


BEFORE THE HONOURABLE

KERALA STATE ELECTRICITY REGULATORY COMMISSION

At its office at C V Raman Pillai Road, Vellayambalam, Thiruvananthapuram


FILING No	
IN THE MATTER OF :	Truing up of Accounts of Generation, Transmission and Distribution Strategic Business Units of the Kerala State Electricity Board Limited (KSEBL) for the year 2019-20.
Petitioner	Kerala State Electricity Board Limited, Vydyuthi Bhavanam, Pattom, Thiruvananthapuram – 4
	APPLICANT 
	CHIEF ENGINEER COMMERCIAL AND TARIFF Kerala State Electricity Board Limited

AFFIDAVIT VERIFYING THE APPLICATION ACCOMPANYING THE PETITION FOR TRUING UP OF ACCOUNTS OF GENERATION, TRANSMISSION, AND DISTRIBUTION FUNCTIONS OF KSEBL FOR THE YEAR 2019-20.

I, **Sasankan Nair C.S**, son of Sri. G.Chellappan Pillai, aged 55 years residing at Sasindu, Snehapuri Road, Karimom, Thiruvananthapuram do solemnly affirm and say as follows:

I am working as Chief Engineer Commercial & Tariff, Kerala State Electricity Board Limited, Vydyuthi Bhavanam, Pattom, Thiruvananthapuram and the petitioner in the above matter and I am duly authorized by the Board to make this affidavit on its behalf. I solemnly affirm at Thiruvananthapuram on this the 7th day of January 2022 that the contents of the above petition are true to my information, knowledge and belief. I believe that no part of it is false and no material has been concealed there from.

Deponent



Chief Engineer

Commercial & Tariff

Kerala State Electricity Board Limited,

Vydyuthi Bhavanam, Pattom

Thiruvananthapuram – 695 004

VERIFICATION

I, the above-named deponent, solemnly affirm at Thiruvananthapuram on this, the 7 th day of January 2022 that the contents of the affidavit are true to my information, knowledge and belief, that no part of it is false and that no material has been concealed there from.

Deponent



Chief Engineer

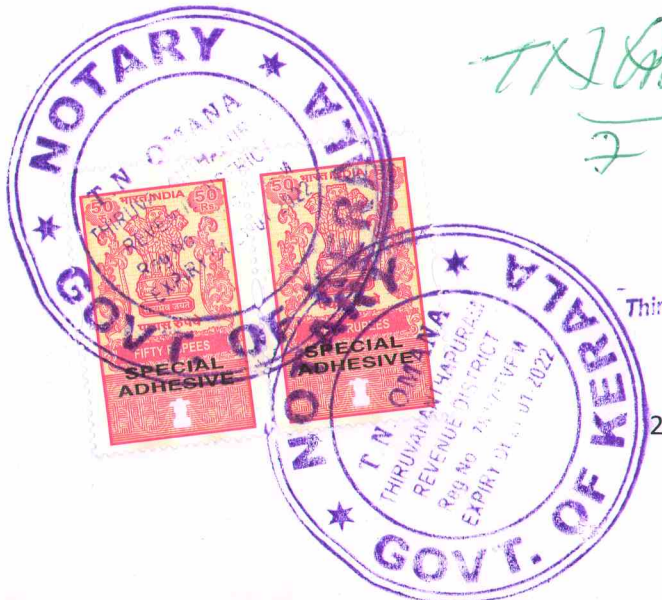
Commercial & Tariff

Kerala State Electricity Board Limited

Vydyuthi Bhavanam, Pattom

Thiruvananthapuram – 695 004.

Solemnly affirmed and signed before me.



T. N. OMANA
Advocate & Notary
Thiruvananthapuram Revenue District
Kerala State South India

**BEFORE THE HONORABLE
KERALA STATE ELECTRICITY REGULATORY COMMISSION**

In the matter of : Truing up of Accounts of Generation, Transmission and Distribution Strategic Business Units of the Kerala State Electricity Board Limited (KSEBL) for the year 2019-20.

Petitioner : Kerala State Electricity Board Limited,
Vydyuthi Bhavanam, Pattom, Thiruvananthapuram - 4

THE PETITIONER HUMBLY STATES THAT:

CHAPTER- 1 : INTRODUCTION

1.1 The petitioner, Kerala State Electricity Board Limited (KSEBL), is a State Public Sector power utility company constituted by the State Government. The Assets, Rights and Liabilities of former State Electricity Board was re-vested into the company on October 31, 2013. The former Board and the petitioner company had been submitting ARR, ERC & Tariff and Truing up petitions regularly since FY 2003-04 in accordance with the Tariff regulations notified by the Hon'ble Commission from time to time, National Tariff Policy, Tariff Regulations of CERC and ESSAR of 1985.

1.2 Hon Commission notified the second MYT Regulation for determination of Tariff in 2018 on 05.10.2018, after repealing the earlier MYT Tariff Regulation, 2014, with a four-year control period starting from FY 2018-19 till 2021-22. The regulations contain a performance-based approval scheme along with a framework for sharing Gains and Losses and specifying the controllable and un-controllable factors.

1.3 KSEBL had submitted MYT petition for the above-mentioned control period containing ARR & ERC and capital investment plan for the four-year control period from 2018-19 to 2021-22 in respect of its three SBUs along with tariff revision proposals for the years 2018-19 and 2020-21, before KSERC on 31.10.2018, strictly adhering to the MYT Regulations 2018 notified by KSERC. Hon'ble Commission has issued orders on the MYT petition on 08.07.2019 and also pleased to revise the electricity tariff of all categories of consumers in the state along with bulk supply tariff applicable to other licensees. Even though KSEBL had requested tariff revision for two years during the control period, (2018-19 and 2020-21) Hon'ble Commission issued tariff revision orders only for one year (2019-20). Subsequently, Hon'ble Commission has extended the validity of the tariff order dated 08.07.2019 till 31.03.2022.

1.4 The summary of the audited Annual statement of Accounts of KSEBL for the year 2019-20 vis-à-vis the amount approved by Hon Commission in the order on the MYT petition is furnished in the Table – 1.1 given below. The Statutory Auditors of KSEBL has conducted audit and issued certificate for the year 2019-20 and a copy of the audited accounts is submitted separately along with this petition.

Table-1.1: Comparison of ARR, ERC and Revenue Gap of KSEBL for 2019-20 (Rs. Cr.)					
No	Particulars	Approved*	Audited	Truing up	Difference over approval
1	ARR	15571.72	15124.15	15123.74	447.98
2	ERC	14771.16	14854.60	14570.64	200.52
3	Revenue gap (1-2)	800.56	269.55	553.10	247.46
<i>*Approved Vide Tariff Order dt.08.07.2019 in OP No. 15 / 2018</i>					

1.8 The difference between audited accounts and true-up values for 2019-20 are mainly due to difference in treatment of Return on Equity, claw back depreciation, actuarial liability etc. The matter is explained in detail in the respective paragraphs in Chapters below. Function wise segregation of expenses, revenue and Profit / loss are summarised below.

Table-1.2 : Business Unit wise ARR, ERC and Revenue Gap for 2019-20 (Rs Cr)				
No	Particulars	SBU-G	SBU-T	SBU-D
1	ARR	398.42	789.90	14572.01
2	ERC / Transfer Value	514.80	909.89	14018.91
3	Revenue surplus (gap) (2-1)	116.38	119.99	-553.10

1.9 Following chapters in this petition describe the Actual Expenses and Revenue of the petitioner in FY 2019-20 and the comparison with respective approved values.

CHAPTER – 2: TRUING-UP OF ARR OF SBU – GENERATION

2.1 The generation capacity of SBU G comprises a mix of Hydel, Thermal, solar and wind power stations. The total installed capacity as on 31.03.2020 is **2238.09 MW** of which 91.98 % is Hydel, 7.14% is Thermal, 0.77 % from solar and rest from the wind. The source wise generation capacity details are given in the table- G 1 below:

Table- G 1 : Source wise Generation Capacity	
Source	Installed Capacity (MW) as on 31.03.2020
Hydel	2058.76
Thermal	159.96
Wind	2.03
Solar	17.34
Total (Generation)	2238.09

2.2 Energy generated and purchased by the petitioner at Kerala periphery excluding auxiliary consumption and external loss is 26126.17 MU and after substation auxiliary consumption the Energy generated and purchased by the petitioner to meet the demand in the year totals to **26106.57 MU**. Energy generated by the petitioner's Generation Business Unit was **5781.23 MU** (22.19%) out of which **5741.83 MU** was from own Hydro-electric Stations and remaining **39.4 MU** was generated from thermal, wind and solar stations. Source wise generation details are enclosed as Table-G2 below. Details of energy generated and expenses are furnished in paragraphs hereunder.

Table – G2: Energy Generation from own stations for FY 2019-20 (MU)			
Source	KSERC approval	Audited Accounts	Difference
Gross Generation			
Hydro	6998.42	5741.83	1256.59
BDPP	0	0.1	-0.1
KDPP	0	11.93	-11.93
Wind	2.04	1.42	0.62
Solar	42.61	25.95	16.66
Subtotal	7043.07	5781.23	1261.84
Aux consumption			
Hydro	72.36	37.16	35.2
BDPP	0	0.62	-0.62
KDPP	0	1.03	-1.03
Wind	0.45	0	0.45
Solar		0	
Sub total	72.81	38.81	34
Net Generation			
Hydro	6926.06	5704.67	1221.39
BDPP	0	-0.52	0.52
KDPP	0	10.9	-10.9
Wind	44.2	1.42	16.83
Solar		25.95	
Subtotal	6970.26	5742.42	1227.84

2.3 Hydro Generation:

2.3.1 Approved net hydro generation for the FY 2019-20 as per the MYT Order dated 08.07.2019 was **6998.42 MU** whereas the actual hydro generation was **5741.83 MU** leaving a shortage of **1256.59 MU** (17.9 %). The year 2019-2020 began with carryover storage of 1797.87MU as on 01.04.2019. The year started with an initial forecast of normal monsoon. However, the monsoon was very weak and the inflow to the reservoirs and storage position registered record low levels during June & July. The south west monsoon went into an active phase in the State during August and as a result of this the inflow position during these months has improved significantly. But still the overall inflow for the FY 2019-20 was lesser than anticipated.

2.3.2 The anticipated and actual inflow during the year 2019-20 are given in the table- G 3 below:

Months	Anticipated Inflow (MU)	Net Inflow (MU) (considering Spill)	Net Inflow as percentage of Anticipated (%)	Surplus (+) / Deficit (-) (MU)
Apr-19	115.51	85.62	74.12	-29.89
May-19	176.5	113.4	64.25	-63.1
Jun-19	823.56	165.19	20.06	-658.37
Jul-19	1463.48	695.75	47.54	-767.73
Aug-19	1275.8	1950.17	152.86	674.37
Sep-19	843.88	1082.66	128.30	238.78
Oct-19	757.88	766.14	101.09	8.26
Nov-19	497.64	473.2	95.09	-24.44
Dec-19	240.91	242.43	100.63	1.52
Jan-20	125.1	131	104.72	5.9
Feb-20	82.79	58.57	70.75	-24.22
Mar-20	95.67	70.38	73.57	-25.29
Total	6498.72	5834.51	89.78	-664.21

2.3.3 The spill detail during the water year is given in the table- G 4 below,

	Jun	July	Aug	Sep	Oct	Nov
Poringal		26	112.6	50.5	8.2	1.26
Neriamangalam		3.73	60.1	63.5	4.7	
L P		4.8	44.1	27.7		
Ponmudy		-	16.7	11.6		
Kuttiady		-	68.9	23.6		
Thariode		-	25.9	43.5		
Monthly Total	-	34.6	328.6	220.5	12.9	1.26
WY Total		598MU				

2.3.4 The actual inflow received during 2019-20 FY was 5834.51 MU against the anticipated inflow of 6498.72 MU. There is a shortage of 664.21 MU in actual inflow. The hydro generation against the KSERC approved generation of 6998.42 million units during the year 2019-20 comes to 5741.83 MU. The reduction in generation is 1256.59 MU. Out of this 664.21 MU deficit was contributed by the net inflow variation.

2.3.5 The reservoir storage as on 01.04.2019 was 1797.87 MU and the storage on 31.03.2020 was 2082.104MU. The difference in storage as on 31.03.2020 comes to 284.23MU. Water for additional 284MU generation was available in the reservoir on 31.03.2020. This was because of the spatial distribution of monsoon.

2.3.6 It is also to be noted that, the flood during August 2019 shattered the northern part of the State of Kerala with KSEB Ltd. sustaining major losses in all fronts viz. Generation, Transmission, Distribution. Major losses due to the monsoon in 2019 were in the northern districts of Palakkad, Kannur, Kozhikode, Malappuram and Wayanad. The operation of three generators with 50 MW capacity in Kakkayam, one of KSEB's major hydroelectric power stations has been interrupted due to land slide and significant damage occurred to 7 minor hydroelectric power stations and floating solar plant on the Barapole Canal. The operation of 43 substations, including two 220 kV substations and six 110 kV substations, was disrupted.

2.3.7 The Machines of Kakkayam Power House were (KES, KAES) affected due to land slide occurred near power house on 08.08.2019. Mud and water entered power house and Units 4, 5, & 6 stopped completely. Chembukadavu I & 2 SHEPs flooded during the rain in August 2019. The restoration works in the flood affected HEPs were completed and machine synchronized to grid are given in the table- G 5 below:

Table – G5: machine synchronized after flood 2019		
Sl No	Name of Project	Date of restoration
1	Kakkayam Unit #4	1.11.2019
2	Kakkayam Unit #5	22.09.2019
3	Kakkayam Unit #6	04.09.2019
4	Chembukadavu I Unit#1&2	14.08.2019
5	Chembukadavu I Unit #3	10.09.2019
6	Chembukadavu II Unit#3	08.09.2019
7	Chembukadavu II Unit#2	09.09.2019
8	Chembukadavu II	10.09.2019

2.3.7 Land slide along penstock route and weir side occurred at Adyanpara Power House and machine was forced shutdown on 05.08.2019. The Power House was affected severely for which restoration works were undertaken and machine was put on service on 14.06.2020. These outages also affected the overall generation from the hydro resources. Further, 62.10 MU was expected from 3 generating stations viz. Bhoothathankett, Upper Kallar and Poringal AES, but these stations could not be commissioned during the year 2019-20.

2.3.8 The details of hydel generation (Including auxiliary consumption) and station wise generation details are given in Table- G6 and G7 respectively hereunder. The metered energy for auxiliary consumption does not include the energy consumption of excitation system, generator transformer (transformer losses). Presently, in hydel stations, there is no metering provision for the energy consumed by excitation systems, generating transformer (GT) and switching losses. Hence the auxiliary consumption as per audited accounts is lower than the approved values.

2.3.9 During public hearing of 2017-18 truing up of accounts of KSEBL, the Hon'ble commission pointed out that the accounted auxiliary consumption was much lower than the prevailing norms and directed KSEBL to explore the reasons for the same. Based on the above KSEBL has worked out a methodology to capture actual auxiliary consumption of power station and its switchyard and presented the same during the public hearing of Tariff Regulation 2021(draft). In the proposed method, the switch yard of the generating station is considered as a node and the sum of generation from the plant and feeder imports to the switch yard are considered as energy input. The feeder exports from the switch yard are considered as the energy output. The difference between these two ((Generation +Import)-Export) is considered as the auxiliary consumption. The above calculation accounts for the transformer loss and the switchyard loss of the generating station.

2.3.10 However, As the accounts were finalised with the earlier methodology for computing auxiliary consumption and details pertaining to T&D/AT&C losses computed with auxiliary consumption was forwarded to ministry of power. Hence for the purpose of true up, the petitioner is only claiming the auxiliary consumption based on auxiliary panel as recorded.

Month	Generation	Aux Consumption	Net hydro Generation	Month	Generation	Aux Consumption	Net hydro Generation
Apr-19	625.93	3.07	622.86	Oct-19	548.90	3.47	545.43
May-19	694.32	3.17	691.15	Nov-19	474.12	2.90	471.22
Jun-19	374.19	2.28	371.91	Dec-19	391.99	2.59	389.40
Jul-19	322.44	2.21	320.23	Jan-20	440.07	2.68	437.39
Aug-19	453.99	2.70	451.29	Feb-20	398.82	6.45	392.37
Sep-19	556.43	3.19	553.24	Mar-20	460.63	2.45	458.18
				Total	5741.83	37.16	5704.67

Table-G7: Station Wise Hydel Generation for 2019-20					
No	Hydro Electric Stations	Generation (MU)	No	Hydro Electric Stations	Generation (MU)
1	Idamalayar	260.54	21	Chembukadavu- II	3.99
2	Idukki	1829.85	22	Urumi - I	7.11
3	Kakkad	176.23	23	Urumi - II	4.24
4	Kallada	33.43	24	Poozhithode	6.70
5	Kuttiyadi+KES+KAES	593.08	25	Ranni-Perinadu	7.35
6	KuttiyadiTail Race	6.06	26	Peechi	2.42
7	Lower Meenmutty	4.87	27	Vilangadu	14.71
8	Lower Periyar	427.14	28	Chimmony	6.43
9	Maduppatty	3.44	29	Addyanpara	2.24
10	Malampuzha	4.14	30	Barapole	20.95
11	Malankara	30.32	31	Perunthenaruvi	12.28
12	Neriamangalam+NES	309.90	32	Kakkayam SHEP	8.12
13	Pallivasal	142.12	33	Poringal screw generation	0.07
14	Panniyar	139.48		KSEB Hydro (TOTAL)	5741.83
15	Peppara	5.75		Aux Consumption (MU)	37.16
16	Poringalkuthu +PLBE	209.47		Auxiliary consumption %	0.647%
17	Sabarigiri	1099.10		Net Generation in MU	5704.67
18	Sengualm	150.82			
19	Sholayar	216.30			
20	Chembukadvu - I	3.23			

2.4 Thermal Generation:

2.4.1 Due to high variable costs no generation has been proposed from the thermal power plants, BDPP & KDPP for the entire control period. However, it was also submitted that the scheduling of these plants will be done in case of contingency only. Accordingly, as per the system requirements, KSEBL was forced to generate a small quantum of energy from KDPP& BDPP stations to the tune of 12.03 MU (11.93 + 0.10) together in FY 2019-20. The monthly split up details of the generation from thermal sources are shown in table G8.

2.4.2 The Kerala grid, mainly in the northern part of the state was experiencing severe low voltage in summer. The situation was particularly worse during the months of March and April. In March 2019 the system voltage went below the IEGC stipulated level on many occasions. The Kozhikkode 400kV station experienced an extreme low voltage of 357kV on 04.03.19. As such low voltage operation is a real threat and highly detrimental to the power system operation as well as the reliability of the grid. The Southern Regional Load Despatch Centre (SRLDC) had issued several warnings requiring

Kerala SLDC to adopt all possible measures to improve the 400kV side voltage at Kozhikode. The system operator intimated that, if the voltage conditions are not managed through appropriate reactive power support, restrictions may be imposed on inter-state drawals of the State which may necessitate load restrictions. Hence as a part of this Kuttiyadi was scheduled during day time and Kozhikode 400kV was operated in split bus mode so as to limit the drawal from Mysore.

