and functions vested with the Public Utilities Commission of Sri Lanka (Commission) under section 3 (d) of the Sri Lanka Electricity Act, No. 20 of 2009 (SLEA) 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, and in accordance with section 30 (2) (a) of SLEA, the Commission has approved a Tariff Methodology.

In accordance with the methodology, the tariffs levied by the transmission 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 20th of June 2013, issuing the decision document on electricity tariffs. The transmission and bulk sale tariffs were 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 2019, and hereby approved and requested the transmission licensee to implement the bulk supply tariffs effective from 1st of July 2019.

List of Acronyms

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
DL5	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	Gigawatt 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

Approved Distribution Variable Revenue Cap and Approved Retail Services Price Cap of each distribution licensee as per the *DECISION ON TRANSMISSION AND BULK SUPPLY TARIFFS effective from 1st January 2019* are shown in Table 1 below.

Table 1: Approved Distribution Variable Revenue Cap and Approved Retail Services Price Cap for the year 2019

	Unit	DL1	DL2	DL3	DL4	DL5
(Revised) Approved Distribution Variable Revenue Cap	LKR million	12,487.5	16,859.8	9,262.3	8,613.9	4,590.5
Approved Retail Services price cap	LKR/customer	555.67	514.54	635.68	658.86	1,056.21

The Transmission and BSOB Revenue Caps mentioned in the *DECISION ON TRANSMISSION AND BULK SUPPLY TARIFFS effective from 1st January 2019* are shown in the Table 2 below.

Table 2: Transmission and BSOB Revenue Cap for the year 2019

Approved Revenue Cap	Unit	TL
Transmission Revenue Cap	LKR million	11,101.7
BSOB Revenue Cap	LKR million	1,443.0
Total allowed revenue	LKR million	12,544.8

2 APPROVED LOSSES FOR THE PERIOD

Approved network loss targets as per the *Revision of Network Loss Targets, effective from 24th May 2016*, are shown in Table 3 below.

Table 3- Approved Network Loss For 2019

Licensee	DL 1	DL 2	DL 3	DL 4	DL 5	TL
Loss target for 2019	6.18%	6.74%	6.78%	7.17%	4.23%	1.80%

3 GENERATION COSTS

The approved generation dispatch for July- December 2019 is shown in Table 4 below.

Table 4- Dispatch Approved by the Commission for July- December 2019

Plant\Month	Code	Unit	Month of the year 2019						Total
			Jul	Aug	Sep	Oct	Nov	Dec	
Independent Power Producers (IPPs)									
Sojitz Kelanitissa – 165 MW	Sojitz	GWh	109.2	102.4	77.6	93.3	99.8	109.2	591.4
ACE - Matara - 20 MW	DMAT	GWh	12.7	9.2	6.9	6.8	8.1	10.5	54.2
ASIA Power - 51 MW	DAPL	GWh	26.3	17.8	2.8	2.9	9.4	19.4	78.7
Kerawalapitiya – 270 MW	CCKW	GWh	89.8	123.0	52.6	27.9	119.0	173.9	586.1
ACE - Embilipitiya -99WW	DEMB	GWh	55.6	43.2	33.7	33.4	38.3	45.9	250.1
TOTAL IPP		GWh	293.7	295.5	173.8	164.2	274.5	358.8	1,560.5
CEB GL's Thermal Generation									
Sapu Old 4 x 18 MW	DSP1	GWh	30.4	30.4	29.4	30.4	29.4	30.4	180.2
Sapu Ext. 8 x 9 MW	DSP2	GWh	38.2	38.2	36.8	38.0	36.9	38.2	226.3
KPS GT 1 x 115 MW	GT07	GWh	56.8	42.9	33.6	21.6	10.7	48.6	214.3
KPS GT 5 x 17 MW	GT16	GWh	19.4	7.7	0.0	1.4	2.6	13.5	44.5
KPS Combined – 165 MW	CCKP	GWh	25.7	64.4	84.8	90.6	89.6	103.1	458.3
Coal – Puttlam 300 MW	CPUT	GWh	446.4	446.4	432.0	425.8	312.4	322.9	2,385.9
Total CEB GL's Thermal Generation		GWh	616.9	629.9	616.6	607.8	481.7	556.6	3,509.4
Rooftop Solar PV		GWh	32.2	10.7	0.0	0.0	0.0	21.5	64.4
Self generation		GWh	82.3	10.7	0.0	1.5	3.0	21.7	119.2
Renewable energy	NCRE	GWh	193.4	209.5	192.9	164.0	145.1	142.2	1,047.0
Total Renewable energy		GWh	307.9	230.8	192.9	165.5	148.1	185.4	1,230.6
Chunnakam									
Chunnakam	DCHU	GWh	0.2	0.2	0.2	0.2	0.2	0.2	1.2
New Chunnakam	DNCHU	GWh	15.2	12.5	4.9	8.1	8.9	15.2	64.6
Total Northern generation		GWh	15.4	12.7	5.1	8.3	9.1	15.4	65.8
CEB GL's Hydropower Generation									
		GWh	211.8	280.5	415.7	482.6	443.5	288.4	2,122.5
Total Generation		GWh	1,445.6	1,449.5	1,404.0	1,428.3	1,356.9	1,404.6	8,488.9

