DECISION ON TRANSMISSION AND BULK SUPPLY TARIFFS

Effective from 1st July 2022

DECISION ON BULK SUPPLY TARIFFS- July- December 2022

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 1st of January 2021, issuing the Decision on Revenue Caps and Bulk Supply Tariffs (2021-2023). 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 2022, and hereby approved and requested the transmission licensee to implement the bulk supply tariffs effective from 1st of July 2022.

BSOB Bull	< Supply and Operations Business
BST Bull	< Supply Tariffs
-	ital Expenditure
,	Ion Electricity Board
	ribution Licensee: Ceylon Electricity Board and Lanka ctricity Company (Pvt) Ltd
	ribution and Supply Licensee for CEB Distribution ion 1 holding license number EL/D/09-003
	ribution and Supply Licensee for CEB Distribution ion 2 holding license number EL/D/09-004
DIS	ribution and Supply Licensee for CEB Distribution ion 3 holding license number EL/D/09-005
DI 4	ribution and Supply Licensee for CEB Distribution ion 4 holding license number EL/D/09-006
DIS	ribution and Supply Licensee LECO holding license nber EL/D/09-052
	l Supply Agreement
CEB GL CEB	Generation Licensee holding License number
GWh Giga	awatt hour
kVA kilo	volt ampere
kW kilo	watt
kWh kilo	watt hour
LECO Lan	ka Electricity Company (Pvt) Ltd.
LKR Sri L	_anka Rupee
LV Low	/ Voltage
MV Me	dium Voltage
MWh Me	gawatt hour
NCRE Nor	n-Conventional Renewable Energy
0 & M Ope	erations & Maintenance
OPEX Ope	erating Expenditure
PPA Pow	ver Purchase Agreement
Single Buyer A fu	inction of the BSOB
SPPs Sma	all Power Producers
T&D Trai	nsmission and Distribution
11	nsmission and Bulk Supply Licensee holding License nber EL/T/09-002
TOU Tim	e of Use
WIP Wo	rk-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 Revenue Caps and Bulk Supply Tariffs 2021-2023 are shown in Table 1 below.

Table 1: Approved Distribution Variable Revenue Cap and Approved Retail Services Price Cap for the year 2022

	Unit	DL1	DL2	DL3	DL4	DL5
Approved Distribution Variable Revenue Cap	LKR million	27,479.9	23,106.0	16,177.4	12,205.8	7,787.8
Approved Retail Services price cap	LKR/customer	2,053.14	2,569.81	1,718.85	1,602.60	2,345.16

The Transmission and BSOB Revenue Caps mentioned in the Decision on Revenue Caps and Bulk Supply Tariffs 2021-2023 are shown in the Table 2 below.

Table 2: Transmission and BSOB Revenue Cap for the year 2022

Approved Revenue Cap	Unit	TL
Transmission Revenue Cap	LKR million	19,633.2
BSOB Revenue Cap	LKR million	3,302.3
Total allowed revenue	LKR million	22,935.5

2 **APPROVED LOSSES FOR THE PERIOD**

The approved network losses for 2022 are shown in Table 3 below.

Table 3- Appro	oved Network I	Loss For 2022				
Licensee	DL 1	DL 2	DL 3	DL 4	DL 5	TL
Loss target for 2021	6.45%	9.50%	8.05%	7.26%	3.99%	2.13%

3 GENERATION COSTS

The approved generation dispatch for July- December 2022 is shown in Table 4 below.