2.4.3 The month of March'19 witnessed a hike in demand by 6.2% higher than the demand in march 2018 the anticipated daily consumption was 77.6MU while the actuals figured to a daily average of 80.51MU. The month witnessed all-time record figures for the month of March, in the morning demand, day demand and evening peak demand and daily consumption for the month of March. The month of April'19 and May'19 witnessed all-time records New all-time records were set in daily consumption, morning demand and day peak during May. The average daily consumption was the highest in May compared to March and April. The evening peak continued to be in the time period of 22:00-22:30hrs

2.4.4 Hence considering the anticipating hike in demand due to the impact of Lok Sabha elections in the month of April'19 and the intense summer it was decided in the PSP meeting (Power Supply Position (PSP) meeting is carried out for planning the generation schedule and analysing the Load Generation Balance. Also, the decisions regarding the contingency measures taken to ensure the grid stability is also decided in the PSP meeting) conducted on 02.4.19 to schedule KDPP to the fullest capacity during the evening peak hours of both April'19 and May'19. However, KDPP was scheduled in April'19 even during daytime when the permit work in Nallalam transformer was availed. A total of 5.47MU, 6.5 MU were generated from KDPP in the month of April'19 and May 19 respectively. The Day wise schedule of KDPP generation in April-19 and May-19 attached.

2.4.5 In July-19, Talcher one unit(100MW) and MPL one unit (135 MW) were under annual Overhauling. Also, due to coal shortage some of the major LTA generators like M/s. Jindal and M/s. Jhabua also reduced their declared Capacity. Hence purchase was done to meet the deficit. In the second week of July-19, the rates in Day Ahead Market showed a hike to the order Rs 6 to Rs.9/- during 19:30 to 23 hrs. Hence to BDPP units (VC- of the order of Rs.6.56/-) was scheduled on 12.7.19 (0.0079 MU) and 13.7.19(0.0907 MU) total of 0.0986 MU, however due to the non-availability of the units the scheduling was not done for further days.

Table-G8: Generation from BDPP and KDPP (MU)						
Month	BDPP	KDPP		Month	BDPP	KDPP
Apr-19	0	5.47		Nov-19	0	0
May-19	0	6.5		Dec-19	0	0
Jun-19	0	0		Jan-20	0	0
Jul-19	0.1006	0		Feb-20	0	0
Aug-19	0	0		Mar-20	0	0
Sep-19	0	0.0025				
Oct-19	0	0		Total	0.10	11.93

2.5 Solar & Wind projects:

2.5.1 Hon'ble Commission has approved an energy generation of 44.20 MU from wind and solar projects for the FY 2019-20. In the case of solar generation, on 09.08.2019, due to flood, 1 MW canal bank solar project has been washed away during the flood. About 340 Nos solar panels were damaged in both canal bank and canal top solar projects. Thus, the total generation from renewable source was reduced to 27.37 MU.

2.6 ARR&ERC of SBU- G:

2.6.1 The actual ARR, ERC for the Generation Business Unit are furnished in **Form G-P&L**. A statement showing comparison of ARR & ERC approved by the Hon Commission and actual for the year as well as true up sought along with deviations are summarized below. Item wise explanation is furnished thereafter. The detailed explanation on prudence of various expenses and segregation of various costs among the three Strategic Business Units is submitted under chapter -5 of this petition. Accordingly, a gist of reasoning is provided hereunder.

Table-G9 : COMPARISON OF GENERATION SBU ARR (Rs Cr)					
No	Particulars	2019-20			
		Approval	Actuals	TU	Difference over approval
1	Cost of Generation of Power		5.71	5.71	-5.71
2	Interest & Finance Charges	136.24	95.57	115.51	20.73
3	Depreciation	141.38	186.04	125.93	15.45
4	O&M Expenses (Excl terminal benefits)	135.04	205.81	132.16	2.88
5	RoE (14% of Rs 1454.53 Cr)	116.38	132.69	116.38	0
6	Other Expenses & PP expenses		0.02	0.02	-0.02
7	Exceptional Items - Flood		3.75	3.75	-3.75
8	Interest on additional bond to Master Trust	10.26		10.26	0
9	Provision for pay revision			15.94	-15.94
10	ARR	539.3	629.59	525.66	13.64
11	Less Non-Tariff Income	33.38	16.3	10.86	22.52
12	Net ARR (Transferred to SBU-D)	505.92	613.29	514.80	-8.88

2.6.2 It may kindly be seen that the actual net ARR of Rs.613.29 Cr exceeded approval by Rs. 107.37 Cr and whereas the amount sought for true up is slightly higher by Rs.8.88 Cr from the approved figure.

2.7 Cost of generation of power

2.7.1 Rs. 5.71 Cr was actually incurred during the year towards the cost of fuel and lubricants for generation of stations owned by KSEBL, which may kindly be approved.

2.8 Interest and Finance charges:

2.8.1. Actual Interest and finance charges for the year 2019-20 is Rs 95.57 as against the approved figure of Rs 136.24 Cr. An amount of Rs 115.51 Cr is claimed under the head in true up. The details are given below.

No	Particulars	Approved	Actual	TU	Difference
1	Interest on Outstanding Capital Liabilities	82.45	46.26	68.14	14.31
2	Interest on GPF	9.98	7.72	7.72	2.26
3	Other Interests				
4	Interest on Master Trust Bonds	37.58	33.06	33.06	4.52
5	Interest on Working capital	6.23	8.53	6.59	-0.36
6	Total	136.24	95.57	115.51	20.73

2.8.2 **Interest on normative loan:** Regulation 26 of Tariff Regulation 2018 specifies the approval of loan Interest on normative basis. Based on this, while issuing orders on MYT petition, Hon'ble Commission approved Rs.794.60 Cr as opening normative loan as at 01.04.2018 after considering provisional asset addition for the years 2016-17 and 2017-18, contributions and grants, provisional addition for 2018-19 etc. Considering interest rate at 9.33% Hon'ble Commission approved normative interest at Rs.82.45 Cr for 2019-20. Actual entitlement of normative loan as on 01.04.2019, GFA addition during 2019-20, repayment during the year and closing normative loan as on 31.03.2020, interest on normative loan along with SBU wise segregation are computed and explained in chapter 5. Based on the computation, an amount of Rs.68.14 Cr is claimed as interest on normative loan for the year 2019-20.

2.8.3 **Interest on PF:** Hon Commission approved Rs 9.98 Cr towards interest on PF. But as per the audited accounts, the actual interest paid on PF was Rs.7.72 Cr, which is less than the approval by Rs.2.26 Cr. The actual interest for SBU- G amounting to Rs.7.72 Cr may kindly be trued up.

2.8.4 **Interest on bond to Master Trust:** State Government, as per notifications dated 31.10.2013 and 28.01.2015, ordered creation of a Master Trust for meeting the unfunded liability of pension, gratuity and leave surrender as on 31.10.2013, in respect of the personnel transferred from erstwhile KSEB to KSEBL. The total liability as on 31.10.2013 was estimated at Rs.12418.72 Cr and necessary funding arrangements put in place through issue of 2 series of Bonds. Hon Commission recognized the

unfunded pension liabilities as above and approved recovery of interest on KSEBL share of Bonds as per Tariff Regulations, 2014. Thus, Hon Commission approved Rs.37.58 Cr towards interest on Master Trust bonds. As detailed in chapter 5, actual share of expenses for SBU G has been Rs. 33.06 Cr as per accounts, which may kindly be approved.

2.8.5 Interest on Additional Bond to Trust: In addition to the interest on bonds actually issued, an additional amount of Rs.200 Cr (Rs. 10.26 Cr for SBU G) has been provisionally approved towards unfunded liability. Hon'ble Commission may kindly true up the provisional amount of Rs.10.26 Cr as detailed in chapter 5.

2.8.6 Interest on working capital: Even though there was no generation approved from the thermal stations, KSEBL was forced to use the same during contingencies to the extent of 12.03 MU. Accordingly, in the computation of working capital, the cost of fuel is taken as the cost incurred on fuel during the maximum consumption month of KDPP alone. The detailed calculation of the same is shown below.

Sl No	Interest on working capital - SBUG (Rs Cr)	
		Rs. Crore
1	Cost of fuel for FY 2019-20	4.72
2=(1/12)	Cost of fuel for one month	0.393
3	Approved O&M expenses FY 2019-20	129.77
4	O&M Expenses for new stations	2.389
5=(3+4)/12	O&M Expenses for one month	11.013
6	Approved GFA as on 31.03.2018	4729.74
7	GFA addition claimed for depreciation FY 2018-19	90.06
8=(6+7)	Opening GFA - Plants and Equipment for FY 2019-20	4819.8
9=(8*1%)	Cost of maintenance of spares at 1% of historical cost	48.198
10=(2+5+9)	Total requirement of working Capital	59.605
11	Base rate as on 01-04-2019	9.05%
12	Interest rate on working capital (%)	11.05%
13= (10*12)	Interest on working capital (Rs Cr)	6.59

2.8.7 In view of the above, the Hon'ble Commission may kindly approve interest on working capital at Rs.6.59 Cr as detailed above.

2.9 O&M of SBU-G:

2.9.1 As per Regulation 45 (1) of Tariff Regulations, 2018, allowable O&M expenses for the existing generating stations of KSEBL for 2019-20 has been Rs. 129.77 Cr. Further, by virtue of Regulation 45 (2), KSEBL is entitled to recover additional O&M expenses for new generating stations.

2.9.2 The Hon'ble commission had approved 5.27 Cr as O&M expense for new and ongoing hydro and solar projects for 2019-20. The Perunthenaruvi SHEP was commissioned on 24.10.2017 but as per the account, the same is capitalised only on 2018-19, hence the same is not considered for finalising the

operation and maintenance cost of existing station of KSEBL under SBUG. Hence the same may be considered as new project with O&M expense, as per Hon'ble commission approved O&M base level and escalation for new SHP and solar projects on tariff order dated 08/07/2019, become Rs. 1.15 Cr for the period 2019-20. For Kakkayam (3 MW), the O&M expense for the financial year 2019-20 as per the approved base level and escalation factor become Rs. 0.96 cr. Further, solar projects have been added in the financial year 2018-19 and 2019-20 (Attached as Annexure G1, G2). The approved O&M expense for Solar Project commissioned during FY 2018-19 (3.315 MW) become Rs. 0.27Cr and for the project commissioned during FY 2019-20 become RS.0.009 Cr. Hence the O&M cost for new projects under SBUG for the FY 2019-20 become Rs.2.39Cr as detailed below.

Table – G 13 O&M expense of New Generating stations Commissioned					
Project	CoD	Capacity- MW	Energy- MU	Capital cost (RS Cr)	Addl. O&M cost (Cr)
Perunthenaruvi	23.10.2017	3.6	12.17		1.15
Kakkayam	16.07.2018	3	10.39		0.96
Solar Projects					
Solar Project (Annexure G1)	FY 2018-19	3.315			0.27
Solar Project commissioned FY 2019-20 (Annexure G2)	24.01.2020	0.65			0.009
Total		10.565			2.39

2.9.2. The actual O&M expenses of the generation Business Unit was **Rs. 205.81 Cr.** Component wise details are given in the **Table-G14** and detailed in Form G4. Hon Commission had approved only **Rs 135.04 Cr** towards O&M expenses based on the norms specified in the Tariff Regulation, 2018. However, based on the commissioning of the new generating stations and provision for pay revision, a claim of Rs. 132.16 is sought for true up for the year 2019-20. The provision for pay revision amounts to Rs.15.94 Cr, over normative values, as detailed in chapter 5.

Table G 14 Details of O&M expenses for 2018-19					
No	Particulars	Approved	Actual	TU requirement	Difference
1	Employee Cost		154.41		
2	A&G Expenses		25.92		
3	R&M Expenses		25.48		
4	Sub total	135.04	205.81	132.16	2.88

2.9.3 Detailed explanation on the O&M expenses is furnished in Chapter 5 of this petition. It is humbly prayed that the Hon'ble Commission may be pleased to approve the O&M expense as above.

2.10 Depreciation:

2.10.1 The approved depreciation for the Generation assets for the year 2018-19 was Rs 141.38 Cr whereas the actual amount was Rs.186.04 Cr and the amount sought for truing up is Rs. 125.93 Cr.

2.10.2. Hon'ble Commission may kindly note that depreciation as per accounts has been worked out in line with IND AS and claw back depreciation was determined and credited to other Income of Annual accounts. But, as per MYT Regulation for the control period 2018-22, depreciation is allowable as per the provisions contained in the Tariff Regulations, 2018 in which applicable rates as well as methodology to be followed are specified therein. Accordingly, allowable depreciation for SBU G has been worked out at **Rs. 125.93 Cr** as detailed in Chapter 5. Hon'ble Commission may kindly approve the same.

2.11 Return on Equity:

2.11.1 Hon'ble Commission approved Return on equity at Rs.116.38 Cr. Actual RoE for the Generation SBU as per audited accounts amounts to Rs. 132.69 Cr. Hon'ble Commission may kindly approve Rs.116.38 Cr as detailed in Chapter 5.

2.12 Non-Tariff Income:

2.12.1 Hon'ble Commission approved Rs.33.38 Cr under this head. Actual income earned as per accounts has been Rs.16.30 Cr. SBU G seeks to true up Rs.10.86 Cr under the head non-tariff income as detailed in chapter 5 after excluding income booked under claw back depreciation. The non-Tariff income includes income from sale of scrap, interest on advances to contractors, interest on staff loans and advances, rent from buildings etc. Hon'ble Commission may kindly true up Rs.10.86 Cr under this head.

2.13 Other items and Prior period expenditure:

2.13.1 Net prior period expenses and other expenses amounted to Rs.0.02 Cr for the year 2019-20, as detailed in chapter 5, which may kindly be approved.

2.14 Exceptional item

2.14.1 Share of SBU G amounts to Rs.3.75 Cr as detailed in chapter 5. Hon'ble Commission may kindly true up the claim.

2.15 Transfer of Generation Costs:

2.15.1 ARR for SBU G sought for true up is **Rs. 525.66 Cr** and Non-tariff income earned is **Rs. 10.86 Cr**. The net expenses of SBU G transferred to SBU-D are **Rs. 514.80 Cr**. This cost is considered as the Cost of own generation in the ARR of SBU-D, which may kindly be approved.

2.16 ARR & Tariff Formats:

2.16.1 Formats relating to Generation Business Units as per the Tariff regulation 2018 are furnished hereafter. However, Forms G-3.1, G-6.5 to G-6.8, G-6.10 to G-7.1 which are not directly relevant or applicable or on which data are not readily available are not included in this submission.

2.17 The Next Chapter thereafter provides the truing up of Transmission Business Unit.

Annexure G1

Sl.No	Type	Project	MW
1	GM	Kuttippuram-500kW COD(28/11/2017)	0.5
2	Roof top	220kV S/Sn Kundara -30kW DOC -20.09.2017	0.03
3	Roof top	110kV S/Sn Kanjikode -25kW DOC -12.05.2017	0.025
4	Roof top	220kV S/Sn Palakkad -35kW DOC -10.07.2017	0.035
5	Roof top	220kV S/Sn Edappon -30kW DOC -25.08.2017	0.03
6	Roof top	220kV S/Sn Edappon -45kW DOC -21.12.2017	0.045
7	Roof top	110kV S/Sn Kunnamangalam -20kW DOC -18.04.2017	0.02
8	Roof top	220kV S/Sn Orkattery -35kW DOC -06.09.2017	0.035
9	Roof top	220kV S/Sn Nallalam -35kW DOC -05.05.2017	0.035
10	Roof top	220kV S/Sn Brahmapuram -55kW DOC -26.04.2017	0.055
11	Roof top	110kV S/Sn Thycattussery -20kW DOC -15.12.2016	0.02
12	Roof top	220kV S/Sn Kattakkada -20kW DOC -27.09.2017	0.02
13	Roof top	110kV S/Sn Paruthippara -30kW DOC -07.10.2017	0.03
14	Roof top	220kV S/Sn Pothencode-35kW DOC -18.07.2017	0.035
15	Roof top	66kV S/Sn GIS LA Complex-25kW DOC -03.08.2017	0.025
16	Roof top	66kV S/Sn GIS Power house-25kW DOC -02.08.2017	0.025
17	Roof top	66KV S/SnVeli -20kW DOC -16.02.2018	0.02
18	Roof top	TMR Thirumala-35kW-DOC-10.07.2017	0.035
19	Roof top	VB Pathanamthita-45kW- DOC-22.06.2017	0.045
20	Roof top	220kV S/Sn Malaparamba-20kW DOC -11.12.2017	0.02
21	Roof top	VB Manjeri-30kW DOC-20.01.2018	0.03
22	Roof top	220kV S/Sn Areacode -30kW DOC -03.01.2018	0.03
23	Roof top	PTRU-Kalamassery -40kW -DOC-14.03.2018	0.04
24	Roof top	220kV S/Sn Mylatty -30kW DOC -08.02.2018	0.03
25	Roof top	220kV S/Sn Kanhirode -35kW DOC -15.02.2018	0.035
26	Roof top	110kV S/Sn Viyyur -20kW DOC -12.01.2018	0.02
27	Roof top	110kV S/Sn Pathanamthitta -25kW DOC -13.07.2017	0.025
28	Roof top	Mini Control room & Workshop Madakkathara- 45kW DOC-12.01.2018	0.045
29	Roof top	Main Control room & Workshop Madakkathara-150kW DOC-09.07.2018	0.15
30	Roof top	Ele Dvn Kollam-35kW DOC-19.03.2018	0.035
31	Roof top	Ele Dvn Kundara-25kW DOC-08.12.2017	0.025
32	Roof top	Vaidyuthi bhavanam Chathnnoor-25KW COD(27.02.2018)	0.025
33	Roof top	Vaidyuthi bhavanam Kottarakkara-80KW COD(20.02.2017)	0.08
34	Roof top	220kV S/Sn New pallom -20kW DOC -15.01.2017	0.02
35	Roof top	220kV S/Sn Ambalamughal-20kW DOC -31.07.2017	0.02
36	Roof top	Vaidyuthi bhavanam Thodupuzha-50KW COD(25.02.2017)	0.05
37	Roof top	Ele Sn.Beach-20kW DOC-06.10.2017	0.02
38	Roof top	Vaidyuthi bhavanam Thrissur-45KW COD(23.09.2017)	0.045
39	Roof top	SLDC Building-35kW- DOC	0.035

40	Roof top	Ele Sn.Kesavadasapuram-25kW DOC-06.10.2017	0.025
41	Rooftop	110kV S/S Ponnani -500 kW DOC -16.1.2019	0.5
42	Rooftop	Peerumedu	0.5
43	Rooftop	IPDS at various locations	0.445
		Total	3.315

Annexure G2

Sl.No	Type	Project	MW
1		Kottiyam,COD 27.1.2020	0.6
2		Dam safety,Pallom	0.05

ARR and Tariff Formats Generation Business INDEX

S.No.	Form No.	Title of Form
1	2	3
1	Form G 1.1	Summary of Tariff Proposal
2	Form G 1.2	Aggregate Revenue Requirement
3	Form G 2.1	#REF!
4	Form G 2.2	Operational Parameters - Generation
5	Form G 3.1	Revenue from Sale of Power
6	Form G 3.2	Non-Tariff Income
7	Form G 3.3	Capital Subsidies and Grants
8	Form G 4	O&M Expenses
9	Form G 4a	Employee Expenses
10	Form G 4b	Administrative & General Expenses
11	Form G 4c	Repair & Maintenance Expenses
12	Form G 5.1	Energy Charges for Thermal Generation
13	Form G 5.2	Fuel Cost Details for Thermal Generation
14	Form G 6.1	Fixed assets & provisions for depreciation
15	Form G 6.2a	Calculation of Weighted Average Rate of Interest on Actual Loans
16	Form G 6.2b	Calculation of Interest on Normative Loan
17	Form G 6.3	#REF!
18	Form G 6.4	Consolidated report on additions to Fixed Assets during the year
19	Form G 6.5	#REF!
20	Form G 6.6	#REF!
21	Form G 6.7	#REF!
22	Form G 6.8	#REF!
23	Form G 6.9	Return on Equity/Return on Net Fixed Assets
24	Form G 6.10	#REF!
25	Form G 6.11	Interest on Working Capital
26	Form G 6.12	#REF!
27	Form G 6.13	Inflow Review (Water Year)
28	Form G 6.14	#REF!
29	Form G 6.15	Maintenance Schedule and net hydro capacity available (MW)
30	Form G 7.1	#REF!
31	Form G 8	Deviation Analysis
Other Information/Documents		
1	Form G P&L	Profit & Loss Account
2	Form G BS	Balance Sheet at the end of the year
3	Form G CF	Cash Flow for the year

4. Corporate audited/ unaudited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the relevant years.

Note : Spread sheet financial models (in CD) shall also be submitted along with the application.