Forecast system coincident peak generation demand and the approved monthly capacity costs of each generation plant/ hydro scheme are shown in Table 5 and Table 6 respectively.

Table 5- Forecast system coincident peak demand for July- December 2019

Item\Month	Unit	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
System Coincidental Peak demand	MW	2,291	2,454	2,521	2,543	2,516	2,455

Table 6- Approved Capacity payments to GL by TL for July- December 2019

Plant\Month	Unit	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
Mahaweli	LKR Million	674.8	674.8	674.8	674.8	674.8	674.8
Laxapana	LKR Million	274.5	274.5	274.5	274.5	274.5	274.5
Other Hydro	LKR Million	249.7	249.7	249.7	249.7	249.7	249.7
GTSM	LKR Million	107.0	107.0	127.8	107.0	107.0	107.0
DSP	LKR Million	195.1	195.1	195.1	195.1	195.1	195.1
DSPX	LKR Million	212.9	212.9	212.9	212.9	212.9	212.9
DAPL	LKR Million	64.1	64.1	64.1	64.1	64.1	64.1
CCKP	LKR Million	442.3	442.3	442.3	442.3	442.3	442.3
Sojitz	LKR Million	50.7	50.7	49.1	50.7	49.1	50.7
DMAT*	LKR Million	-	-	-	-	-	-
DEMB*	LKR Million	-	-	-	-	-	-
BARGE*	LKR Million	-	-	-	-	-	-
CCKW	LKR Million	855.9	855.9	828.3	855.9	828.3	855.9
CPUT	LKR Million	1,456.2	1,456.2	1,456.2	1,456.2	1,456.2	1,456.2
RENEW	LKR Million	-	-	-	-	-	-
GT7	LKR Million	181.0	181.0	181.0	181.0	181.0	181.0
DCHU	LKR Million	9.5	9.5	9.5	9.5	9.5	9.5
DNOR	LKR Million	76.3	78.8	76.3	78.8	78.8	76.3
DNCHU	LKR Million	53.9	53.9	53.9	53.9	53.9	53.9
50MW Thulhiriya*	LKR Million	-	-	-	-	-	-
50MW Kolonnawa*	LKR Million	-	-	-	-	-	-
50MW Mathugama*	LKR Million	-	-	-	-	-	-
Aggreko Galle*	LKR Million	-	-	-	-	-	-
Aggreko Pallekale*	LKR Million	-	-	-	-	-	-
Vpower Hambantota*	LKR Million	-	-	-	-	-	-
Vpower Horana*	LKR Million	-	-	-	-	-	-
Altaaqa Mahiyanganaya*	LKR Million	-	-	-	-	-	-
Altaaqa Polonnaruwa*	LKR Million	-	-	-	-	-	-
TOTAL	LKR Million	4,904.0	4,906.5	4,895.5	4,906.5	4,877.3	4,904.0
Depreciation Provision	LKR Million	1,159.8	1,159.8	1,159.8	1,159.8	1,159.8	1,159.8
Excluded from CEB GL*							
Return of Equity	LKR Million	232.0	232.0	232.0	232.0	232.0	232.0
allowed for CEB GL*							