				М	onth of th	e year 202	22		
Plant\Month	Code	Unit	Jul	Aug	Sep	Oct	Nov	Dec	Total
<u>Independent Power</u> Producers (IPPs)									
Sojitz Kelanitissa – 165 MW	Sojitz	GWh	97.0	101.4	83.4	95.4	50.0	96.6	523.8
Kerawalapitiya – 270 MW	CCKW	GWh	170.8	170.8	165.2	170.7	165.2	85.0	927.7
TOTAL IPP		GWh	267.8	272.1	248.6	266.1	215.2	181.7	1,451.6
	-					-	-		-
CEB GL's Thermal Generation									
Sapu Old 4 x 18 MW	DSP1	GWh	30.4	30.4	29.4	29.8	28.8	29.8	178.6
Sapu Ext. 8 x 9 MW	DSP2	GWh	38.2	38.2	36.9	38.2	36.9	38.2	226.5
KPS GT 1 x 115 MW	GT07	GWh	26.2	16.2	8.0	26.1	10.4	22.1	109.2
KPS GT 5 x 17 MW	GT16	GWh	2.8	2.3	3.3	7.2	3.0	6.2	24.8
KPS Combined – 165 MW	ССКР	GWh	89.4	76.5	74.9	25.8	72.0	78.0	416.6
Coal – Puttlam 300 MW	CPUT	GWh	354.4	444.8	342.9	354.4	430.4	531.5	2,458.3
Total CEB GL's Thermal Generation		GWh	541.4	608.4	495.4	481.5	581.5	705.8	3,414.0
Chunnakam	DCHU	GWh	0.20	0.20	0.2	0.2	0.2	0.2	1.2
Total Northern generation	Deno	GWh	0.20	0.20	0.2	0.2	0.2	0.2	1.2
CEB GL's Hydropower			491.9	424.8	495.9	510.6	432.1	374.5	2,729.8
Generation		GWh	49119	12110	49519	51010	45211	57415	2,72510
Rooftop Solar PV		GWh	36.8	36.4	37.6	35.2	30.7	31.5	208.2
Renewable energy	NCRE	GWh	188.6	187.5	176.5	175.6	152.7	139.5	1,020.3
Total Renewable energy	NCILL	GWh	225.4	223.9	214.1	210.8	183.4	171	1,228.5
Self-generation		GWh	6.7	5.9	14.1	28.5	14.9	32.7	102.8
Total Generation		GWh	1,533.4	1,535.3	1,468.3	1,497.7	1,427.3	1,465.9	8,927.9

 Table 4- Dispatch Approved by the Commission for July- December 2022

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 2022

Item\Month	Unit	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
System Coincidental Peak demand	MW	2,708	2,714	2,689	2,663	2,653	2,672

Plant\Month	Unit	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Mahaweli	LKR Million	855.0	855.0	855.0	855.0	855.0	855.0
Laxapana	LKR Million	483.8	483.8	483.8	483.8	483.8	483.8
Other Hydro	LKR Million	320.0	320.0	320.0	320.0	320.0	320.0
Mannar Wind*	LKR Million	0.0	0.0	0.0	0.0	0.0	0.0
GTSM	LKR Million	62.9	62.9	62.9	62.9	62.9	62.9
DSP	LKR Million	111.3	111.3	111.3	111.3	111.3	111.3
DSPX	LKR Million	114.4	114.4	114.4	114.4	114.4	114.4
ССКР	LKR Million	132.5	132.5	132.5	132.5	132.5	132.5
Sojitz	LKR Million	118.4	118.4	114.6	118.4	114.6	118.4
BARGE*	LKR Million	-	-	-	-	-	-
CCKW	LKR Million	1,110.1	1,110.1	1,074.3	1,110.1	1,074.3	1,110.1
CPUT	LKR Million	1,655.2	1,655.2	1,655.2	1,655.2	1,655.2	1,655.2
RENW	LKR Million	-	-	-	-	-	-
GT7	LKR Million	106.3	106.3	106.3	106.3	106.3	106.3
DCHU	LKR Million	9.5	9.5	9.5	9.5	9.5	9.5
DNCHU*	LKR Million	-	-	-	-	-	-
Thulhiriya (1MW×10) *	LKR Million	-	-	-	-	-	-
Kolonnawa (1MW×20) *	LKR Million	-	-	-	-	-	-
Mathugama (1MW×20) *	LKR Million	-	-	-	-	-	-
TOTAL	LKR Million	5,079.4	5,079.4	5,039.8	5,079.4	5,039.8	5,079.4
Depreciation provision excluded from CEB GL*	LKR Million	1,159.8	1,159.8	1,159.8	1,159.8	1,159.8	1,159.8
Return of Equity allowed for CEB GL*	LKR Million	232.0	232.0	232.0	232.0	232.0	232.0

Table 6- Approved	Capacity	payments i	to GL b	v TL for	Julv-	December 2022

	Unit	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Generation Capacity cost	LKR /MW	1,532,925.86	1,529,564.02	1,529,454.12	1,559,168.03	1,549,990.41	1,553,947.26

* Notes:

- The Capacity cost of ACE Embilipitiya, ACE Matara, Mannar wind, Barge, 50MW Diesel power (Thulhiriya, Kolonnawa, and Mathugama) and Uthurujanani is not allowed as the licenses have not been issued.
- 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.