Form G 1.1
Summary of Tariff Proposal

Name of the Generating Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station/Unit : _____

S.No.	Particulars	Ref.of Form No	2019-20			
			Approved in Tariff Order	Audited	Normative	Truing Up requirement
1	2	3	4	5	6	7
1	Capacity Charge					
1.1	Annual Fixed Charges					
1.1.1	O & M Expenses	4	135.04	202.06		148.1
1.1.2	Depreciation	6.1	141.38	186.04		125.93
1.1.3	Interest on Loan Capital	6.2	82.45	46.26		68.14
1.1.4	Interest on Bonds to meet Terminal Liabilities	6.2 ©	37.58	33.06		33.06
1.1.5	Interest on Working Capital	6.11	6.23	8.53		6.59
1.1.6	Return on Equity	6.9	116.38	132.69		116.38
1.1.7	Tax on ROE	6.12				
1.1.8	Any other item (to be specified) -GPF & Other interest		9.98	7.72		7.72
	Additional contribution to Master Trust		10.26			10.26
	Other expenses			3.77		3.77
1.1.9	Less: Non-Tariff income	3.2	33.38	16.30		10.86

G1.1

	Total (1.1) Annual Fixed Charges		505.92	603.83	0.00	509.09
2	Total- Energy (variable) charges			5.71		5.71
3	Units sold to Discoms (MU)		6970.26	5742.42		5742.42
4	Rate of Variable Charges					
4.1	Rate of Energy Charge from Primary Fuel (REC) _p	5.3				
4.2	Total-(2) Rate of Energy Charge ex-bus(REC) ^{3A,3B}	5.1				

Form G 1.2
Aggregate Revenue Requirement

Name of the Generating Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station /Unit : _____

S.No.	Particulars	Reference Form	2019-20			
			Approved in Tariff Order	Audited	Normative	Truing Up requirement
1	2	3	4	5	6	7
A	Expenditure					
1	Variable Costs, including Fuel Cost	5.1		5.71		5.71
2	Depreciation	6.1	141.38	186.04		125.93
3	Interest on term Loan & Finance charges	6.2	120.03	79.32		101.20
4	Return on Equity	6.9	116.38	132.69		116.38
5	Tax on ROE	6.12				
6	Interest on Working Capital	6.11	6.23	8.53		6.59
7	O & M Expenses	4	135.04	189.87		148.10
9	Any other item (to be specified)		9.98	7.72		7.72
	Additional contribution to Master Trust		10.26			10.26
	Other expenses			3.77		3.77
	Total- (A) Expenditure		539.30	613.65		525.66
B	Receipts					
1	Transfer price	3.1	505.92	597.35		514.80
2	Non Tariff income	3.2	33.38	16.30		10.86
3	Revenue Subsidies, Grants & Subvention from State Govt.					
	Total- (B)					
C	ARR (A-B(2)-B(3))					

Form G 2.2
Operational Parameters - Generation

Name of the Generating Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station/Unit : _____

S. No.	Particulars	Units	2019-20		
			Approved in Tariff Order	Audited	Truing Up requirement
1	2	3	4	5	6 = 5 - 4
1	Operational Parameters - Hydel				
1.1	Total Capacity	MW		2238.09	
	AFC				
	Capacity Charge				
	Energy charge rate				
1.2	NAPAF	%			
1.3	Actual/Projected Annual Plant Availability Factor	%			
1.4	Design Energy	MU			
1.5	Gross Generation	MU		5781.23	
1.6	Auxiliary Energy Consumption	%		0.67	
1.7	Auxiliary Energy Consumption	MU		38.81	
1.8	Net Generation	MU		5742.42	

Note: nth year = FY 2014-15, n+1th year = FY 2019-20, and so on, for the first filing under the KSERC (Terms and Condi

Form G 3.1
Revenue from Sale of Power

Name of the Generating Business/Compan KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station : _____

Year (n-1)*

									Rs. Crore
S.No.	Particulars	Allocation (in %) /contract demand	Unit Sold (MU)	% of total Unit Sold	Fixed Charges	Energy Charges	Others, if any	Total (6+7+8)	Average' rate/kWh (paisa/kWh)
1	2	3	4	5	6	7	8	9	10
A)	Revenue from sale of Electricity (as per approved tariff)								
1	Dist.Licensee/trader/ consumers								
(a)	SBU D KSEBL		5742.42					514.80	0.90
(b)									
(c)									
(d)									
(e)									
(f)									
2	Other recoveries								
3	Revenue From Sale of Power								

*To be submitted from (n-1)th year, nth year, (n+1)th, (n+2)th and (n+3)th year

**Form G 3.2
Non-Tariff Income**

Name of the Generating Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station/Unit :

Sr. No	Particulars	2019-20		
		Approved in Tariff Order	Audited	Truing Up requirement
1	2	3	4	5 = 4 - 3
	Non-tariff income			
1	Interest on staff loans and advances			0.00
2	Income from statutory investments			0.00
3	Income from sale of ash/rejected coal			0.00
4	Income from rent of land or buildings		0.76	0.76
5	Income from sale of scrap		1.92	1.92
6	Income from staff welfare activities			0.00
7	Rental from staff quarters		0.05	0.05
8	Excess found on physical verification			0.00
9	Interest on investments, fixed and call deposits and bank balances		2.69	2.69
10	Interest on advances to suppliers/contractors		1.68	1.68
11	Income from hire charges from contractors and others			0.00
12	Income from advertisements, etc.			0.00
13	Miscellaneous receipts		3.76	3.76
14	Interest on delayed or deferred payment on bills			0.00
15	Rebate from fuel suppliers			0.00
	Clawback of Grant		5.44	
	Total non-tariff income	33.38	16.30	10.86

Form G 3.3
Capital Subsidies and Grants

Name of the Generating Business/Company

KERALA STATE ELECTRICITY BOARD

Name of the Generating Station/Unit :

S. No.	Particulars	2019-20		
		Approved in Tariff Order	Audited	Truing Up requirement
1	2	3	4	5 = 4 - 3
1	Subsidy towards cost of Capital Asset			
2	Grant towards cost of Capitals Assets			
3	Receipts from State Govt. under any scheme as grant/subsidy			
	Total		2.10	

Form G 4
O&M Expenses

Name of the Generating Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station /Unit :

----- (Rs. Crore)

S.No.	Particulars	2019-20				Remarks
		Approved in Tariff Order	Audited	Normative	Truing Up requirement	
1	2	3	4	5	6	13
1	Employee Expenses (as per norms)		138.47			
2	Annual Contribution for Terminal Liabilities based on actuarial valuation					
3	Repair & Maintenance Expenses (as per norms)		25.48			
4	Administrative & General Expenses (as per norms)		25.92			
5	Total O&M Expenses (as per Norms)			148.10	148.10	Includes O&M expenditure for new stations & Pay revision
		135.04				
6	Total O&M Expenses (actuals)		189.87			

Form G 4(a)
Employee Expenses

Name of Generating Business/Licensee

KERALA STATE ELECTRICITY BOARD LTD.

Rs. Crore

S. No.	Particulars	Reference	2019-20			Remarks
			Approved in Tariff Order	Audited	Truing Up requirement	
1	2	3	4	5	6 = 5 - 4	13
1	Basic Salary			140.49		
2	Dearness Allowance (DA)			48.09		
3	House Rent Allowance			1.64		
4	Conveyance Allowance			0.00		
5	Leave Travel Allowance			0.03		
6	Earned Leave Encashment			10.97		
7	Other Allowances			4.05		
8	Medical Reimbursement			0.65		
9	Overtime Payment			0.31		
10	Bonus/Ex-Gratia Payments			0.46		
11	Interim Relief / Wage Revision			0.00		
12	Staff welfare expenses			0.13		
13	VRS Expenses/Retrenchment Compensation			0.00		
14	Commission to Directors			0.00		
15	Pay revision provision			15.94		
16	Payment under Workmen's Compensation Act			0.00		
17	Net Employee Costs			222.75		
18	Terminal Benefits			0.00		

18.1	Provident Fund Contribution	G4(a)		0.00		
18.2	Provision for PF Fund			0.00		
18.3	Pension Payments			0.00		
18.4	Gratuity Payment			0.00		
18.5	Annual Contribution for Terminal Liabilities based on actuarial valuation			0.00		
	Contribution of KSEB Ltd towards National Pension Scheme			0.98		
19	Others			0.02		
20	Gross Employee Expenses			223.75		
21	Less: Expenses Capitalised			69.34		
22	Net Employee Expenses			154.41		

Form G 4(b)
Administrative & General Expenses

Name of Generating Business/Licensee

KERALA STATE ELECTRICITY BOARD LTD.

Rs. Crore

S. No.	Particulars	Reference	2019-20			Remarks
			Approved in Tariff Order	Audited	Truing Up requirement	
1	2	3	4	5	6 = 5 - 4	13
1	Rent Rates & Taxes			1.00		
2	Insurance			-0.31		
3	Telephone & Postage, etc.			-0.24		
4	Legal charges			0.43		
5	Audit Fees			0.14		
6	Consultancy charges			0.02		
7	Other Professional charges			0.61		
8	Conveyance			4.22		
9	Vehicle Running Expenses Truck / Delivery Van			0.04		
10	Vehicle Hiring Expenses Truck / Delivery Van			0.00		
11	Electricity charges			-2.57		
12	Water charges			0.01		
13	Entertainment			0.10		
14	Fees & subscription			0.41		
15	Printing & Stationery			0.29		
16	Advertisements, exhibition publicity			0.07		
17	Contribution/Donations			0.14		

18	Training expenses			1.11		
19	Miscellaneous Expenses			0.27		
20	DSM activities			0.00		
21	SRPC expenses			0.18		
22	Sports and related activities			0.10		
23	Freight			1.15		
24	Purchase Related Advertisement Expenses			0.73		
25	Bank Charges			0.00		
26	Office Expenses			15.94		
27	License Fee and other related fee			1.52		
28	Cost of services procured			0.00		
29	Outsourcing of metering and billing system			0.00		
30	V-sat, Internet and related charges			0.00		
31	Security arrangements			0.00		
32	Books & periodicals			0.02		
33	Computer Stationery			0.00		
34	Others			0.69		
	Others- Other Purchase related Expenses			0.28		
	Others - Expenditure inconnection with distribution of LED			0.00		
35	Gross A&G Expenses			26.34		
36	Ele. Duty u/s 3(I), KED Act			0.00		
37	Less: Expenses Capitalised			0.42		
38	Net A&G Expenses			25.92		

Name of Generating Business **KERALA STATE ELECTRICITY BOARD LTD.**

Rs. Crore

Particulars	Reference	2019-20				Remarks
		Approved in Tariff Order	Audited	flood (Exceptional Items)	Truing Up requirement	
2	3	4	5		6 = 5 - 4	13
Plant & Machinery			14.66	1.40		
Buildings			2.12	0.01		
Civil Works			4.00	1.08		
Hydraulic Works			3.26	0.43		
Lines & Cable Networks			0.61	0.82		
Vehicles			0.72			
Furniture & Fixtures			0.04			
Office Equipment			0.08			
Gross R&M Expenses			25.48	3.75		
Less: Expenses Capitalised						
Net R&M Expenses			25.48	3.75		

Form G 5.1
Energy Charges for Thermal Generation

Name of the Generating Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station /Unit : _____

S.No.	Particulars	Units	2019-20			
			Approved in Tariff Order	Audited	Normative	Truing Up requirement
1	2	3	4	5	6	7
1	Operational Parameters					
1.1	Total Capacity	MW				
1.2	Availability	%				
1.3	PLF	%				
1.4	Gross Generation	MU				
1.5	Auxiliary Energy Consumption	%				
1.6	Auxiliary Energy Consumption	MU				
1.7	Net Generation	MU				
1.8	Heat Rate	kcal/kWh				
2	Fuel Parameters (for each primary and secondary fuel)					
2.1	Gross Calorific Value					
2.1.1	Fuel 1-----	kcal/unit				
2.2	Landed Fuel Price per unit (Please specify the fuel)					
2.2.1	Fuel 1-----	Rs/unit				
3	Fuel Consumption and Heat Contribution (for each fuel separately)					
3.1	Specific Fuel Consumption					
3.1.1	Fuel 1-----	unit/kWh				
3.2	Total Fuel Consumption					

Form G 5.1
Energy Charges for Thermal Generation

Name of the Generating Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station /Unit : _____

S.No.	Particulars	Units	2019-20			
			Approved in Tariff Order	Audited	Normative	Truing Up requirement
1	2	3	4	5	6	7
3.2.1	Fuel 1-----	unit				
3.3	Heat Content (each fuel separately)					
3.3.1	Fuel 1 (2.1.1 x 3.1.1)	Million kcal				
	Total Heat Content					
4	Total Fuel Cost					
4.1.1	Fuel 1----- (2.2.1 x 3.2.1)	Rs Crore				
	Total Fuel Cost	Rs Crore				
5	Other Charges and Adjustments					
5.1.1	Other Charges (pl. specify details)	Rs Crore				
5.1.2	Other Adjustments (Pl. specify details)	Rs Crore				
	Total Other Charges and Adjustments	Rs Crore				
6	Total Cost (4+5)	Rs Crore		5.71		5.71
7	Cost of Generation per unit (at Generation Terminal) (6/1.4)	Rs/kWh				
8	Energy Charge per unit (ex-bus) (6/1.7)					
8.1.1	Fuel 1-----	Rs/kWh				
	Total--(9)	Rs/kWh				

Form G 5.2**Fuel Cost Details for Thermal Generation**

Name of the Generating Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station/Unit : _____

S. No.	Particulars	Units	2019-20		
			Approved in Tariff Order	Audited	Truing Up requirement
1	2	3	4	5	6 = 5 - 4
1	Basic Cost	Rs/unit			
2	Freight	Rs/unit			
3	Freight Surcharge, if applicable	Rs/unit			
4	Fuel Handling Charges	Rs/unit			
5	Taxes and Duties (pl. specify details)	Rs/unit			
6	Any other charges	Rs/unit			
7	Total Price excluding Transit Loss	Rs/unit			
	Transit Loss	%			
	Total Price including Transit Loss	Rs/unit			

Form G 6.1
Fixed assets & provisons for depreciation

Name of the Generating Business/Company **KERALA STATE ELECTRICITY BOARD LTD.**
Name of the Generating Station : _____

Year (n-1)*

(Rs Crore)

S. No.	Particular	Rate of depreciation %	Gross fixed assets for 2019-20				Provisions for depreciation				Net fixed assets at the beginning of the year	Net Fixed Asset at the end of the year
			At the beginning of the year	Additions during the year	Decom. Liability provided for the year	At the end of the year	Cumulative upto the begining of the year	Additions during the year	Adjustment during the year	Cumulative at the end of the year		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Land & land rights	10.1	1495.85	8.80	0.00	1504.65		0.00			1495.85	1504.65
1A	Hydraulic works	10.3	1398.71	2.69	0.00	1401.39	704.90	69.46		774.36	693.80	627.03
2	Building & Civil works of Power plant	10.2+10.4	575.35	40.04	0.01	615.41	259.57	18.36		277.92	315.79	337.48
3	Plant & machinery including sub-station equipments	10.5	13458.10	66.67	0.06	13524.82	1899.57	96.16		1995.73	11558.52	11529.09
4	Communication equipment	10.571,10.572	3.48	0.01	0.00	3.49	3.42	0.01		3.43	0.06	0.06
5	Vehicles	10.7	10.09	0.11	0.00	10.19	6.75	0.77		7.52	3.34	2.67
6	Furniture & fixtures	10.8	4.99	1.22	0.00	6.20	3.49	0.22		3.71	1.49	2.49
7	Office Equipments	10.9	4.55	0.36	0.00	4.92	2.96	0.22		3.18	1.59	1.74
8	Capital spares			0.00	0.00		0.00	0.00		0.00	0.00	0.00
9	IT Equipments	10.905	6.63	0.36	0.00	6.99	5.73	0.22		5.96	0.89	1.03
11	Any other items (Lines, Cable Network etc.)	10.6	7.48	0.89	0.00	8.37	5.22	0.29		5.51	2.26	2.86
	Total (1) to (11)		16965.21	121.16	0.08	17086.45	2891.62	185.71	0.00	3077.33	14073.59	14009.12

Form G 6.2(a)**Calculation of Weighted Average Rate of Interest on Actual Loans**
KERALA STATE ELECTRICITY BOARD LTD.Name of Generating Business/Company
Licensed Area of Supply

(Rs. Cr)

S.No.	Particulars (specify items)	2019-20			Current Year (n)			Ensuing Year (n+1)	Year (n+2)	Year (n+3)	Remarks	
		Approved in Tariff Order	Audited	Truing Up requirement	Apr-Sep (Actual)	Estimated for the year	Approved by the Commission	Projected	Projected	Projected		
1	2	3	4	5 = 4 - 3	6	7	8	9	10	11	12	
1	Loan 1		SEPARATE SHEET ATTACHED									
i.	Gross Loan -Opening											
ii.	Cumulative repayments of Loans upto previous year											
iii.	Net loan-Opening											
iv.	Add: Drawal(s) during the Year											
v.	Less: Repayment (s) of Loans during the year											
vi.	Net loan - Closing											
vii.	Average Net Loan											
viii.	Rate of Interest on Loan on annual basis											
ix.	Interest on loan											
x.	Loan repayment effective from (date to be indicated)											
2	Loan 2											
i.	Gross Loan -Opening											
ii.	Cumulative repayments of Loans upto previous year											
iii.	Net loan-Opening											
iv.	Add: Drawal(s) during the Year											
v.	Less: Repayment (s) of Loans during the year											
vi.	Net loan - Closing											
vii.	Average Net Loan											
viii.	Rate of Interest on Loan on annual basis											
ix.	Interest on loan											
x.	Loan repayment effective from (date to be indicated)											