Notes:

- The Capacity costs of Ace Matara and Ace Embilipitiya were removed as their licenses have been expired. Further the Capacity cost of Barge, 50MW Diesel power (Thulhiriya, Kolonnawa, and Mathugama), Aggreko Galle, Aggreko Pallekale, Vpower Hambantota, Vpower Horana, Altaaqa Mahiyanganaya, Altaaqa Polonnaruwa can't be allowed as the Licenses have not been issued.
- Though Northern Power Pvt Ltd power plant is not operating as per a Court order, capacity cost was allowed.
- Depreciation on CEB generation plants was removed and a Return on Equity was allowed.

Forecast monthly generation from each generation plant along with approved average cost LKR/kWh is shown in Table 7 below.

Table 7- Approved Energy Payments to GL by TL for July- December 2019

Plant\Month	Unit	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
Mahaweli, Laxapana and Other Hydro	GWh	211.8	280.5	415.7	482.6	443.5	288.4
	LKR /kWh	-	-	-	-	-	-
GTSM	GWh	19.4	7.7	-	1.4	2.6	13.5
	LKR /kWh	51.01	52.88	-	67.14	58.97	51.55
DSP	GWh	30.4	30.4	29.4	30.4	29.4	30.4
	LKR /kWh	23.58	23.62	23.67	23.62	23.67	23.62
DSPX	GWh	38.2	38.2	36.8	38.0	36.9	38.2
	LKR /kWh	22.44	22.44	22.49	22.45	22.49	22.44
DAPL	GWh	26.3	17.8	2.8	2.9	9.4	19.4
	LKR /kWh	25.40	25.90	27.94	27.93	26.17	25.79
CCKP	GWh	25.7	64.4	84.8	90.6	89.6	103.1
	LKR /kWh	21.38	20.54	20.80	20.87	20.86	20.98
Sojitz	GWh	109.2	102.4	77.6	93.3	99.8	109.2
	LKR /kWh	22.60	22.57	22.84	22.59	22.57	22.60
DMAT*	GWh	12.7	9.2	6.9	6.8	8.1	10.5
	LKR /kWh	18.07	17.52	16.24	15.98	17.86	19.62
DEMB*	GWh	55.6	43.2	33.7	33.4	38.3	45.9
	LKR /kWh	18.07	17.52	16.24	15.98	17.86	19.62
BARGE*	GWh	-	-	-	-	-	-
	LKR /kWh	-	-	-	-	-	-
CCKW	GWh	89.8	123.0	52.6	27.9	119.0	173.9
	LKR /kWh	26.02	25.29	27.27	30.15	25.15	24.76
CPUT	GWh	446.4	446.4	432.0	425.8	312.4	322.9
	LKR /kWh	9.80	9.80	9.82	9.83	10.02	10.00
RENEW	GWh	193.4	209.5	192.9	164.0	145.1	142.2
	LKR /kWh	18.98	19.73	20.63	20.37	18.94	18.73
GT7	GWh	56.8	42.9	33.6	21.6	10.7	48.6
	LKR /kWh	38.09	38.33	38.61	39.30	41.29	38.22
DCHU	GWh	0.2	0.2	0.2	0.2	0.2	0.2
	LKR /kWh	34.58	34.58	34.58	34.58	34.58	34.58
DNOR	GWh	-	-	-	-	-	-
	LKR /kWh	-	-	-	-	-	-
DNCHU	GWh	15.2	12.5	4.9	8.1	8.9	15.2
	LKR /kWh	23.89	24.26	27.66	25.46	25.16	23.89
50MW Thulhiriya*	GWh	-	-	-	-	-	-
	LKR /kWh	-	-	-	-	-	-
50MW Kolonnawa*	GWh	-	-	-	-	-	-
	LKR /kWh	-	-	-	-	-	-
50MW Mathugama*	GWh	-	-	-	-	-	-
	LKR /kWh	-	-	-	-	-	-
Aggreko Galle*	GWh	-	-	-	-	-	-