Plant\Month	Unit	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Lluden	GWh	491.9	424.8	495.9	510.6	432.1	374.5
Hydro	LKR /kWh	-	-	-	-	-	-
	GWh	-	-	-	-	-	-
Mannar Wind*	LKR /kWh	-	-	-	-	-	-
07014	GWh	2.8	2.3	3.3	7.2	3.0	6.2
GTSM	LKR /kWh	225.51	229.70	218.15	210.19	219.88	211.26
	GWh	30.4	30.4	29.4	29.8	28.8	29.8
DSP	LKR /kWh	107.37	107.37	107.72	107.56	107.91	107.55
	GWh	38.2	38.2	36.9	38.2	36.9	38.2
DSPX	LKR /kWh	98.38	98.38	98.64	98.38	98.64	98.38
	GWh	89.4	76.5	74.9	25.8	72.0	78.0
ССКР	LKR /kWh	58.66	52.08	50.90	48.56	49.25	52.81
	GWh	97.0	101.4	83.4	95.4	50.0	96.6
Sojitz	LKR /kWh	96.27	96.05	94.61	93.87	94.47	93.61
	GWh	-	-	_	-	_	-
BARGE *	LKR /kWh	-	-	-	-	-	-
	GWh	170.8	170.8	165.2	170.7	165.2	85.0
CCKW	LKR /kWh	76.05	76.12	76.16	76.05	76.08	76.37
	GWh	354.4	444.8	342.9	354.4	430.4	531.5
CPUT	LKR /kWh	18.89	18.62	19.24	28.18	27.99	27.88
	GWh	188.6	187.5	176.5	175.6	152.7	139.5
RENW	LKR /kWh	16.48	16.65	16.68	16.62	16.27	16.50
	, GWh	26.2	16.2	8.0	26.1	10.4	22.1
GT7	LKR /kWh	161.41	163.72	166.31	157.84	163.47	158.51
	, GWh	0.20	0.20	0.2	0.2	0.2	0.2
DCHU	LKR /kWh	141.30	141.30	138.26	138.26	138.26	138.26
	GWh	_	_	_		_	_
DNCHU*	LKR /kWh	-				_	_
Thulhiriya	GWh	-	_	_	_	_	_
Thulhiriya (1MW×10)*	LKR /kWh	-	-	-	-	-	_
Kolonnawa	, GWh	-	-	-	-	-	-
(1MW×20)*	LKR /kWh	-				_	_
Mathugana	GWh	-				_	_
Mathugama (1MW×20)*	LKR /kWh		_	_		_	_
	GWh	36.8	36.4	37.6	35.2	30.7	31.5
Rooftop Solar PV	LKR /kWh	22.00	22.00	22.00	22.00	22.00	22.00
	GWh	6.7	5.9	14.1	28.5	14.9	32.7
Self generation	LKR /kWh	42.00	42.00	42.00	42.00	42.00	42.00

 Table 7- Approved Energy Payments to GL by TL for July - December 2022

TOTAL generated energy GWh 1,533.4 1,535.1 1,468.3 1,497.7 1,427.4 1,466.1

Monthly Energy Cost	LKR Million	50,376	49,383	44,139	50,700	45,815	50,666
Total Energy cost for six- months	LKR Million	291,079.6					
Total energy dispatch for six- months	GWh	8,928.0					
Six-month average energy cost	LKR/kWh	33.31					

* Notes:

• Due to the absence of the licenses, energy generation of ACE Embilipitiya, ACE Matara Mannar wind, Barge, 50MW Diesel power (Thulhiriya, Kolonnawa, and Mathugama) and Uthurujanani 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							

Table 8- Approved Peak Adjustment Factors

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, weekends, and holidays.

 Table 9- Monthly Energy Dispatches and Costs in the TOU Regime for July- December 2022

Average Generation Energy cost										
	Unit	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22			
Generation energy cost	LKR /kWh	32.85	32.17	30.06	33.85	32.10	34.56			

Month 1 - Block tariffs										
Block	Energy generated	Block Factor	Adjusted Factor	Charge						
	(GWh)	(#)	(#)	(LKR/kWh)						
B1 (Day)	889	1	1.03	33.87						
B2 (Peak)	302	1.3	1.34	44.03						
B3 (Off peak)	342	0.6	0.62	20.32						

Month 2 - Block tariffs											
Block	Energy generated	Block Factor	Adjusted Factor	Charge							
	(GWh)	(#)	(#)	(LKR/kWh)							
B1 (Day)	890	1	1.03	33.17							
B2 (Peak)	302	1.3	1.34	43.12							
B3 (Off peak)	342	0.6	0.62	19.90							

Month 3 - Block tariffs											
Block	Energy generated Factor		Adjusted Factor	Charge							
	(GWh)	(#)	(#)	(LKR/kWh)							
B1 (Day)	852	1.00	1.03	30.99							
B2 (Peak)	289	1.30	1.34	40.29							
B3 (Off peak)	327	0.60	0.62	18.60							