3	Loan 3										
..	...										
..	...										
4	Total Loan										
i.	Gross Loan -Opening										
ii.	Cumulative repayments of Loans upto previous year										
iii.	Net loan-Opening		926.26								
iv.	Add: Drawal(s) during the Year		732.89								
v.	Less: Repayment (s) of Loans during the year		383.54								
vi	Net loan - Closing		1275.61								
vii	Average Net Loan		1100.94								
viii	Interest on Loan		103.77								
ix	Weighted average Rate of Interest on Loans		9.43%								

Note: In case of Foreign Loans, the calculations in Indian Rupees is to be furnished. However, the calculations in Original currency is also to be furnished separately in the same form
Note: nth year = FY 2014-15, n+1th year = FY 2019-20, and so on, for the first filing under the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2014

TERM-LOAN

SL NO	NAME OF THE FINANCIAL INSTITUTION	Gross Loan - Opening	Cumulative repayments of Loans upto previous year	Net loan-Opening - 01/04/2017	Add: Drawal(s) during the Year	Less: Repayment (s) of Loans during the year	Net loan - Closing - 31/03/2018	CFL	Ind ADJ	Net loan - Closing - 31/03/2017	Rate of Interest on Loan on annual basis	Interest on loan	Loan repayment effective from (date to be indicated)
A	SECURED LOANS TERM LOANS												
	Loan from REC-Thottiyar Gene. Scheme	53.73	0.00	53.73	32.55	4.71	81.58	10.12	0.00	71.45	11.4-11.65%	6.45	
	Special Loan Assistance from REC	332.43	27.70	360.14	27.78	26.49	361.42	29.91	0.00	331.51	0.0908	33.35	
	Loan from REC - Peringalkuthu. Scheme				72.95	0.00	72.95	0.00	0.00	72.95	0%	6.05	
	Loan from REC - Bhoothathankettu Scheme				114.70	0.00	114.70	0.00	0.00	114.70	0%	9.48	
	Loan from SOUTH INDIAN BANK-Barapole SHEP	75.00	6.00	81.00	0.00	6.00	74.99	6.00	0.00	68.99	10%	7.83	
	Loan from RIDF of NABARD Banasurasagar SPVP	0.36	0.09	0.45	0.00	0.00	0.45	0.00	0.00	0.45	6%	0.03	
	Loan from RIDF of NABARD Upper Kallar SHEP	2.89	0.72	3.61	0.00	0.00	3.61	0.00	0.00	3.61	6%	0.23	
	Loan from SBI				190.07	6.34	183.73	19.02	0.00	164.72	0%	4.96	
	Special Loan Assistance from PFC	264.67	19.61	284.28	0.00	35.95	248.33	18.39	0.00	229.93	9%	23.48	
	Loan from PFC GEL Kakkayam	17.21	3.37	20.58	0.00	1.37	19.21	1.37	0.00	17.83	9.75-10.5	3.65	
	Loan from PFC GEL Perumthenaruvi	31.26	5.91	37.17	0.00	2.56	34.61	2.56	0.00	32.05	9.75-10	1.89	
	SUB-TOTAL	777.56	63.40	840.96	438.05	83.43	1195.58	87.38	0.00	1108.20		97.40	
B	UNSECURED LOANS TERM LOANS												
	From Banks												
	Loans - Short Term Loan from State Bank of India (SBI)				60.02	60.02	0.00	0.00	0.00	0.00	0.00	0.00	
	Loans - Short term loan from Vijaya Bank	85.30		85.30	74.76	160.06	0.00	0.00	0.00	0.00	0.09	4.68	
	Loans - Short term loan from Bank of Baroda				160.06	80.03	80.03	0.00	0.00	80.03	0.00	1.69	
	SUB-TOTAL	85.30	0.00	85.30	294.84	300.11	80.03	0.00	0.00	80.03		6.37	
	TOTAL	862.86	63.40	926.26	732.89	383.54	1275.61	87.38	0.00	1188.23		103.77	
C	Bond									9156.31			
	Dam Rehabilitation and Improvement Project (DRIP)	49.21	0.00	49.21	13.59	0.00	62.80	0.00	0.00	62.80	0%	0.00	

Form G 6.2(b)
Calculation of Interest on Normative Loan

Name of Generating Business/ Company
Licensed Area of Supply

KERALA STATE ELECTRICITY BOARD LTD.

(Rs. Cr)

S.No	Particulars (specify items)	2019-20			Remarks
		Approved in Tariff Order	Normative	Truing Up requirement	
1	2	3	4	5 = 4 - 3	12
1	Gross Normative loan - Opening				
2	Cumulative repayment of Normative Loan upto previous year				
3	Net Normative loan - Opening		926.26		
4	Increase/Decrease due to ACE/de-capitalization during the Year		732.89		
5	Repayments of Normative Loan during the year		383.54		
6	Net Normative loan - Closing		1275.61		
7	Average Normative Loan		1100.94		
8	Weighted average Rate of Interest of actual Loans		9.43%		
9	Interest on Normative loan		103.77		

Note: nth year = FY 2014-15, n+1th year = FY 2019-20, and so on, for the first filing under the KSERC (Terms and Conditions for Deten

Form G 6.2 (c)

Interest on Bonds to meet Terminal Liabilities

Name of Generating Business/ Company

KERALA STATE ELECTRICITY BOARD LTD.

(Rs. Cr)

S.No	Particulars (specify items)	2019-20			Remarks
		Approved in Tariff Order	Normative	Truing Up requirement	
1	2	3	4	5 = 4 - 3	12
A	Bond Series 1				
1	Value of Bond		7,329.60	7,329.60	
2	Rate of Interest on Bond		10%	10%	
3	Interest on Bond	732.96	732.96	732.96	
B	Bond Series 2				
4	Value of Bond		3,231.67	3,231.67	
5	Rate of Interest on Bond		9%	9%	
6	Interest on Bond	37.58	33.06	33.06	
C	Bond Series 3				

Form G 6.4**Consolidated report on additions to Fixed Assets during the year**

Name of the Generating Business/Company :

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station :

Sr. No.	Asset Description	Asset Code	2019-20							
			(Actuals/audited)							
			Cost	Interest	Finance Charges	Pre-Operative expenses	Exchange fluctuations	Total	Date of commissioning	
1	2	3	4	5	6	7	8	9	10	
01.	Land & Land Rights	10.1	8.80						8.80	
02.	Buildings	10.2							0.00	
03.	Hydraulic Works	10.3	2.69						2.69	
04.	Other Civil Works	10.4	40.04						40.04	
05.	Plant & Machinery	10.5	66.68						66.68	

Form G 6.4**Consolidated report on additions to Fixed Assets during the year**

Name of the Generating Business/Company :

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station :

06.	Lines, Cable, Network etc.	10.6	0.89					0.89	
07.	Vehicles	10.7	0.11					0.11	
08.	Furniture & Fixtures	10.8	1.22					1.22	
09.	Office Equipments	10.9	0.73					0.73	
	TOTAL		121.16					121.16	

Form G 6.9
Return on Equity/Return on Net Fixed Assets

Name of the Generating Business/Company:

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station :

Rs. Crore

S.No.	Particulars	Reference	2019-20				Remarks
			Approved in Tariff Order	Audited	Normative	Truing Up requirement	
1	2	3	4	5	6	7	14
1	Equity at the beginning of the year			831.27			
2	Capitalisation						
3	Equity portion of capitalisation						
4	Equity at the end of the year			831.27			
	Return Computation						
5	Return on Equity at the beginning of the year	14%*(1)	116.38	116.38		116.38	
6	Return on Equity portion of capitalisation (on pro-rata basis)	14%*(3)/2		0			
7	Total Return on Equity	(5)+(6)	116.38	116.38		116.38	

Form G 6.11
Interest on Working Capital

Name of the Generating Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station :

Rs. Crore

S. No.	Particulars	2019-20				Remarks
		Approved in Tariff Order	Audited	Normative	Truing Up requirement	
1	2	3	4	5	6	13
1	Fuel cost (as per norms)		5.71			
2	Liquid fuel stock (as per norms)		8.68			
3	O & M expenses (as per norms)		189.87			
4	Maintenance Spares (as per norms)					
5	Receivables (as per norms)					
	Total Working Capital					
	Rate of Interest (as per norms)					
	Interest on Working Capital	6.23	8.53		6.59	

Note: nth year = FY 2014-15, n+1th year = FY 2019-20, and so on, for the first filing under the KSERC (Terms and Conditions for D

**Form G 6.13
Inflow Review (Water Year)**

Name of the Generating Business: **Kerala State Electricity Board Ltd.**

Sr. No.	Year	June	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1996-97	614.190	1519.380	1020.470	834.300	735.430	302.990	210.410	127.060	77.630	86.200	83.700	115.960	5727.720
2	1997-98	150.100	1232.260	1049.010	658.180	739.670	922.500	476.930	185.600	113.000	72.740	77.050	108.600	5785.640
3	1998-99	678.700	1476.490	2357.600	1036.910	1243.800	694.700	457.530	157.270	118.000	94.110	96.030	421.890	8833.030
4	1999-00	1046.460	1416.490	973.600	441.590	1198.430	451.570	197.190	130.380	148.000	82.900	104.000	98.600	6289.210
5	2000-01	835.070	946.100	2199.130	789.140	502.590	227.580	198.970	153.050	80.740	47.500	162.210	127.200	6269.280
6	2001-02	1062.210	1765.900	1079.950	501.100	865.140	712.890	231.180	116.030	86.990	81.260	71.060	161.750	6735.460
7	2002-03	489.760	750.900	1255.860	322.190	585.440	391.140	134.130	78.510	63.040	63.210	52.630	81.220	4268.030
8	2003-04	304.740	748.030	916.010	376.530	983.430	325.980	160.000	91.920	78.810	39.280	58.560	426.200	4509.490
9	2004-05	1401.610	986.940	1436.860	510.740	716.440	464.390	208.730	155.270	70.420	72.180	109.300	99.290	6232.170
10	2005-06	569.380	2261.040	1252.980	1475.760	715.880	714.760	442.330	217.850	110.070	170.310	154.370	434.290	8519.020
11	2006-07	725.230	1596.830	1117.810	963.410	1009.560	907.560	253.210	164.440	90.930	111.600	123.390	113.140	7177.110
12	2007-08	1002.940	2797.480	1499.210	1700.290	1095.250	596.390	283.090	140.524	126.850	214.100	180.180	132.230	9768.534
13	2008-09	433.630	1144.880	1358.870	962.980	629.358	297.351	169.300	69.864	44.425	78.414	65.672	115.774	5370.518
14	2009-10	330.869	2023.700	779.469	1147.562	898.700	642.910	242.242	128.347	76.470	81.110	102.159	128.296	6581.834
15	2010-11	800.020	1407.075	1175.575	818.336	921.176	651.470	364.200	167.411	122.624	103.110	208.129	136.990	6876.116
16	2011-12	1236.187	1318.659	1654.185	1192.892	592.550	587.895	262.645	127.970	88.150	90.260	132.780	94.840	7379.013
17	2012-13	340.070	726.860	893.790	744.060	435.670	245.570	102.811	53.308	35.017	76.890	75.527	65.056	3794.629
18	2013-14	1642.940	2392.970	1895.437	1164.500	634.760	441.392	213.842	120.227	68.197	96.717	88.400	180.090	8939.472
19	2014-15	583.250	1678.100	1798.890	1034.020	843.430	540.030	273.580	143.588	79.231	113.477	241.440	255.403	7584.439
20	2015-16	1053.951	1106.827	829.560	614.380	619.180	605.991	420.659	148.697	92.364	86.872	90.835	107.889	5777.203
21	2016-17	582.873	1105.091	748.035	393.751	267.585	152.933	81.911	57.873	40.627	94.900	70.596	107.458	3703.633
22	2017-18	569.72	633.92	1323.47	1269.17	706.25	487.89	326.86	110.03	68.37	113.65	122.90	242.45	5974.67
23	2018-19	1479.306	2499.747	573.390	416.872	599.289	338.191	161.654	87.770	69.704	78.240	85.623	113.400	6503.186
24	2019-20	165.19	695.75	1950.17	1082.66	766.14	473.20	242.43	131.00	58.57	70.38	87.28	118.19	5840.960
	Average	754.100	1426.309	1297.472	852.138	762.715	507.386	254.827	127.666	83.676	92.476	110.159	166.092	6435.015

Form G 6.15
Maintenance Schedule and net hydro capacity available (MW)

Name of the Generating Business/Company:

KERALA STATE ELECTRICITY BOARD LTD.

Name of the Generating Station :

Rs. Crore

Sr. No.	Stations	No. of units and unit size	Installed Capacity under operation (MW)	Maintenance Schedule (MW)												Remarks
				Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Lower Periyart Power House	3x60	180		60				180					60		
2	Idamalayar HEP	2x37.5	75.00									37.5				
3	Sabrigiri HEP	2x60,4x55	340.00	55		60	55							60		
4	Idukki															Attached separately
..	Small hydro															Attached separately
..																
..																
..																
..																
..																
..																
..																
..																
..																
..																
	Average															

Sl. No.	From	To	Remarks
Major Outage of Lower Periyart Power House			
1	08.09.2019	20.09.2019	Total shut down for replacing damaged shear pin of Unit #2 and for tunnel inspection
2	16.05.2019	19.06.2019	Shut down of Unit #2 Generator transformer overhauling and bushing changing work
3	19.01.2020	25.03.2020	Shut down of U#3 for installation of new AVR and Exciter/Trash Rack replacement work at Pambla

Major Outage of Idamalayar HEP

Sl. No.	From	To	Remarks
	09.11.2019	17.01.2019	Unit No.1 Rotor pole Joint connection burned and one pole replaced with new one and machine balancing

VELLATHOOVAL SHEP - MAJOR OUTAGES - 2019-20

Unit No.	Capacity in MW	OUTAGE				Total outage		Brief description of outage
		Start		End		Hr	Minutes	
		Date	Time	Date	Time			
I	1.8	04-01-2019	00:00	31/3/2020	24::00	8760	0	Total Shutdown works - rehabilitation work after the 2018 flood
II	1.8	04-01-2019	00:00	31/3/2020	24::00	8760	0	Total Shutdown works - rehabilitation work after the 2018 flood

PANNIAR HEP - MAJOR OUTAGES - 2019-20

Unit No.	Capacity in MW	OUTAGE				Total outage		Brief description of outage
		Start		End		Hr	Minutes	
		Date	Time	Date	Time			
I	16.2	22-12-2019	08:00	09-03-2020	17:51	1881	51	Total Shutdown works - Control room shifting with new scada, governor, excitation panels,draft tube cone replacement work, annual maintenance work, new cooling water control panel

II	16.2	22-12-2019	8:00	18-02-2020	20:05	1404	5	Total Shutdown works - Control room shifting with new scada, governor, excitation panels, draft tube cone replacement, annual maintenance work new
----	------	------------	------	------------	-------	------	---	--

Neriyamangalam Extension Scheme outage -2019-2020										
1	17.5	18.12.2019	09:00	14.01.2021	00:00	648	0	3000		Annual maintenance
2	17.5									Nil
3	17.5									Nil
NES	25	16.04.2019	08:30	20.05.2019	15:35	823	5	3000		Annual maintenance
		23.01.2020	09:00	03.03.2020	21:42	972	42	3000		Annual maintenance
Pallivasal Major outage for the year 2019-20										
3	5	24.04.2019	09:13	08.05.2019	16:40:00	13.31.27	AM			
5	7.5	17.03.2020	08:45	08.04.2020	19:10	23.01.40	AM			

SENGULAM HEP - MAJOR OUTAGES - 2019-20										
Unit No.	Capacity in MW	OUTAGE				Total outage		Brief description of outage		
		Start		End		Hr	Minutes			
		Date	Time	Date	Time					
I	12.7	01.05.2019	0.00	30.05.2019	19.54	715	59	Annual maintenance		
		18.12.2019	9.00	31.12.2019	24.00	327	0	Annual maintenance		
		01.01.2020	0.00	09.01.2020	14.57	206	57	Annual maintenance		
II	12.7	01.02.2020	0.00	16.02.2020	12.42	372	42	Annual maintenance		
III	12.7	17.02.2020	14.10	29.02.2020	24.00	297	50	Annual maintenance		
		1.3.2020	0.00	9.03.2020	19.08	211	08	Annual maintenance		
IV	12.7	NIL								

MAJOR OUTAGES OF SGHEP					
Sl. No.		From	To	DURATION	Remarks
5	UNIT#2	07-02-2019 13:06	02-03-2019 12:25	551:19:00	L MAINTENANCE
6	UNIT#1	03-03-2019 08:31	27-03-2019 17:47	585:16:00	L MAINTENANCE

U#4 under Shutdown

Year	Sl. No.	KAKKAD		UNIT 2	
		From	To	From	To
2018-2019	1	31.12.2018	23:38 Hrs	1.2019	17:13
	2	12.02.2019	10:13 Hrs	3.2019	15:43
2019-2020	1	01.02.2020	00:08 Hrs	2.2020	18:42
2020-2021	1	04.03.2021	00:42 Hrs	03.2021	24:00

GENERATION CIRCLE MOOLAMATTOM

Sl. No.	From	To	Remarks
IDUKKI HEP			
1	17.07.2019	01.08.2019	U#2 -Planned outage for R&M WORKS
2	2.07.2019	01.08.2019	U#1-Forced outage for runner replacing
3	01.08.2019	01.09.2019	U#2 -Planned outage for R&M WORKS
4	08.08.2019	01.10.2019	U#4 -Planned outage for Annual Maintenace of U#4
5	01.09.2019	01.10.2019	U#2 -Planned outage for R&M WORKS
6	01.10.2019	01.11.2019	U#2 -Planned outage for R&M WORKS
7	21.10.2019	01.11.2019	U#6 -Planned outage for Annual Maintenace of U#6
8	01.11.2019	01.12.2019	U#2 -Planned outage for R&M WORKS
9	18.11.2019	01.12.2019	U#1-Planned outage for Stage 1 shut down,BVC Closed for MIV changing of U#1
10	01.11.2019	22.11.2019	U#6 -Planned outage for Annual Maintenace of U#6
11	01.12.2019	01.01.2020	U#2 -Planned outage for R&M WORKS
12	01.12.2019	17.12.2019	U#3- Planned outage for Stage 1 shut down,BVC Closed for MIV changing of U#1 & Total shut down from 10.12.2019 in connection with R&M Works
13	10.12.2019	21.12.2019	U#4-Planned outage for -TOTAL SHUT DOWN for R& M Works (cooling water bus pipe replacing)
14	10.12.2019	01.01.2020	U#5-Planned outage for TOTAL SHUT DOWN / ANNUAL MAINTENANCE (unit no. 5 operated on 10.12.2019 from14.43 to 21.58 for Tunnel draining)
15	10.12.2019	28.12.2019	U#6-Planned outage for TOTAL SHUT DOWN for R& M Works (cooling water bus pipe replacing)& Some special works under WCS subdivision(MIV servo cylinder maintenance)
16	01.01.2020	01.02.2020	U#2 -Planned outage for R&M WORKS
17	01.02.2020	01.03.2020	U#2 -Planned outage for R&M WORKS
18	01.02.2020	01.03.2020	U#6 -Forced outage for Tripped with heavy smoke and sound(Blasting at LAVT panel)
19	01.02.2020	01.03.2020	U#2 -Forced outage forE&C Break down works
20	01.03.2020	01.04.2020	U#2 -Planned outage for R&M WORKS
21	01.03.2020	01.04.2020	U#2 -Forced outage forE&C Break down works
MSHEP			
1	06.04.2019	09.05.2019	U#1-Replacement of damaged Generator - Gear box coupling

Form G 8

Deviation Analysis

Name of Generation Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

Year : 2019-20

(Rs. Crore)

S. No.	Particulars	Approved	Actual	Deviation	Reason for Deviation	Controllable	Uncontrollable
1	2	3	4	5	6	7	8
A	Expenditure						
1	Variable Costs, including Fuel Cost		5.71	-5.71			
2	1) Depreciation	141.38	185.71	-44.33			
3	Interest on term Loan & Finance charges	120.03	79.32	40.71			
4	Return on Equity	116.38	132.69	-16.31			
5	Tax on ROE						
6	Interest on Working Capital	6.23	8.53	-2.30			
7	O & M Expenses	135.04	205.81	-70.77			
	Additional contribution to Master Trust	10.26		10.26			
9	Others	9.98	11.49	-1.51			
	Amortisation of Intangible Assets		0.33	-0.33			
	Total (A) Expenditure	539.30	629.59	-90.29			
B	Receipts						
1	Revenue from Sale of Power (Tariff income)	505.92	613.28	-107.36			
2	Non Tariff income	33.38	16.30	17.08			
3	Revenue Subsidies, Grants & Subvention from State Govt.						