	LKR /kWh	-	-	-	-	-	-
Aggreko Pallekale*	GWh	-	-	-	-	-	-
	LKR /kWh	-	-	-	-	-	-
Vpower Hambantota*	GWh	-	-	-	-	-	-
	LKR /kWh	-	-	-	-	-	-
Vpower Horana*	GWh	-	-	-	-	-	-
	LKR /kWh	-	-	-	-	-	-
Altaaqa Mahiyanganaya*	GWh	-	-	-	-	-	-
	LKR /kWh	-	-	-	-	-	-
Altaaqa Polonnaruwa*	GWh	-	-	-	-	-	-
	LKR /kWh	-	-	-	-	-	-
Rooftop Solar PV	GWh	32.2	10.7	-	-	-	21.5
	LKR /kWh	22.00	22.00	22.00	22.00	22.00	22.00
Self generation	GWh	82.3	10.7	-	1.5	3.0	21.7
	LKR /kWh	36.00	36.00	36.00	36.00	36.00	36.00

Monthly Energy Cost	LKR Million	24,072.4	21,185.4	16,895.4	15,863.9	16,528.2	22,182.8
Total Energy cost for six-months	LKR Million	116,728.0					
Total energy dispatch for six-months	GWh	8,488.9					
Six-month average energy cost	LKR/kWh	14.00					

Notes:

- Due to the expiration of the licenses, only the weighted average energy costs of the thermal power plants were allowed as the energy costs of Ace Matara and Embilipitiya.
- Due to the absence of the license, energy generation of Barge, 50MW Diesel power (Thulhiriya, Kolonnawa, and Mathugama), Aggreko Galle, Aggreko Pallekale, Vpower Hambantota, Vpower Horana, Altaaqa Mahiyanganaya, Altaaqa Polonnaruwa were removed and added to Hydro.

4 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 pricing	Factor	Value
0530-1830	k1	1
1830-2230	k2	1.3
2230-0530	k3	0.6

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 2019

Average Generation Energy cost							
	Unit	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
Generation Energy cost	LKR /kWh	16.65	14.62	12.03	11.11	12.18	15.79

Month 1 - Block tariffs				
Block	Energy generated (GWh)	Block Factor (#)	Adjusted Factor (#)	Charge (LKR/kWh)
B1 (Day)	821.1	1	1.01	16.89
B2 (Peak)	328.2	1.3	1.32	21.95
B3 (Off peak)	296.3	0.6	0.61	10.13

Month 2 - Block tariffs				
Block	Energy generated (GWh)	Block Factor (#)	Adjusted Factor (#)	Charge (LKR/kWh)
B1 (Day)	823.3	1	1.01	14.82
B2 (Peak)	329.0	1.3	1.32	19.27
B3 (Off peak)	297.1	0.6	0.61	8.89

Month 3 - Block tariffs				
Block	Energy generated (GWh)	Block Factor (#)	Adjusted Factor (#)	Charge (LKR/kWh)
B1 (Day)	797.5	1	1.01	12.20
B2 (Peak)	318.7	1.3	1.32	15.86
B3 (Off peak)	287.8	0.6	0.61	7.32

Month 4 - Block tariffs				
Block	Energy generated (GWh)	Block Factor (#)	Adjusted Factor (#)	Charge (LKR/kWh)
B1 (Day)	811.3	1	1.01	11.26
B2 (Peak)	324.2	1.3	1.32	14.64
B3 (Off peak)	292.8	0.6	0.61	6.76

Month 5- Block tariffs				
Block	Energy generated (GWh)	Block Factor (#)	Adjusted Factor (#)	Charge (LKR/kWh)
B1 (Day)	770.7	1	1.01	12.35
B2 (Peak)	308.0	1.3	1.32	16.06
B3 (Off peak)	278.2	0.6	0.61	7.41