Month 4 - Block tariffs										
Block	Energy generated	Block Factor	Adjusted Factor	Charge						
	(GWh)	(#)	(#)	(LKR/kWh)						
B1 (Day)	869	1	1.03	34.90						
B2 (Peak)	295	1.3	1.34	45.37						
B3 (Off peak)	334	0.6	0.62	20.94						

Month 5- Block tariffs											
Block	Energy generated	Block Factor	Adjusted Factor	Charge							
	(GWh)	(#)	(#)	(LKR/kWh)							
B1 (Day)	828	1	1.03	33.09							
B2 (Peak)	281	1.3	1.34	43.02							
B3 (Off peak)	318	0.6	0.62	19.86							

Month 6 - Block tariffs										
Block	Energy generated	Block Factor	Adjusted Factor	Charge						
	(GWh)	(#)	(#)	(LKR/kWh)						
B1 (Day)	850	1	1.03	35.63						
B2 (Peak)	289	1.3	1.34	46.32						
B3 (Off peak)	327	0.6	0.62	21.38						

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.

Capacity Cha	Capacity Charge												
	Unit	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22						
Generation capacity	LKR /MW	1,532,925.86	1,529,564.02	1,529,454.12	1,559,168.03	1,549,990.41	1,553,947.26						
Transmission	LKR /MW	604,106.97	602,782.11	608,547.43	614,448.68	616,718.51	612,391.24						
Bulk Supply and Operation Business	LKR /MW	1,038,531.75	1,036,254.16	1,046,165.43	1,056,310.38	1,060,212.50	1,052,773.40						
BST (C)	LKR /MW	3,175,564.58	3,168,600.30	3,184,166.97	3,229,927.09	3,226,921.42	3,219,111.89						
BST (C)6- Month Weighted average	LKR/MW	3,200,509.08				-							

Table 10- Combined Transfer Price from TL to DLs for July- December 2022

Energy Charge

Month Un	: Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
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Interval 1 (day)

Transmission Loss Factor B1	%	2.19%	2.19%	2.19%	2.19%	2.19%	2.19%
Generation energy Cost B1	LKR /kWh	33.87	33.17	30.99	34.90	33.09	35.63
BST (E1)	LKR/kWh	34.61	33.89	31.67	35.67	33.82	36.41

Interval 2 (peak)

Transmission Loss Factor B2	%	2.79%	2.79%	2.79%	2.79%	2.79%	2.79%
Generation energy Cost B2	LKR /kWh	44.03	43.12	40.29	45.37	43.02	46.32
BST (E2)	LKR/kWh	45.26	44.32	41.42	46.64	44.22	47.62

Interval 3 (off peak)

Transmission Loss Factor B3	%	1.55%	1.55%	1.55%	1.55%	1.55%	1.55%
Generation energy Cost B3	LKR /kWh	20.32	19.90	18.60	20.94	19.86	21.38
BST (E3)	LKR/kWh	20.64	20.21	18.88	21.27	20.16	21.71

	Unit	BST (E)
BST day (E1) 6-Month weighted average	LKR/kWh	34.35
BST peak (E2) 6-Month weighted average	LKR/kWh	44.92
BST off-peak (E3) 6-Month weighted average	LKR/kWh	20.48

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 11 of the Decision on Revenue Caps and Bulk Supply Tariffs 2021-2023.

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	4,277	4,745	2,626	2,043	1,740	15,431
Revenue based on approved customer tariffs (Jan-Dec)	LKR Million	108,615	105,541	61,324	47,048	45,476	368,004
Coincident peak demand for purchases from Transmission	MW	719	787	529	379	300	-
Approved BST for payment on Coincident Maximum Demand	LKR/MW/ month	3,200,509.08	3,200,509.08	3,200,509.08	3,200,509.08	3,200,509.08	-
Amount payable to Transmission on account of	LKR Million	13,814.8	15,103.5	10,159.0	7,282.4	5,762.0	52,121.7

Table 12- Approved BST from Transmission to each Distribution Licensee

Demand (July-								
December)								
Allowed losses		6.45%	9.50%	8.05%	7.26%	3.99%	-	
Revenue to be recovered by Transmission through energy charges (July- December)	LKR Million	36,288.1	34,603.5	19,005.2	14,852.6	17,222.7	121,972.1	
Energy sold from Transmission at MV	GWh	2,454	2,648	1,612	1,142	950	8,807	
Approved BST for energy in each TOU interval								
Peak (1830- 2230)	LKR/kWh	19.94	17.62	15.90	17.54	24.44	-	
Off Peak (2230- 0530)	LKR/kWh	9.09	8.03	7.25	8.00	11.14	-	
Day (0530-1830)	LKR/kWh	15.25	13.47	12.16	13.41	18.69	-	