Form G P&L

Profit & Loss Account

Name of Generation Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

S.No.	Particulars	Ref	Previous Year	Previous Year	Remarks
			2019-20	2018-19	
1	2	3	4	5	6
	I.INCOME				
	a. Revenue from Sale of Power		613.28	586.66	
	b. Revenue Subsidies and Grants				
	c. Other Income		16.30	24.49	
	Total (a+b+c)		629.58	611.15	
	II. EXPENDITURE				
	a. Repairs and Maintenance.		25.48	26.76	
	b. Employee Cost		223.75	225.56	
	c. Administration and General Expenses		26.34	41.81	
	d. Depreciation		185.71	132.23	
	1). Amortisation of Intangible Assets		0.33	0.12	
	e. Interest and Finance charges		153.08	162.67	
	f. Subtotal (a+b+c+d+e)		614.68	589.15	
	g. Less Capitalised Expenses:				
	- Interest & Finance Charges		57.51	34.72	
	- Other Expenses		69.76	97.18	
	h. Other Debits		0.02	(3.65)	
	Change in fair valuation and other adjustments			(1.52)	
	I. Extra Ordinary Items		3.75	3.48	
	j. Fuel cost (Generation of Power)		5.71	3.29	
	Total Expenditure (f-g+h+i+j)		496.89	458.85	
	III. Profit/(Loss) before Tax (I-II)		132.69	152.30	

	IV. Provision for Income Tax				
	V.Net Prior period credits (Charges)			-1.03	
	V.(a). Other Comprehensive Income		-26.90	-60.34	
	VI. Surplus (Deficit)		105.79	92.99	
	VII. Net Assets at the beginning of the year (Less consumer's Contribution)		14073.59	14102.17	
	VIII. Rate of Return (VI / VII)				

Form G BS

Balance Sheet at the end of the year

Name of Generation Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

S.No.	Particulars	Ref	Previous Year	Previous Year	Remarks
			2019-20	2018-19	
1	2	3	4	5	6
	Sources of Funds:				
	(A)Capital Funds:				
	Share Capital (Govt. equity)		831.27	831.27	
	Reserves & Surplus		739.12	600.69	
	Total (A)		1570.39	1431.96	
	(B) Loan from State Government				
	Loan from others :				
	-Secured		10264.51	10685.53	
	-Unsecured		80.03	85.30	
	Total (B)		10344.54	10770.83	
	(C) Contribution, grants & subsidies towards cost of capital assets				
	Provident Fund		72.78	76.36	
			105.66	121.55	

Terminal Benefit Fund		286.40	406.09	
Borrowings for working capital				
Long term Provision & Other Non current Liabilities		-1189.45	1385.19	
Grand total of sources of funds (A+B+C)		11190.32	14191.98	
*Application of Funds:				
A) Fixed assets				
a) Gross fixed assets		17086.45	16965.21	
b) Less accumulated depreciation		3077.33	2891.62	
c) Net Fixed assets((a)-(b))		14009.12	14073.59	
d) Capital works in progress		1584.50	1247.39	
e) Assets not in use				
f) Deferred costs		0.00	108.40	
g) Intangible assets		1.75	0.70	
h) Investments		9.00	9.52	
Other Non current assets		172.19	44.70	
Total (c) +(d)+(e)+(f)+(g)+(h)		15776.56	15484.30	

	B)Subsidy receivable from Government			
	Contribution receivable from State Government towards pension liability			190.86
	C) Net Current Assets			
	(1) Current assets, loans and advances			
	a) Inventories*		8.68	41.63
	b) Receivables against Sale of Power			
	c) Cash & bank balances		30.97	38.90
	d) Loans and advances			9.93
	e) Sundry receivables		-2957.27	56.90
	Total (C)(1)		-2917.62	147.36
	(2) Current liabilities & provisions			
	a) Borrowings for working capital		411.61	492.66
	b) Payments due on Cap. liabilities			
	c) Other current liabilities		1257.01	1137.88
	Total (C)(2)		1668.62	1630.54
	Net Current Assets (C) [(C(1)) - (C(2))]		-4586.24	-1483.18
	Grand Total of Application of funds (A)+(B)+(C)		11190.32	14191.99

Form G CF

Cash Flow for the year

Name of Generation Business/Company

KERALA STATE ELECTRICITY BOARD LTD.

S.No.	Particulars	Ref	Previous Year	Previous Year	Remarks
			2019-20	2018-19	
1	2	3	4	5	6
I	Net Funds from Operations				
1a	Net Funds from Earnings :				
	a) Profit before tax and before revenue subsidies and grants		105.79	92.99	
	Less : Income Tax Payment during the year				
	: Other Comprehensive Income		-26.90	-60.34	
	Total of (a)		132.69	153.33	
	b. Add: Debits to rev. account not requiring cash Flow:				
	I) a) Depreciation		185.71	132.23	
	b) Depreciation on IND As Adj		0.00	0.00	
	ii) Amortisation of Deferred costs				
	iii) Amortisation of Intangible Assets		0.33	0.12	
	iv) Investment Allowance Reserve				
	v) Others, if any		-2574.64	662.81	
	Total of (b)		-2388.60	795.16	
	Net Funds from Earnings (a)+(b)-(c)		-2255.91	948.49	
2	Contributions, Grants & Subsidies to cost of Capital Assets		-3.58	1.05	
4	Proceeds from disposal of fixed Assets				
5	Total Funds from Operations (1+2+3)		-2259.50	949.54	
6	Net Increase/(Decrease) in working Capital				
	(a) Increase/(Decrease) in Current Assets				
	I) Inventories		-32.95	-12.97	
	ii) Receivables against sale of power				

	iii) Loans and Advances		-9.93	9.93
	iv) Sundry receivables		-3014.17	-25.65
	Total of (a)		-3057.05	-28.69
	(b) Increase/(Decrease) in Current liabilities			
	I) Borrowings for working Capital		-81.05	241.93
	ii) Other current liabilities		119.14	833.32
	iii) Others (Increase in Reserve + payment due on cap.liab)		5.74	-69.04
	Total of (b)		43.83	1006.22
	Net Increase/(Decrease) in working Capital (a)- (b)		-3100.88	-1034.90
7	Net Funds from operations before subsidies and Grants (5-6)		841.38	1984.44
8	Receipts from revenue subsidies and Grants		190.86	22.77
	Total Net Funds from operations including subsidies & Grants (7+8)		1032.24	2007.22
II.	Net increase/ decrease in Capital liabilities			
	a. Fresh borrowings			
	I) State Loans			
	ii) Foreign currency Loans / Credits			
	iii) Other borrowings		732.89	12533.01
	Total of (a)		732.89	12533.01
	b) Repayments :			
	I) State Loans			
	ii) Foreign currency Loans / Credits			
	iii) Other borrowings		1159.18	14461.86
	Total of (b)		1159.18	14461.86
	Net Increase/(Decrease) in Capital liabilities (a) - (b)		-426.28	-1928.85
III.	Increase/(Decrease) in equity Capital		0.00	0.00
IV.	Total Funds available for Capital Expenditure (I+II+III)		605.96	78.37
V	Funds utilised on Capital Expenditure			
	a) On projects		458.34	220.16

	b)Advance to Suppliers & Contractors				
	c) Intangible Assets		1.39	0.82	
	d) Deferred Cost		-108.40	2.92	
	e) Long Term Loans and Advances		127.49	-53.76	
	Total of V (a+b+c+d)		478.83	170.13	
VI	Net Increase/(Decrease) in Government contribution				
VII	Net Increase/(Decrease) in Terminal benefit fund		-119.69	101.31	
VIII	Net Increase/(Decrease) in Provident fund		-15.89	5.27	
IX	Net Increase/(Decrease) in investments		-0.52	0.95	
X	Net Increase /(Decrease) in cash / bank balance (IV - V- VI-IX)+ (VII+VIII)		-7.93	13.86	
XI	Add opening cash & Bank balance		38.90	25.03	
XII	Closing Cash & Bank balance		30.97	38.89	

CHAPTER 3: TRUING UP OF ARR OF SBU – T & SLDC FOR 2019-20

3.1 As per the second Transfer Scheme, SBU-T is entrusted with the construction of 33KV and above system of KSEBL. The voltage level wise capacity of Transmission system and number of substations and transmission lines within the State as on 31st March, 2020 is summarized below:

Table-T1: Transmission System statistics			
No	Item	Unit	Quantity (as on 31-3-2020)
1	400 kV Lines	Ckt-km	1244.56*
2	220 kV Lines	Ckt-km	2952.66
3	110 kV Lines	Ckt-km	4797.75
4	66 kV Lines	Ckt-km	2000.75
5	33KV lines	Ckt-km	2057.49
6	400 kV Substations	Nos	5* + 1
7	220 kV Substations	Nos	23
8	110 kV Substations	Nos	166
9	66KV Substations	Nos	68
10	33 KV Substations	Nos	159
11	Total transmission capacity (MVA)	MVA	21182.90
	<i>*PGCIL owned + KSEBL owned Madakkathara-Malaparamba (92 ckt-km)</i>		

3.2 The SBU-T handle total energy sold to consumers and licensees within the state, open access power drawn by the consumers and the quantum energy sold outside the state. The ARR, ERC and Transfer cost to SBU-T are furnished as per Form T P&L and Form T1. Transfer price for SBU T as per accounts has been Rs. 1037.63 Cr against approval of Rs. 983.69 Cr. Net ARR in line with the Tariff Regulation sought for true up in this petition amounts to Rs.909.89 Cr, which is less by Rs.73.80 Cr approved as detailed in table below. Item wise explanation is furnished thereafter.

TABLE – T2 : ARR OF TRANSMISSION BUSINESS UNIT (SBU-T) & SLDC for 2019-20 (Rs Cr)					
No	Particulars	Approved	Actual	Truing up requirement	Variation
1	Interest & Finance Charges	185.05	84.36	109.86	75.19
2	Depreciation	173.47	235.46	162.70	10.77
3	O&M Expenses	397.46	488.39	386.87	10.59
4	Provision for pay revision	0.00		29.50	-29.50
5	GPF Interest	22.03	16.90	16.90	5.13
6	Return on equity (14%)	119.99	190.86	119.99	0.00
7	Interest on unfunded Master Trust liability	82.95	72.35	72.35	10.60
8	Additional contribution to Master Trust	22.64		22.64	0.00
9	Interest on working capital	17.40	18.68	17.12	0.28
10	Other expenses		1.36	1.36	-1.36
11	Exceptional items		0.13	0.13	-0.13
12	Incentive on transmission availability			9.79	-9.79
13	Amortization and interest on compensation paid			1.22	-1.22
14	ARR	1020.99	1108.49	950.43	70.56
15	Less: Non-tariff Income	37.30	70.86	40.54	-3.24
16	Net ARR (Cost Transferred to SBU-D)	983.69	1037.63	909.89	73.80

3.3 Interest and Finance charges:

3.3.1 An amount of Rs 307.43 Cr had been approved by the Hon'ble Commission under this head. The actual expense incurred was Rs.192.29 Cr (net of capitalized interest Rs.37.73 Cr). As per Tariff Regulation, KSEBL is eligible for Rs.216.23 Cr. Item wise explanation is furnished below.

3.3.2 Interest on Normative loan: Hon'ble Commission approved Rs.185.05 Cr for 2019-20 against which Rs. 122.09 Cr (including capitalized interest Rs.37.73 Cr) was actually incurred as per audited accounts. Eligible interest on normative loan amounts to Rs. 109.86 Cr as explained in chapter 5 of this petition.

3.3.3 Capital works executed during 2019-20 by SBU-T was Rs.899.36 Cr, out of which Rs.378.62Cr is capitalized during the year 2019-20. The details are tabulated below.

Table-T3: Details of actual capitalization as per accounts			
Sl. no.	Brief description of the work	Cost incurred during the year	Capitalized
		(Rs Cr)	(Rs Cr)
1	Electrical Transmission schemes	405.03	318.03
2	Power System Development Fund related works	228.08	18.74
3	SCADA upgradation project	0.00	0.42
4	Load Despatch & Communication schemes	7.36	8.47
5	Expenditure due to natural calamity	0.42	0.69
6	CWIP-General	48.78	26.69
7	TRANSGRID 2.0 project	209.70	5.58
	Total	899.36	378.62

3.3.4 Detailed information viz. projects commissioned, part capitalization etc as required to be furnished as per Tariff Regulation are explained in Chapter 5.

3.3.5 The details of the substations and lines commissioned during the year 2019-20 are enclosed as **Annexure- 1**; the summary of the same is given below.

Table-T4 : Summary of Capital Works executed in 2019-20		
No	Item	Quantity
1	400KV lines	92 ckt-km
1	220KV lines	100 ckt-km
2	110KV lines	165.17ckt-km
3	66KV lines	18.7ckt-km
4	33KV lines	53.10ckt-km
5	EHT Substations	12 numbers
6	33KV Substations	6 numbers
7	Capacity addition/enhancement	362MVA

- 3.3.6 **Interest on GPF:** Interest paid on GPF during the year amounts to Rs.171.26 Cr as detailed in chapter 5. The share of interest on GPF for SBU-T along with approved figured is furnished below.

Table-T5: Interest on GPF for SBU-T for 2019-20			
	Approved	Actual	True-up requirement
	Rs. Crore	Rs. Crore	Rs. Crore
SBU-T	22.03	16.90	16.90

- 3.3.7 **Interest on Master Trust Bonds:** Hon'ble Commission, in line with the provision contained in Tariff Regulation, 2018 had approved Rs.82.95 Cr towards interest on Master Trust bonds. Actual expenses for SBU T have been Rs. 72.35 Cr as explained in Chapter 5. Thus, Hon'ble Commission may please approve Rs.72.35 Cr.

- 3.3.8 **Interest on additional bond to Master Trust:** Hon'ble Commission, by virtue of provision contained in Tariff Regulation, 2018 had approved Rs.22.64 Cr towards additional actuarial liability. Hon'ble Commission may kindly true up the provisional amount of Rs.22.64 Cr as detailed in chapter 5.

- 3.3.9 **Interest on Working Capital:** As per the Regulation 32(2), interest on working capital is allowed normatively at a rate equal to two per cent higher than the base rate as on the first day of the financial year in which petition is filed. Hon'ble Commission approved the Interest on Working capital at a rate of 10.15% on the working capital of Rs.171.47 Cr and the interest on working capital approved for SBU-T for 2019-20 is Rs. 17.40 Cr. A comparison of the Interest on Working Capital approved by Hon'ble Commission, actual and the true-up requirement (Rs.17.12 Cr) calculated on normative basis is given below, which may kindly be approved:

Table-T6: Interest on working capital (Rs Cr)			
	Approved	Actual	True up requirement
O&M Expenses	397.46		396.49
Provision for pay revision			29.50
Additional contribution to Master Trust			22.64
O&M Expenses			448.63
GFA Plants and Equipment	5637.86		5544.08
Transmission charges	983.69		909.89
O&M Expenses for one month	33.12		37.39
1% of Historical cost of plants & Equipment	56.38		55.44
Receivables (Transmission charges for one month)	81.97		75.82
Total requirement of working capital	171.47		168.65
Rate of interest	10.15%		10.15%
Interest on Working Capital	17.40	18.68	17.12

3.3.10 **Summary of Interest & Finance charges:** A comparison of the approved and actual values of various items of Interest & Finance charges are given below:

Table- T7 : Summary of Interest and Finance charges (Rs Cr)				
No	Particulars	Approved	Actual	True-up requirement
1	Interest on Outstanding Capital Liabilities	185.05	84.36	109.86
2	Interest on GPF	22.03	16.90	16.90
3	Interest on Master Trust Bonds	82.95	72.35	72.35
4	Interest on Working capital	17.40	18.68	17.12
5	Total	307.43	192.29	216.23

3.4 **O&M Expenses:** As per the provisions of Regulation 58, the O&M expenses applicable for the SBU-T is based on the number of bays and transmission line length in ckt km for the previous year (2018-19). The no. bays and line length and the O&M cost based on the norms approved for 2019-20 and actual are as shown below:

Table-T8: Approved and actual Cost Drivers of Transmission Business for 2019-20		
Item	Approved	Actual
Substation Bays*	2682	2607
Tran Lines***	9823.195	9602.240
* Excluding 33 kV bays *** (in Ckt Kms)		

3.4.1 The O&M cost norm for SBU-T for 2019-20 as per the Regulation and the O&M cost based on the norms amount to Rs.386.87 Cr as submitted below.

Table-T9: O&M of Transmission Business for 2019-20		
Item	Actual	Norm
Substation Bays*	2607	Rs.11.23 Lakh/bay
Tran Lines***	9602.240	Rs.0.98 Lakh/Ckt-km
* Excluding 33 kV bays *** (in CktKms)		
O&M Cost = Rs. (11.23 * 2607 + 9602.240 * 0.98) Lakh = Rs.386.87 Cr		

3.4.2 **O&M Expenses of SLDC:** The details of actual O&M expenses of SLDC for the year 2019-20 are submitted below.

Table-T10 : Components of O&M of SLDC (Rs Cr)					
No	Particulars	Approved	Actual	True-up requirement	Remarks
1	Employee Cost		8.33		See Form S2(a)
2	A&G Expenses		0.59		See Form S2 (b)
3	R&M Expenses		0.70		See Form S2 (c)
4	Sub Total (O&M Expenses)		9.62	9.62	See Form S2 (a)
5	Pay revision provision			0	
6	Total		9.62	9.62	

3.4.3 Hon'ble Commission may kindly note that the pay revision is due from July/ August 2018 and a sum of Rs.250 Cr has been provided on this count as detailed in chapter 5. Therefore, it is humbly requested that Rs. 29.50 Cr may be approved over and above normative O&M expenses of SBU T as detailed below:

Table-T11 : Components of O&M (Rs Cr)					
No	Particulars	Approved	Actual	True-up requirement	Remarks
1	Employee Cost		352.63		See Form T2(a)
2	A&G Expenses		96.70		See Form T2 (b)
3	R&M Expenses		39.06		See Form T2 (c)
4	Sub Total (O&M Expenses)	397.46	488.39	386.87	See Form T2 (a)

3.4.3 Hon'ble Commission may kindly approve Rs. 22.64 Cr and Rs. 29.50 Cr towards additional contribution to Master Trust and provision for pay revision respectively as detailed in Chapter 5 of this petition.