Month 6 - Block tariffs				
Block	Energy generated (GWh)	Block Factor (#)	Adjusted Factor (#)	Charge (LKR/kWh)
B1 (Day)	797.8	1	1.01	16.02
B2 (Peak)	318.8	1.3	1.32	20.82
B3 (Off peak)	287.9	0.6	0.61	9.61

5 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 2019

Capacity Charge							
	Unit	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
Generation capacity	LKR /MW	1,735,261.66	1,621,073.49	1,574,154.86	1,564,409.63	1,569,971.12	1,619,327.48
Transmission	LKR /MW	403,744.32	376,935.09	367,045.11	363,759.50	367,755.72	376,769.85
Bulk Supply and Operation Business	LKR /MW	347,056.08	324,398.10	314,414.66	310,129.63	318,016.63	364,423.44
BST (C)	LKR /MW	2,486,062.07	2,322,406.68	2,255,614.63	2,238,298.77	2,255,743.47	2,360,520.78
BST (C)6-Month Weighted average	LKR/MW	2,316,901.34					

Energy Charge

Month	Unit	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19

Interval 1 (day)

Transmission Loss Factor B1	%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%
Generation energy Cost B1	LKR /kWh	16.89	14.82	12.20	11.26	12.35	16.02
BST (E1)	LKR/kWh	17.20	15.10	12.43	11.47	12.58	16.31

Interval 2 (peak)

Transmission Loss Factor B2	%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
Generation energy Cost B2	LKR /kWh	21.95	19.27	15.86	14.64	16.06	20.82
BST (E2)	LKR/kWh	22.47	19.72	16.24	14.99	16.44	21.31

Interval 3 (off peak)

Transmission Loss Factor B3	%	1.31%	1.31%	1.31%	1.31%	1.31%	1.31%
Generation energy Cost B3	LKR /kWh	10.13	8.89	7.32	6.76	7.41	9.61
BST (E3)	LKR/kWh	10.26	9.01	7.42	6.85	7.51	9.74

Table 11- Approved Six-month Average Bulk Supply Tariffs for July- December 2019

	Unit	BST (E)
BST day (E1)		
6-Month weighted average	LKR/kWh	14.20
BST peak (E2)		
6-Month weighted average	LKR/kWh	18.56
BST off-peak (E3)		
6-Month weighted average	LKR/kWh	8.48

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.

6 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 9.1 of the Decision on Revenue Caps and Bulk Supply Tariffs 2016-2020.

Table 12- 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 Region 5	Total
Sales to end-use customers	GWh	4,112	4,643	2,587	2,002	1,628	14,971
Revenue based on approved customer tariffs (Jan-Dec)	LKR Million	75,969.9	72,725.4	45,573.1	36,947.7	32,650.3	263,866.5
Coincident peak demand for purchases from Transmission	MW	653	714	480	344	272	-
Approved BST for payment on Coincident Maximum Demand	LKR/MW/month	2,316,901.34	2,316,901.34	2,316,901.34	2,316,901.34	2,316,901.34	-
Amount payable to Transmission on account of Demand (July- December)	LKR Million	9,076.7	9,923.5	6,674.7	4,784.8	3,785.8	34,245.5
Allowed losses (July-December)		6.18%	6.74%	6.78%	7.17%	4.23%	-
Revenue to be recovered by Transmission through energy charges (July-December)	LKR Million	22,395.3	17,648.1	11,198.2	9,141.3	10,047.7	70,430.5
Energy sold from Transmission at MV	GWh	2,240	2,540	1,412	1,095	886	8,173
Approved BST for energy in each TOU interval							
Peak (1830-2230)	LKR/kWh	13.25	9.21	10.51	11.06	15.03	-
Off Peak (2230-0530)	LKR/kWh	6.05	4.21	4.80	5.05	6.87	-
Day (0530-1830)	LKR/kWh	10.14	7.05	8.04	8.46	11.50	-