3.4.4 It is respectfully submitted that the O&M expenses as per CERC norms (Regulation 35(3) (a) of CERC (T&C of Tariff) Regulations, 2019) for the above drivers are Rs. 22.51 Lakh per bay (for 220 KV), Rs.0.245 Lakhs per MVA and 0.377 for (Double Circuit single conductor) lines. Thus, the permissible O&M cost as per CERC Regulations would be $(2682 \times \text{Rs. } 22.51 \text{ Lakhs} + 9823.195 \text{ km} \times 0.377 + 0.245 \times 20820.90 =)$ Rs. 691.76 Cr. Therefore, it may kindly be noted that the actual O&M expense of the petitioner (Rs.488.39 Cr) is less by Rs.203.37 Cr in comparison with the cost allowable as per CERC norms.

3.5 Depreciation:

3.5.1 Hon'ble Commission approved depreciation for the year 2019-20 on the provisionally approved asset additions of Rs. 1057.11 Cr for 2019-20. Based on Tariff Regulations; the depreciation for the Transmission assets for the year 2019-20 has been approved at **Rs 173.47 Cr**. Hon Commission may kindly note that the depreciation as per audited accounts was **Rs.235.46 Cr** as detailed in **Form T3**.

3.5.2 Depreciation eligible as per MYT Regulation for the control period 2018-22 has been worked out at Rs. 162.70 Cr as detailed in chapter 5. Comparison of approval, actual and true up requirement is furnished below:

Table-T12: Depreciation (Rs Cr)				
No	Particulars	Approved	Actual	True-up requirement
1	Depreciation	173.47	235.46	162.70

- 3.6 **Return on Equity:** Hon'ble Commission approved Rs.119.99 Cr towards RoE of SBU-T. Same amount is sought for true up in this petition.

Table-T13: Return on Equity (Rs Cr)				
No	Particulars	Approved	Actual	True-up requirement
1	Return on Equity	119.99	190.86	119.99

- 3.7 **Other items and Prior period expenditure:** Other expenses amount to Rs. 1.36 Cr and exceptional items amount to Rs.0.13 Cr for the year 2019-20, as detailed in chapter 5, which may kindly be approved.

3.8 Amortization of intangible assets:

3.8.1 The Government of Kerala, vide G.O.(Ms) No.29/ 2015/ PD dated 30/07/2015 of Power (C) Department, approved a revised Special Compensation Package, meant exclusively for the construction of 400 kV transmission line in the Edmon – Kochi sector, as a special case.

3.8.2 As per the above G.O., payment to be made from GoK/KSEBL shall be worked out and KSEBL shall ensure 25% of this amount is made available to the project team, while starting the work. The project team will issue the cheques in respect of the tower footing area compensation and ex-gratia payment for line corridor directly to the land owners on production of required documents and completion of formalities by the Land Acquisition Units. PGCIL shall replenish the amount payable at periodic intervals depending on the progress of work. *The share of compensation to be borne by Government shall also be replenished by KSEBL on completion of each stage, on the basis of the assessment of requisite amount made by KSEBL. The additional financial liability due to the aforesaid special compensation package, roughly estimated to be around Rs. 1020 Crore will be borne and shared equally by Government of Kerala and Kerala State Electricity Board Limited.* In the first instance, the amount for implementing the special compensation package will be met by KSEBL by availing loan. Government share will be granted subsequently.

3.8.3 Hon'ble Commission, as per order dated 09.08.2019 in OP 58/2018, has provisionally approved 50% of the additional financial liability due to the special compensation package of the 400 KV Edamon - Kochi transmission line as KSEBL's share as per the orders of the Government. KSEBL share of compensation actually paid was allowed to be recovered in 12 years with interest as part of trueing up.

3.8.4 An amount of Rs. 18 Crore has been transferred to the District Collector, Ernakulam during the year 2019-20 as detailed below.

Amount disbursed under Special Compensation Package During 2019-20

Sl.No	Amount	Payment Details	Remarks
1	Rs.5.20 Crore Rs 80 Lakh	Cheque No. 524635 dated 12.04.2019 Cheque No. 582512 dated 25.10.2019	Sanctioned vide B.O.(DB) No.202/D(T&SO)/T2/ Koodamkulam/2018-19 dated 05.03.2019
2	Rs. 12 Crore	Cheque No. 582552 dated 14.11.2019	Sanctioned vide B.O.(FTD) No.762/2019/D (T, SO & S)/T2/ Koodamkulam/2019-20 dated 05.03.2019

3.8.5 Out of the above, Rs.9 Cr has been accounted under Intangible Assets and a sum of Rs. 0.75 Cr amortized during the year as per audited accounts. Details of payment, amortization during the year and interest applicable at weighted average rate of interest during the year are furnished in below:

3.8.6 Thus, a total sum of Rs. 0.75 Cr has been booked as “Amortization of intangible assets” in annual accounts. Hon’ble Commission may kindly note that an amount of Rs. 0.47 Cr towards interest (average interest rate for 2019-20) at 9.56% by virtue of order of the Hon’ble Commission dated 09.08.2019. Hon’ble Commission may kindly approve Rs.0.75 Cr (Rs.9 Cr/12) towards amortization of intangible asset and Rs. 0.47 Cr towards interest as part of truing up for the year 2019-20.

3.9 **Transmission Availability:** The transmission system of KSEBL could achieve an availability of 99.01%. The certificate of SLDC is enclosed as **Annexure-2**. It is respectfully submitted that as per Regulation 56, target availability is 98% and the Transmission licensee is entitled to an incentive on achieving annual availability above the target availability, in line with the following formula: -

$$\text{Incentive} = \frac{\text{Aggregate Revenue Requirements} \times [\text{Annual availability achieved} - \text{Target Availability}]}{\text{Target Availability}}$$

3.9.1 The Regulation further stipulates that the computation of incentive shall be made during truing up for each financial year. Accordingly, SBU-T prays approval of Rs. 9.69 Cr as calculated below.

ARR excluding incentive (Rs Cr)	940.64
Annual availability achieved	99.01%
Target availability	98%
Incentive	ARR*(Annual availability- Target availability)/ Target availability
Incentive for 2019-20 (Rs Cr)	9.69

3.9.2 It is humbly requested that the above incentive amounting to **Rs. 9.69 Cr** may kindly be approved as incentive for SBU-T.

- 3.10 **Non-Tariff Income:** Hon'ble Commission approved Rs. 37.30 Cr under this head against which Rs.70.86 Cr has been accounted as per books. The non-tariff income sought for true up amounts to Rs.40.54 Cr as detailed under chapter 5, which may kindly be approved.
- 3.11 **Net ARR (Transfer Cost) of SBU-T and SLDC :**ARR for Transmission Business Unit for the year 2019-20 had been Rs. 959.57 Cr and total income earned was Rs. 40.54 Cr. Therefore, Net ARR of SBU-T has been Rs. 919.03 Cr. This cost has been considered as the Cost of intra-state Transmission in the ARR of SBU-D.
- 3.12 **Transmission loss:** The total energy *delivered to* the transmission system was 26549.92 MU in FY 2019-20. The losses in the transmission system at different voltage levels are given in the Table below. The actual peak demand met during the year 2019-20 was 4316MW. The losses are segregated based on Load flow studies done up to 33 kV level using computer simulation model in "Mi-Power" Software The methodology adopted for study is similar to that suggested by CEA and Adopted by Forum of regulators (FOR) for loss assessment. Balance losses are attributable to the HT and LT Network. Thus, the actual energy losses in the transmission system were 971.244 MU. The transmission loss approved by Hon'ble Commission for the year 2019-20 and the actual are submitted below.

Table-T15: Transmission Losses					
No	Voltage Level (kV)	Approved (%)	Losses MU	Losses upto the voltage level MU	Actual Losses up to voltage level (%)
1	400		64.07	64.07	
2	220		369.735	433.805	
3	110		354.102	787.907	
4	66		104.559	892.466	
5	33		78.778	971.244	
6	Transmission loss (%)	3.95	971.24		3.70

3.13 Auxiliary consumption of substations of Transmission SBU:

- 3.13.1 Hon'ble Commission had approved an auxiliary consumption of **16.36 MU** for the year 2019-20. The actual auxiliary consumption was **19.60 MU** as tabulated below. The auxiliary consumption in substations comprise of energy required for lighting, air compressors, battery charging, switch gears operating mechanism etc.

Table-T16: Total Auxiliary consumption of Substations (MU)	
April	1.69

May	1.74
June	1.56
July	1.55
August	1.42
September	1.45
October	1.58
November	1.61
December	1.60
January	1.75
February	1.81
March	1.86
Total	19.60

3.13.2 This energy loss is not captured in the transmission losses determined by simulation using load flow software. This energy consumption is actually measured by meters in the respective substations. The energy transferred to SBU-D including sales at EHT level was 25818.69MU after deducting transformer losses and auxiliary consumption.

3.14 The formats for Truing up of Transmission Business Units as per the Tariff Regulation 2018 are provided hereunder.

Annexure-1

Substations and Lines Completed during 2019-20						Added Capacity				Lines added				
Sl. No	Name of Substation	Voltage level (kV)	New / Upgn.	District/LA Constituency	Date of Commng.	33	66	110	220	33	66	110	220	400
1	Olavakkode	33	New	Palakkad/ Palakkad	12.04.2019	10								
2	Eramallur	110	New	Alappuzha/Aroor	20.06.2019			25						
3	Enathu	66	New	Pathanamthitta /Adoor LA	26.6.2019		20							
4	Cherai	110	New	Ernakulam/Vypin Constituency	29.06.2019			25						
5	Vydyuthi Bhavan, TVM	33	New	Thiruvananthapuram/ Vattiyoorkavu	22.07.2019	10								
6	Sreekantapuram	110	upgn	Kannur/Irikkur	28.11.2019			5						
7	Kelakom	33	New	Kannur/Peravoor	02.08.2019	10								
8	Kodungallur	110	upgn	Thrissur/ Kodungallur	24.08.2019			5						
9	Vandanmedu	33	New	Idukki/Udumbanchola	16.09.2019	5								
10	Mala	110	upgn	Thrissur/ Kodungallur	28.09.2019			2.5						
11	Kalarcode	33	New	Alappuzha /Ambalapuzha	01.12.2019	10								
12	Kattanam	66	upgn	Alappuzha/ Kayamkulam	11.12.2019		20							
13	Anchal	110	upgn	Kollam/Punalur	24.12.19			5						
14	Ayur	110	upgn	Kollam/Punalur	30.03.20			5						
15	Manjeri	220	New	Malappuram/Manjeri	10.03.2020				100					
16	Chemberi	110	New	Kannur/Irikkur	31.03.2020			12.5						
17	Mankavu	110	upgn	Kozhikode	30.01.2020			10						
18	Veliyambra	33	New	Kannur/Peravoor	31.03.2020	10								
						55	40	95	100	0	0	0	0	0
Sl. No	Name of Line	Voltage level (kV)	Line length	Remarks										
1	Vydhuthi Bhavanam - Olavakkode ABC Line	33	2.75					2.75						
2	LILO to Ermallur from SL puram - Chellanam line	110	0.5						0.5					
3	Adoor-Enathu SC line	66	11.4					11.4						
4	LILO to Cherai from North Paravur - Edayar line	110	15						15					
5	Medicall College-Vydyuthi Bhavanam UG cable	33	4					4						
6	LILO from Kanhirode-Mattannur line (DC)	110	12.5						12.5					

7	Nedumpoil - Kelakom (UG)	33	10.3							10.3									
8	Chalakkudy - Kodungalloor	110	20.61									20.61							
9	Chalakkudy - Mala	110	12.5									12.5							
10	Nedumkandom - Vandanmedu SC	33	21							21									
11	Kodungallur - Mala	110	7.36									7.36							
12	Punnapra - Kalarcode	33	4.5	1.12.19						4.5									
13	LILO to Kattanam from Mavelikkara - Karunagappally line	66	7.3								7.3								
14	Edamon - Ayoor	110	21									21							
15	Edamon - Anchal	110	12									12							
16	Anchal - Ayoor	110	9									9							
17	Elamkur- Manjeri	110	0.5									0.5							
18	LILO to Mankavu form Nallalam -	110	1									1							
19	Sreekandapuram - Chemberi	110	19.2									19.2							
20	Tap from Mattannur- Kuyiloor line	33	1							0.5									
21	Madakkathara - Malapramba	400	92																92
22	Madakkathara - Malapramba	220	46																46
23	Karukadom - Kothamangalam	220	9																9
24	Karukadom - Kothamangalam	110	9									9							
25	Kaniyambetta - Kuthumunda	110	12.8									12.8							
26	Santhinagar - Pookkottumpadam	33	10							10									
27	Neyyattinkara - Parassala #1	110	11									11							
28	Palakkad – INOX Air (Deposit Work – UG Cable)	110	1.2									1.2							
										53.1	18.7	165.1	7	55	92				

Capacity Addition during 2019-20

Sl. No	Name of Substation	Voltage level (kV)	District	Date of Commng.	Remarks															
1	110 kV Substation, Panoor	110/33	Kannur	28.06.2019						16										
2	33 kV Substation, Melady	33/11	Kozhikode	22.8.2019		5														
3	33 kV Substation, Venjarammoodu	33/11	Thiruvananthapuram	29.07.2019		5														
4	33 kV Substation, Kadakkavoor	33/11	Thiruvananthapuram	24.05.19		3														
5	33 kV Substation, Kadakkavoor	33/11	Thiruvananthapuram	4.06.19		3														

6	33 kV Substation, Kacheri, Attingal	33/11	Thiruvananthapuram	4.06.19		5											
7	33 kV Substation, Poovar	33/11	Thiruvananthapuram	6.08.19		3											
8	110 kV Substation, Medical College	110/3 3	Thiruvananthapuram	27.06.19				16									
	110kV Substation Edathua	110/3 3	Alappuzha	20.04.2019	1 No. 16MVA installed			16									



KERALA STATE ELECTRICITY BOARD Ltd.

Office of the Chief Engineer(Transmission System Operation)

LD Centre, H.M.T.Colony P.O., Kalamassery – 683 503.

Phone: 0484 2555965, 2555950,9496019100 Fax: 0484 2543850

Email : cesoklsy@gmail.com, ceso@kseb.in

No. CESO/EELD I/AEEGS/Tr.Av.Cert/2021-22 / 324 4/05/2021

To

The Dy. Chief Engineer
TRAC, VB, Thiuvananthapuram

Sub:-Certification of availability for 2019-20-reg

Ref:-

CERTIFICATE FOR AVAILABILITY OF KERALA TRANSMISSION SYSTEM

This is to certify that as per records, the availability of Kerala system for the year 2019-2020 is as under.

Transmission Elements	Availability
400kV System	97.63
220kV System	99.02
110kV System	99.09
66kV System	99.19
System Availability	99.01

Deputy Chief Engineer(Grid), In charge

Consolidated system availability for 19-20 voltage wise of Kerala system															
	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20			
400kV	96.56%	99.33%	99.13%	100.00%	94.17%	99.21%	97.87%	95.87%	95.96%	98.71%	97.43%	97.43%	1171.68%	0.9764	97.64
220kV	99.18%	98.14%	99.19%	99.08%	98.70%	99.29%	98.79%	99.10%	99.14%	99.13%	99.18%	99.38%	1188.29%	0.9902	99.024
110kV	99.37%	99.25%	99.32%	99.15%	99.18%	99.21%	98.91%	99.05%	99.22%	98.85%	98.62%	98.99%	1189.14%	0.9909	99.095
66kV	99.35%	99.26%	99.22%	99.06%	99.06%	99.01%	99.29%	99.12%	99.27%	99.27%	99.25%	99.18%	1190.33%	0.9919	99.194
System Availability	99.12%	98.86%	99.23%	99.14%	98.86%	99.19%	98.82%	99.02%	99.07%	98.93%	98.84%	99.09%	1188.18%	0.9901	99.015

**ARR and Tariff Formats
Transmission Business
INDEX**

S.No.	Form No.	Particulars
1	2	3
1	Form T 1	Summary of Aggregate Revenue Requirement
2	Form T 2	Operation and Maintenance Expenses
3	Form T 2(a)	Employee Expenses
4	Form T 2(b)	Administrative & General Expenses
5	Form T 2(c)	Repair & Maintenance Expenses
6	T3	Fixed assets & Depreciation
7	Form T 4(a)	Calculation of Weighted Average Rate of Interest on Actual Loans
8	Form T4(b)	Calculation of Interest on Normative Loan
9	Form T 5	Interest on working capital requirement
10	Form T 6	Other items (Other debits or any other items)
11	Form T 7	Return on Equity/Return on Net Fixed Assets
12	#REF!	#REF!
13	#REF!	#REF!
14	Form T 10	Non-tariff Income
15	#REF!	#REF!
16	#REF!	#REF!
17	Form T 13	Consumer Contribution, Capital Subsidy and Grant
18	Form T 14	Proposed improvement in performance
19	Form T 15	Transmission Losses
20	#REF!	#REF!
21	Form T17	Deviation Analysis

Other Information/Documents		
1	Form T P&L	Profit & Loss Account
2	Form T BS	Balance Sheet at the end of the year
3	Form T CF	Cash Flow for the year
4. Corporate audited/ unaudited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the relevant years.		

Note : Spread sheet financial models (in CD) shall also be submitted along with the application.

Form T 1

Summary of Aggregate Revenue Requirement

Name of Transmission Business/Licensee **KERALA STATE ELECTRICITY BOARD LTD.**

Rs. Crore

S. No.	Particulars	Reference Form No.	Previous Year				Remarks
			2019-20				
			Approved in Tariff Order	Audited	Normative	Truing Up requirement	
1	2	3	4	5	6	7	14
1	Operation & Maintenance Expenses	Form T 2	397.46	488.39	396.49	386.87	
2	Interest and finance charges on long-term loans	Form T4(b)	185.05	84.36		109.86	
3	Interest on Bonds to meet Terminal Liabilities	Form T4 (c)	82.95	72.35		72.35	
4	Depreciation	T3	173.47	235.46		162.7	
5	Interest on Working Capital and deposits from Users of the transmission system	Form T 5	17.4	18.68		17.12	
6	Provison for pay revision					29.5	
7	GPF Interest - Other finance charges		22.03	16.90		16.9	
8	Adjustment for profit/loss on account controllable/uncontrollable factors						
9	Other items	Form T 6		1.36		1.36	
	Amortisation of Intangible Assets					1.22	
	Exceptional items - Flood			0.13		0.13	
	Additional contribution to Master Trust		22.64			22.64	
	Incentive on transmission availability					9.79	
10	Total Revenue Expenditure		901.00	917.62		830.44	
11	Return on Equity	Form T 7	119.99	190.86		119.99	
12	Tax on RoE	#REF!					
13	Aggregate Revenue Requirement (9+10+11)		1020.99	1108.48		950.43	
14	Less: Non Tariff Income	Form T 10	37.30	70.85		40.54	
14	Less: Revenue from Short Term/Medium Term Open Access			0.00		0.00	
15	Less: Income from Other Business						
16	Aggregate Revenue Requirement from Transmission Tariff		983.69	1037.64		909.89	

Form T 2

Operation and Maintenance Expenses

Name of Transmission Business/Licensee

KERALA STATE ELECTRICITY BOARD LTD.

S. No.	Particular	Previous Year				Remarks
		2019-20				
		Approved in Tariff Order	Audited	Normative	Truing Up requirement	
1	2	4	5	6	7	14
1	Bay Basis					
a	Op. Balance of no. of Bays					
b	Addition of no. of Bays during year					
c	Deletion of no. of Bay during year					
d	Cl. Balance of no. of Bays at the end of 2018-19	2682			2607	
e	Average no. of Bays during Year					
f	Applicable O&M cost Norm for Bay :- Rs ____ Lakh/Bay	11.23			11.23	
A	O&M Expense per Bay, Rs L	30118.86			29276.61	
2	ckt-km Basis					
a	Op. Balance of ckt-km					
b	Addition of ckt-km during year					
c	Deletion of ckt-km during year					

Form T 2

Operation and Maintenance Expenses

Name of Transmission Business/Licensee

KERALA STATE ELECTRICITY BOARD LTD.

S. No.	Particular	Previous Year				Remarks
		2019-20				
		Approved in Tariff Order	Audited	Normative	Truing Up requirement	
1	2	4	5	6	7	14
d	Cl. Balance of ckt-km at the end of 2018-19	9823.195			9602.24	
e	Average ckt-km during Year					
f	Applicable O&M cost Norm - Rs ____ Lakh / ckt-km	0.98			0.98	
B	O&M Expense Rs. Lakh	9626.7311			9410.1952	
3	Total O&M Expenses (as per norms) (A+B)	397.455911			386.87	
4	Total O&M Expenses (actual)	T 2(a), T 2(b), T 2(c)	488.52			

Form T 2(a)

Employee Expenses

Name of Transmission Business/Licensee

Rs. Crore

S. No.	Particulars	Previous Year (n-1) - 2019-20			Remarks
		Approved in Tariff Order	Audited	Truing Up requirement	
1	2	4	5	6 = 5 - 4	13
1	Basic Salary		294.50	294.50	
2	Dearness Allowance (DA)		87.52	87.52	
3	House Rent Allowance		5.12	5.12	
4	Conveyance Allowance		0.00	0.00	
5	Leave Travel Allowance		0.02	0.02	
6	Earned Leave Encashment		19.71	19.71	
7	Other Allowances		1.87	1.87	
8	Medical Reimbursement		1.75	1.75	
9	Overtime Payment		0.00	0.00	
10	Bonus/Ex-Gratia Payments		0.99	0.99	
11	Interim Relief / Wage Revision		0.00	0.00	
12	Staff welfare expenses		0.18	0.18	
13	VRS Expenses/Retrenchment Compensation		0.00	0.00	

14	Commission to Directors		0.00	0.00	
15	Training Expenses		0.00	0.00	
16	Payment under Workmen's Compensation Act		0.07	0.07	
17	Net Employee Costs		411.73	411.73	
18	Terminal Benefits			0.00	
18.1	Provident Fund Contribution			0.00	
18.2	Provision for PF Fund			0.00	
18.3	Pension Payments			0.00	
18.4	Gratuity Payment			0.00	
18.5	Annual Contribution for Terminal Liabilities based on actuarial valuation			0.00	
	Contribution of KSEB Ltd towards National Pension Scheme		2.16	2.16	
19	Others		0.04	0.04	
20	Gross Employee Expenses		413.92	413.92	
21	Less: Expenses Capitalised		61.29	61.29	
22	Net Employee Expenses		352.63	352.63	

Form T 2(b)

Administrative & General Expenses

Name of Transmission Business/Licensee

Rs. Crore

S. No.	Particulars	Previous Year (n-1) - 2019-20			Remarks
		Approved in Tariff Order	Audited	Truing Up requirement	
1	2	4	5	6 = 5 - 4	13
1	Rent Rates & Taxes		0.56	0.56	
2	Insurance		-0.29	-0.29	
3	Telephone & Postage, etc.		1.29	1.29	
4	Legal charges		0.46	0.46	
5	Audit Fees		0.13	0.13	
6	Consultancy charges		0.00	0.00	
7	Other Professional charges		0.74	0.74	
8	Conveyance		7.10	7.10	
9	Vehicle Running Expenses Truck / Delivery Van		0.15	0.15	
10	Vehicle Hiring Expenses Truck / Delivery Van		0.19	0.19	
11	Electricity charges		-2.38	-2.38	
12	Water charges		0.15	0.15	
13	Entertainment		0.28	0.28	
14	Fees & subscription		0.37	0.37	
15	Printing & Stationery		1.04	1.04	
16	Advertisements, exhibition publicity		0.13	0.13	
17	Contribution/Donations		0.26	0.26	
18	Training expenses		0.02	0.02	
19	Miscellaneous Expenses		0.69	0.69	
20	DSM activities		0.00	0.00	
21	SRPC expenses		0.25	0.25	
22	Sports and related activities		0.10	0.10	
23	Freight		1.33	1.33	
24	Purchase Related Advertisement Expenses		0.74	0.74	
25	Bank Charges		0.00	0.00	
26	Office Expenses		80.24	80.24	
27	License Fee and other related fee		1.45	1.45	
28	Cost of services procured		0.00	0.00	
29	Outsourcing of metering and billing system		0.00	0.00	
30	V-sat, Internet and related charges		0.06	0.06	
31	Security arrangements		0.00	0.00	
32	Books & periodicals		0.02	0.02	
33	Computer Stationery		0.00	0.00	
34	Others		0.89	0.89	
	Others- Other Purchase related Expenses		1.61	1.61	
35	Gross A&G Expenses		97.54	97.54	
36	Ele. Duty u/s 3(I), KED Act		0.00		
37	Less: Expenses Capitalised		0.83	0.83	
38	Net A&G Expenses		96.70	96.70	

Form T 2(c)

Repair & Maintenance Expenses

Name of Transmission Business/Licensee

Rs. Crore

S. No.	Particulars	Previous Year (n-1)- 2019-20				Remarks
		Approved in Tariff Order	Audited	Flood (Exceptional Items)	Truing Up requirement	
1	2	4	5		6 = 5 - 4	13
1	Plant & Machinery		23.17	0.07	23.24	
2	Buildings		2.72	0.00	2.72	
3	Civil Works		5.19	0.00	5.19	
4	Hydraulic Works		0.15	0.00	0.15	
5	Lines & Cable Networks		6.55	0.05	6.60	
6	Vehicles		0.82		0.82	
7	Furniture & Fixtures		0.11		0.11	
8	Office Equipment		0.34		0.34	
9	Gross R&M Expenses		39.06	0.13	39.19	
10	Less: Expenses Capitalised					
11	Net R&M Expenses		39.06	0.13	39.19	

Form T 3

Fixed assets & Depreciation

Name of Transmission Business/Licensee
Year (n-1)*

KERALA STATE ELECTRICITY BOARD LTD.
2019-20

Rs. Crore

S.No.	Assets Group (as per notification in respect of depreciation)	Rate of depreciation	Gross fixed assets				Provisions for depreciation				Net fixed assets at the beginning of the year	Net fixed assets at the end of the year
			At the beginning of the year	Additions during the year	Decom. Liability for the year	At the end of the year	Cumulative upto the beginning of year	Additions during the year	Adjustment during the year	Cumulative at the end of year		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Land & land rights	10.1	275.51	4.77	0.00	280.28	0.00	0.00		0.00	275.51	280.28
2	Other Civil works	10.4	447.43	26.39	0.03	473.84	145.03	15.41		160.44	302.39	313.40
3	EHV			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
a)	Transmission lines	10601	1214.55	97.56	0.10	1312.21	722.68	65.50		788.18	491.87	524.03
b)	Sub-station equipments	10543	1067.39	1.91	0.08	1069.38	520.51	52.98		573.48	546.88	495.90
i)	Transformers	10541	922.41	1.08	0.06	923.55	517.74	39.04		556.77	404.68	366.78
ii)	Switchgears, Control gear & Proteciton	10561	60.55	1.86	0.00	62.41	30.55	1.60		32.15	30.00	30.26
iii)	Batteries	10563	25.84	7.86	0.00	33.70	22.38	1.03		23.41	3.46	10.29
iv)	Others	10.5	179.41	72.29	0.01	251.71	176.47	7.08		183.55	2.94	68.16
4	HV & LT			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
a)	Transmission lines	10.6	790.70	56.96	0.06	847.72	457.28	29.90		487.18	333.42	360.54
b)	Sub-station equipments			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
i)	Transformers	10542	73.64	76.97	0.01	150.62	109.32	2.61		111.93	-35.68	38.69
ii)	Switchgears, Control gear & Proteciton			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
iii)	Batteries			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
iv)	Others			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
5	Communication equipment	10571,72	77.04	4.30	0.00	81.35	54.90	4.70		59.60	22.14	21.74
6	Meters	10631	12.85	0.02	0.00	12.87	11.54	0.04		11.58	1.31	1.29
7	Vehicles	10.7	7.57	0.25	0.00	7.82	5.66	0.40		6.06	1.91	1.76
8	Furniture & fixtures	10.8	6.47	0.62	0.00	7.09	4.52	0.31		4.84	1.94	2.25
9	Office Equipments	10.9	4.75	0.64	0.00	5.39	2.55	0.28		2.82	2.20	2.57
10	Assets of Partnership projects etc.			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
11	Capital spares of			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
a)	EHV transmission			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
b)	HV & LT transmissison			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
12	Assets taken over & pending final valuation			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
13	IT equipments	10.905	8.54	1.36	0.00	9.89	6.76	0.57		7.34	1.77	2.56

Form T 3

Fixed assets & Depreciation

	Buildings	10.2	358.98	22.80	0.00	381.78	158.72	12.36		171.09	200.26	210.69
14	Any other items (Hydraulic Works)	10.3	10.46	0.62	0.00	11.09	15.30	0.58		15.88	-4.84	-4.79
15	Gross Asset (Total (1) to (14))		5544.08	378.27	0.35	5922.70	2961.91	234.39	0.00	3196.31	2582.17	2726.40
16	Less: Consumer contribution	55.1	79.08	58.86	13.70	124.24					79.08	124.24
17	Less: Government grants	55.2&.3	315.90	101.18	18.15	398.93					315.90	398.93
18	Less: Deposit Works		0.00			0.00					0.00	0.00
19	Less: Capital Subsidies	55.4	42.92	1.64	2.49	42.07					42.92	42.07
	Less: Contribution from Public	55.5	1.16	0.00	0.08	1.08					1.16	1.08
20	Net Asset considered for depreciation (15-16-17-18-19)		5105.03	161.68	34.42	5356.39					2143.11	2160.08

Form T 4(a)**Calculation of Weighted Average Rate of Interest on Actual Loans**Name of Transmission Business/Licensee
Licensed Area of Supply

KERALA STATE ELECTRICITY BOARD

S.No	Particulars (specify items)	Previous Year (n-1) 2019-20			
		Approved in Tariff Order	Audited	Truing Up requirement	
1	2	4	5	6 = 5 - 4	
1	Loan 1		SEPARATE SHEET ATTACHED		
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening				
iv.	Add: Drawal(s) during the Year				
v.	Less: Repayment (s) of Loans during the year				
vi.	Net loan - Closing				
vii.	Average Net Loan				
viii.	Rate of Interest on Loan on annual basis				
ix.	Interest on loan				
x.	Loan repayment effective from (date to be indicated)				
2	Loan 2				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening				
iv.	Add: Drawal(s) during the Year				
v.	Less: Repayment (s) of Loans during the year				
vi.	Net loan - Closing				
vii.	Average Net Loan				
viii.	Rate of Interest on Loan on annual basis				
ix.	Interest on loan				
x.	Loan repayment effective from (date to be indicated)				
3	Loan 3				
..	...				
..	...				
4	Total Loan				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening		1195.66		
iv.	Add: Drawal(s) during the Year		845.28		
v.	Less: Repayment (s) of Loans during the year		550.99		
vi.	Net loan - Closing		1489.95		
vii.	Average Net Loan		1342.81		
viii.	Interest on Loan		122.09		
ix.	Weighted average Rate of Interest on Loans		9.09%		

TERM LOAN

SL NO	NAME OF THE FINANCIAL INSTITUTION	Gross Loan Opening	Cumulative repayments of Loans upto previous	Net loan-Opening - 01/04/2018	Add: Drawal(s) during the Year	Less: Repayment (s) of Loans during the year	Net loan - Closing - 31/03/2019	CFL	Ind ADJ	Net loan - Closing - 31/03/2019	Average Net Loan	Rate of Interest on Loan on annual basis	Interest on loan	Loan repayment effective from (date to be indicated)
A	SECURED LOANS TERM LOANS													
1	Loan from REC-TRAN-Group I	57.40	12.25	69.65	23.15	7.82	84.97	7.51	0.00	77.46		10-10.5%	8.58	
2	Loan from REC-TRAN.Kattakkada -Pothencode Schem	82.20	18.12	100.32	0.00	13.14	87.19	14.33	0.00	72.85		11.5%	10.69	
3	Loan from SBI				286.74	9.56	277.18	28.69	0.00	248.49		0	7.48	
4	Special Loan Assistance from PFC	372.03	27.56	399.58	2.80	27.75	374.63	27.75	0.00	346.88		9%	35.42	
5	Special Loan Assistance from REC	467.27	38.94	506.21	79.00	39.96	545.25	45.12	0.00	500.13		0.0908	50.31	
	SUB-TOTAL	978.90	96.87	1075.77	391.69	98.24	1369.22	#####	0.00	1245.82			112.48	
B	UNSECURED LOANS TERM LOANS													
1	Loans - Short Term Loan from State Bank of India (SBI)				90.55	90.55	0.00	0.00	0.00	0.00		0	0.00	
2	Loans - Short term loan from Vijaya Bank	119.89		119.89	121.57	241.47	0.00	0.00	0.00	0.00		0.087	7.05	
3	Loans - Short term loan from Bank of Baroda				241.47	120.73	120.73	0.00	0.00	120.73			2.55	
	SUB-TOTAL	119.89	0.00	119.89	453.59	452.75	120.73		0.00	120.73			9.61	
	TOTAL	1098.79	96.87	1195.66	845.28	550.99	1489.95		0.00	1366.55			122.09	

4	KIIFB for Trans Grid 2.0 Projects	41.07	0.00	41.07	263.74	0.00	304.81	0.00	0.00	304.81		0	0.00	
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Form T4(b)

Calculation of Interest on Normative Loan
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Name of Transmission Business/Licensee
Licensed Area of Supply

KERALA STATE ELECTRICITY BOA

S.No	Particulars (specify items)	Previous Year (n-1)		2015-
		Approved in Tariff Order	Normative	19
1	2	4	5	6 = 5 - 4
1	Gross Normative loan - Opening			
2	Cumulative repayment of Normative Loan upto previous year			
3	Net Normative loan - Opening		1195.66	
4	Increase/Decrease due to ACE/de-capitalization during the Year		845.28	
5	Repayments of Normative Loan during the year		550.99	
6	Net Normative loan - Closing		1489.95	
7	Average Normative Loan		1342.81	
8	Weighted average Rate of Interest of actual Loans		9.09%	
9	Interest on Normative loan		122.09	

Form T4(c)

Interest on Bonds to meet Terminal Liabilities

Name of Transmission Business: KERALA STATE ELECTRICITY BOARD LTI
 Licensed Area of Supply

S.No	Particulars (specify items)	2019-20		
		Approved in Tariff Order	Normative	Truing Up requirement
1	2	3	4	5 = 4 - 3
A	Bond Series 1			
1	Value of Bond	7329.6	7,329.60	7,329.60
2	Rate of Interest on Bond		10%	10%
3	Interest on Bond	732.96	732.96	732.96
B	Bond Series 2			
4	Value of Bond		3,231.67	3,231.67
5	Rate of Interest on Bond		9%	9%
6	Interest on Bond	82.95	72.35	72.35
C	Bond Series 3			
	...			

Form T 5

Interest on working capital requirement

Name of Transmission Business/Licensee

KERALA STATE ELECTRICITY BOARD LTD.

Rs. Crore

Sl. No.	Particulars	Previous Year				Remarks
		2019-20				
		Approved in Tariff Order	Audited	Normative	Truing Up requirement	
1	2	3	4	5	6	13
1	O&M expenses (as per norms)	397.46	488.52	396.49	448.63	
2	Maintenance Spares (as per norms)	56.38			55.44	
3	Receivables calculated on target availability (as per norms)	81.97			75.49	
	Less					
4	Amount, if any, held as security deposits except security deposits held in the form of Bank Guarantees from Users of the transmission system					
5	Total Working Capital	171.47			168.65	
6	Interest Rate (as per norms)	10.15%			10.15%	
7	Interest on Working Capital	17.40	18.68		17.12	

Form T 6

Other items (Other debits or any other items)

Name of Transmission Business/Licensee

KERALA STATE ELECTRICITY BOARD

S. No.	Particulars (specify items)	Previous Year			Remarks
		2019-20			
		Approved in Tariff Order	Audited	Truing Up requirement	
1	2	3	4	5 = 4 - 3	12
A1	Material Cost Variance		1.19		
2	Research and Development Expenses				
3	Cost Of Trading/Manufacturing Activity				
3	Miscellaneous Losses and Write Offs		0.17		
4	Loss/(compensation) on account of flood cyclone etc				
	Total		1.36		
	Less				
B	Chargeable to Capital Expenses				
	Net chargeable to revenue(A-B)		1.36		

Form T 7

Return on Equity/Return on Net Fixed Assets

Name of Transmission Business/Licensee

KERALA STATE ELECTRICITY BOARD LTD.

S.No.	Particulars	Ref.	Previous Year				Remarks
			2019-20				
			Approved in Tariff Order	Audited	Normative	Truing Up requirement	
1	2	3	4	5	6	7	14
1	Equity at the beginning of the year			857.05		857.05	
2	Capitalisation						
3	Equity portion of capitalisation			0.00		0.00	
4	Equity at the end of the year			857.05		857.05	
	Return Computation						
5	Return on Equity at the beginning of the year	14%*(1)		119.99		119.99	
6	Return on Equity portion of capitalisation	14%*(3)/2		0.00		0.00	
7	Total Return on Equity	(5)+(6)		119.99		119.99	

Form T 10

Non-tariff Income

Name of Transmission Business/Licensee

KERALA STATE ELECTRICITY BOARD LTD.

S.No	Particulars	Previous Year			Remarks
		2019-20			
		Approved in Tariff Order	Audited	Truing Up requirement	
1	2	3	4	5 = 4 - 3	12
	Non Tariff Income				
1	Interest on staff loans and advances			0.00	
2	Income from statutory investments			0.00	
3	Income from rent of land or buildings		0.98	0.98	
4	Income from sale of scrap		11.06	11.06	
5	Income from staff welfare activities			0.00	
6	Rental from staff quarters		0.10	0.10	
7	Excess found on physical verification		0.01	0.01	
8	Interest on investments, fixed and call deposits and bank balances		2.50	2.50	
9	Interest on advances to suppliers/contractors		2.01	2.01	
10	Income from hire charges from contractors and others			0.00	
11	Income due to right of way granted for paying fibre optic cables/co-axial cables on transmission system			0.00	
12	Income from advertisements, etc.			0.00	
13	Miscellaneous receipts		23.88	23.88	
14	Interest on delayed or deferred payment of bills			0.00	
15	Clawback of Grant		30.33		
	...				
	Total Non-Tariff Income		70.86	40.54	

Form T 13

Consumer Contribution, Capital Subsidy and Grant

Name of Transmission Business/Licensee

KERALA STATE ELECTRICITY BOARD I

S. No.	Particulars	Previous Year		
		2019-20		
		Approved in Tariff Order	Audited	Truing Up requirement
1	2	3	4	5 = 4 - 3
1	Consumer's Contribution for service connection lines and associated wiring		153.23	
2	Any other Contribution by consumers or for consumers under any scheme.			
a)				
b)				
c)				
3	Sub-Total		153.23	
4	Subsidies towards cost of Capital Asset		50.39	
5	Grant towards cost of Capital Assets		446.67	
6	Amount received from State Govt. under any scheme as grant /subsidy			
7	Total		650.30	

Form T 14

Proposed improvement in performance

Name of Transmission Business/Licensee

S.No.	Paritculars	Performance parameters	Remarks
		Actual for the previous year	
		2019-20	
1	2	3	8
1	EHV Trransmission losses	3.70%	
2	System availability		
a)	400 kV System	97.63%	
b)	220 kV System	99.02%	
c)	132 kV System	99.09%	
d)	66 kV System	99.19%	
e)	33 kV System		
	Total System Availability	99.01%	

Form T 15

Transmission Losses

Name of Transmission Business/Licensee
Year (n-1)*

KERALA STATE ELECTRICITY BOARD LTD.

S.no.	Particulars	Unit	Previous Year (n-1)			Remarks
			Approved in Tariff Order	Audited	Truing Up requirement	
1	2	3	4	5	6 = 5 - 4	13
1	Energy input into the systrem					
(a)	Energy from the sources Inside the State (T-G interface)	MU				
(b)	Energy from the sources outside the State (State Periphery	MU				
(c)	Total (a)+(b)	MU				
2	Energy transmitted to Discoms (including their direct EHT consumers being fed from Grid SS)	MU				
3	Energy transmitted to open access consumers	MU				
4	Energy transmitted for inter-state sale	MU				
5	Intra-State transmission losses (1(c)-(2+3+4))/1(c)				3.7	

Form T 17

Deviation Analysis

Name of Transmission Business/Licensee
Licensed Area of Supply

KERALA STATE ELECTRICITY BOARD LTD.

Year : 2019-20

(Rs. Crore)

S. No.	Particulars	Approved	Actual	Deviation	Reason for Deviation	Controllable	Uncontrollable
1	2	3	4	5	6	7	8
1	Operation & Maintenance Expenses	397.46	488.52				
2	Interest and finance charges on long-term loans	185.05	84.36				
3	Interest on Bonds to meet Terminal Liabilities	82.95	72.35				
4	Depreciation	173.47	234.39				
5	Interest on Working Capital and deposits from Users of the transmission system	17.4	18.68				
6	Contribution to contingency reserves						
7	Other items						
8	Adjustment for profit/loss on account controllable/uncontrollable factors						
9	Other items		1.36				
	Amortisation of Intangible Assets		1.07				
	Other Finance Charges-GPF	22.03	16.90				

Form T 17

Deviation Analysis

Name of Transmission Business/Licensee	KERALA STATE ELECTRICITY BOARD LTD.
Licensed Area of Supply	

	Additional contribution to Master Trust	22.64	0.00			
10	Total Revenue Expenditure	901.00	917.63	0.00		
11	Return on Equity	119.99	190.86			
12	Tax on RoE					
13	Aggregate Revenue Requirement (9+10+11)	1020.99	1108.49			
D	Revenue					
1	Revenue from sale of electricity	983.69	1037.63			
2	Less: Non Tariff Income	37.3	70.86			
3	Less: Revenue from Short Term/Medium Term Open Access					
4	Less: Income from Other Business					

Form T P&L**Profit & Loss Account**

Name of Transmission Business: KERALA STATE ELECTRICITY BOARD LTD.

S.No.	Particulars	Ref	Previous Year	Previous Year	Remarks
			2019-20	2018-19	
1	2	3	4	5	6
	I.INCOME				
	a. Revenue from Sale of Power		1037.63	1068.69	
	b. Revenue Subsidies and Grants				
	c. Other Income		70.86	56.45	
	d. Claw back of Grant				
	Total (a+b+c)		1108.49	1125.13	
	II. EXPENDITURE				
	a. Repairs and Maintenance.		39.06	43.80	
	b. Employee Cost		413.92	402.71	
	c. Administration and General Expenses		97.54	108.49	
	d. Depreciation		234.39	239.31	

T P&L

	1). Amortisation of Intangible Assets		1.07	0.12	
	e. Interest and Finance charges		230.02	230.96	
	Purchase of Power				
	f. Subtotal (a+b+c+d+e)		1016.00	1025.38	
	g. Less Capitalised Expenses:				
	- Interest & Finance Charges		37.73	23.3464095	
	- Other Expenses		62.12	64.49	
	h. Other Debits		1.35	-2.10	
	Change in fair valuation and adjustments			0.08	
	I. Extra Ordinary Items		0.13	0.30	
	Total Expenditure (f-g+h+i)		917.63	935.83	
	III. Profit /(Loss) before Tax (I-II)		190.86	189.30	
	IV. Provision for Income Tax				
	V. Net Prior period credits (Charges)			-0.01	
	V.(a). Other Comprehensive Income		-58.86	-112.05	
	VI. Surplus (Deficit)		131.99	77.26	
	VII. Net Assets at the beginning of the year (Less consumer's Contribution)		2143.11	2267.30	
	VIII. Rate of Return (VI/ VII)				

Form T BS

Balance Sheet at the end of the year

Name of Transmission Business/Licensee KERALA STATE ELECTRICITY BOARD LTD.

S.No.	Particulars	Ref	Previous Year	Previous Year	Remarks
			2019-20	2018-19	
1	2	3	4	5	6
	Sources of Funds:				
	(A)Capital Funds:				
	Share Capital (Govt. equity)		857.05	857.05	
	Reserves & Surplus		322.57	144.82	
	Total (A)		1179.62	1001.87	
	(B) Loan from State Government				
	Loan from others :				
	-Secured		1245.81	1019.97	
	-Unsecured		120.73	119.89	
	Total (B)		1366.54	1139.86	

	(C) Contribution, grants & subsidies towards cost of capital assets		572.58	447.58	
	Provident Fund		231.26	225.72	
	Terminal Benefit Fund		626.82	754.11	
	Borrowings for working capital				
	Long term Provision & Other Non current Liabilities		-3502.41	-1072.18	
	Grand total of sources of funds (A+B+C)		474.42	2496.96	
	*Application of Funds:				
	A) Fixed assets				
	a) Gross fixed assets		5922.70	5544.08	
	b) Less accumulated depreciation		3196.31	2961.91	
	c) Net Fixed assets((a)-(b))	*	2726.40	2582.17	
	d) Capital works in progress		1156.43	635.71	
	e) Assets not in use				
	f) Deferred costs			0.01	
	g) Intangible assets		10.00	0.70	
	h) Investments		7.49	5.31	
	Other Non current assets		343.03	129.72	
	Total (c) +(d)+(e)+(f)+(g)+(h)		4243.35	3353.61	

	B)Subsidy receivable from Government				
	Contribution receivable from State Government towards pension liability			354.43	
	C) Net Current Assets				
	(1) Current assets, loans and advances				
	a) Inventories*		121.12	97.06	
	b) Receivables against transmission charges			0.00	
	c) Cash & bank balances		20.02	30.87	
	d) Loans and advances			12.96	
	e) Sundry receivables		-2337.03	98.97	
	Total (C)(1)		-2195.90	239.86	
	(2) Current liabilities & provisions				
	a) Security Deposits from Consumers				
	b) Borrowings for working capital		578.56	692.48	
	c) Payments due on Cap. liabilities				
	d) Other current liabilities		994.47	758.46	
	Total (C)(2)		1573.03	1450.94	
	Net Current Assets (C) [(C(1)) - (C(2))]		-3768.92	-1211.09	
	Grand Total of Application of funds (A)+(B)+(C)		474.42	2496.95	

Form T CF

Cash Flow for the year

Name of Transmission Business/Licensee _____

S.No.	Particulars	Ref	Previous Year	Previous Year	Remarks
			2019-20	2017-18	
1	2	3	4	5	6
I	Net Funds from Operations				
1a	Net Funds from Earnings :				
	a) Profit before tax and before revenue subsidies and grants		131.99	77.26	
	Less : Income Tax Payment during the year				
	: Other Comprehensive Income		-58.86	-112.05	
	Total of (a)		190.86	189.31	
	b. Add: Debits to rev. account not requiring cash Flow:				
	I) a) Depreciation		234.39	239.31	
	b) Depreciation on Assets capitalised in the initial BS of the IND As Accounts		0.00	0.00	
	ii) Amortisation of Deferred costs				
	iii) Amortisation of Intangible Assets		1.07	0.12	
	iv) Investment Allowance Reserve				
	v) Others, if any		-2430.23	-416.36	
	Total of (b)		-2194.76	-176.93	
	c. Less : Credits to revenue Account not involving cash receipts				

	I) Deprecation				
	ii) Subsidies receivables				
	iii) Revenue gap				
	Total of (c)		0.00	0.00	
	Net Funds from Earnings (a)+(b)-(c)		-2003.91	12.38	
2	Contributions, Grants & Subsidies to cost of Capital Assets		125.01	260.51	
3	Security Deposit from consumers				
4	Proceeds from disposal of fixed Assets				
5	Total Funds from Operations (1+2+3+4)		-1878.90	272.89	
6	Net Increase/(Decrease) in working Capital				
	(a) Increase/(Decrease) in Current Assets				
	I) Inventories		24.06	55.31	
	ii) Receivables against transmission charges				

	iii) Loans and Advances		-12.96	12.96
	iv) Sundry receivables		-2436.00	26.01
	v)Subsidy receivables			
	Total of (a)		-2424.90	94.27
	(b) Increase/(Decrease) in Current liabilities			
	I)Borrowings for working Capital		-113.92	393.72
	ii) Other current liabilities		236.02	226.93
	iii) Others (Increase in Reserve + payment due on cap.liab)		-13.11	-124.19
	Total of (b)		108.99	496.47
	Net Increase/(Decrease) in working Capital (a)- (b)		-2533.89	-402.19
7	Net Funds from operations before subsidies and Grants (5-6)		654.98	675.08
8	Receipts from revenue subsidies and Grants		354.43	46.69
	Total Net Funds from operations including subsidies & Grants (7+8)		1009.42	721.77
II.	Net increase/ decrease in Capital liabilities			
	a). Fresh borrowings			
	I) State Loans			
	ii) Foreign currency Loans / Credits			
	iii) Other borrowings		845.28	496.27
	Total of (a)		845.28	496.27
	b) Repayments :			
	I) State Loans			
	ii) Foreign currency Loans / Credits			

	iii) Other borrowings		618.61	754.19
	Total of (b)		618.61	754.19
	Net Increase/(Decrease) in Capital liabilities (a) - (b)		226.68	-257.93
III.	Increase/(Decrease) in equity Capital		0.00	0.00
IV.	Total Funds available for Capital Expenditure (I+II+III)		1236.09	463.84
V	Funds utilised on Capital Expenditure			
	a)On projects		899.34	560.43
	b)Advance to Suppliers & Contractors			
	c) Intangible Assets		10.37	0.82
	d) Deferred Cost		-0.01	0.00
	e) Long Term Loans and Advances		213.31	85.23
	Total of V (a+b+c+d)		1123.02	646.48
VI	Net Increase/(Decrease) in Government contribution			
VII	Net Increase/(Decrease) in Terminal benefit fund		-127.29	181.85
VIII	Net Increase/(Decrease) in Provident fund		5.54	7.39
IX	Net Increase/(Decrease) in investments		2.18	1.32
X	Net Increase /(Decrease) in cash / bank balance (IV - V- VI-IX)+ (VII+VIII)		-10.85	5.28
XI	Add opening cash & Bank balance		30.87	25.59
XII	Closing Cash & Bank balance (X+XI)		20.02	30.87

Chapter– 4: TRUING UP OF ARR OF SBU – DISTRIBUTION

1 An overlook on Kerala Distribution network:

Kerala State Electricity Board Limited supplies electricity to the entire population across 14 districts in Kerala. There are about 98.81 Lakh domestic consumers, 22.85 Lakh commercial/general consumers, 1.43 Lakh industrial consumers, 4.76 Lakh agricultural consumers. The key statistics of distribution network is given below:

Table-D1 Key Statistics of KSEBL Distribution Network as on 31.03.2020	
Particulars	Statistics
Area Sq.km.	38863 km ²
Districts No's	14
Electrical Circle Offices	25
Population in Cr	3.47
Consumers (Nos)	12826185
Distribution transformers (Nos)	81470
HT lines (Ckt. Kms)	66269.49
LT lines (Kms)	293280
Energy sales including external sales MU	22728.34
Energy consumption (incl open access & captive consumption) in MU	23283.71
Sales per consumer in units	1767
Consumption per consumer in units	1815.32
T&D loss in % (including transmission loss)	12.08%
Distribution loss in %	8.70%
AT&C loss in %	13.10%

2 Availability of Electricity for Supply:

The petitioner has ensured 100% availability of power for supply in the state. There had been no power cut or load shedding enforced in the State even during the extreme summer months of 2019, except for emergency supply interruptions caused by uncontrollable factors. The gross availability of electricity for supply for 2019-20 as per regulations was 102.54 % and the month-wise details of power availability is given as **Appendix D1**.

3 Energy Sales for 2019-20:

- I. Hon'ble Commission, vide order dated 08.07.2019, had approved energy sale of 22969.69 MU for the year 2019-20. Actual energy sale of KSEBL inside the State for FY 2019-20 was 22660.93 MU. Further 11.47 MU was supplied to RGCCPP for meeting auxiliary consumption during non-operative periods making the total energy sales inside the State to 22672.39 MU. 55.95 MU had been sold outside the state. The category wise energy sale to consumers as well as the total energy sales by KSEBL inside the State is given in table below.

Table –D2: -Energy sales by KSEBL 2019-20 (MU)	
Category	Actual
LT Category	
Domestic	11894.15
LT VI & VII Commercial	3424.42
Industrial	1085.16
Agricultural	348.48
Street Lights	365.86
LT II	3.97
Advertisement & Hoardings	1.95
LT Electric vehicle charging stations	0.11
LT Total	17124.11
HT Category	
HT I	2137.59
HT II	835.87
HTIII	10.06
HT IV	737.43
HT V	17.74
HT VI	0.00
HT VII	0.08
HT Total	3738.77
EHT Category	
EHT-I	193.37
EHT-II	496.52
EHT-III	104.51
EHT General	64.97
Railway Traction	305.21
KMRL	17.75
EHT Total	1182.32
Bulk consumers/Licensees	615.73
HT.EHT & Licensees total	5536.82
Energy given to RGCCPP to meet the auxiliary consumption during non-operative periods	11.47
Total energy sales by KSEB Ltd inside the State	22672.39
Energy sales outside the State	55.95
Total energy sales by KSEB Ltd	22728.34

- II. While approving the energy sales for FY 2019-20, Hon'ble Commission considered the energy sales including energy wheeled through open access. The embedded open access consumers availed 386.52 MU through open access at consumer end. A comparison of actual vs approved is given in table below

Table –D3: -Energy sales and energy wheeled through open-access- comparison with approved (MU)					
Category	Approved*	Actual	Energy thru open access	Energy incl OA	% variation against appvl**
LT Category					
Domestic	11439.87	11894.15		11894.15	3.97
VI & VII Commercial	3448.97	3424.42		3424.42	-0.71
Industrial	1134.68	1085.16		1085.16	-4.36
Agricultural	368.65	348.48		348.48	-5.47
Street Lights	404.36	365.86		365.86	-9.52
LT II	5.05	3.97		3.97	-21.35

Advertisement & Hoardings	2.12	1.95		1.95	-8.16
EV charging stations		0.11		0.11	
LT Total	16803.70	17124.11		17124.11	1.91
HT Category					
HT I	2280.91	2137.59	25.71	2163.31	-5.16
HT II	864.87	835.87	14.78	850.65	-1.64
HTIII	10.17	10.06	0.00	10.06	-1.09
HT IV	727.59	737.43	8.50	745.93	2.52
HT V	16.51	17.74	0.00	17.74	7.46
HT VI		0.00		0.00	
HT VII		0.08	0.00	0.08	
HT Total	3900.05	3738.77	48.99	3787.76	-2.88
EHT Category					
EHT-I	369.22	193.37	111.00	304.37	-17.56
EHT-II	778.40	496.52	207.95	704.46	-9.50
EHT-III	101.61	104.51	17.06	121.57	19.65
EHTGeneral	73.75	64.97		64.97	-11.91
Railway Traction	293.05	305.21		305.21	4.15
KMRL	16.92	17.75		17.75	4.91
EHT Total	1632.95	1182.32	336.01	1518.33	-7.02
Bulk consumers/Licensees	632.99	615.73	1.53	617.25	-2.49
HT.EHT & Licensees total	6165.99	5536.82	386.52	5923.34	-3.94
Total	22969.69	22660.93	386.52	23047.45	0.34
Energy given to RGCCPP to meet the auxiliary consumption during non-operative periods		11.47		11.47	
Total	22969.69	22672.39	386.52	23058.91	0.39
* including the consumption of energy wheeled through open access.					
**(+) increase;(-) decrease					

- III. The actual energy sale inside the State by KSEBL was 297.30 MU less than approval. Considering the impact of open access, the actual quantum was 89.22 MU more than the approval quantum (0.39%).
- IV. The energy sale inside the State to its consumers during 2019-20 was 22660.93 MU against 21536.77 MU in 2018-19. The total LT energy sales increased by 7.07 % and HT & EHT energy sales decreased by 2 %. The total energy sales in 2019-20 registered a net increase of 4.97 % over the year 2018-19.
- V. Further 224.80 MU was consumed from captive generation. Thus, the total energy consumption at consumer end was 23283.71 MU against 21902.59 MU during 2018-19. The overall growth in energy consumption at consumer end including open access and captive generation was 5.93%. During the year 2019-20, 55.95 MU had been sold outside the state and 287.88 MU transferred outside the State through banking arrangements.
- VI. Details in respect of consumption of different categories of consumers during the year 2019-20 are given below.

Table-D4: Comparison of Energy consumption inside the State in MU for FY-20					
Category	Tariff code	Energy sales by KSEBL inside the State	Energy wheeled through open access	Energy against captive generation	Total consumption of the State
LT category					
Domestic	LT I	11894.15		39.78	11933.93
Colonies	LT II	3.97		0.00	3.97
Temporary Connections	LT III	1.06		0.00	1.06
Industrial	LT IV	1085.16		0.37	1085.54
Agriculture	LT V	348.48		0.06	348.54
General	LT VI	1628.24		22.86	3446.22
Commercial	LT VII	1795.13		0.00	365.86
Public Lighting	LT VIII	365.86		0.00	1.95
Adv and Hoardings	LT IX	1.95		0.00	0.11
Electrical vehicle	LT X	0.11		0.00	
LT total		17124.11		63.06	17187.17
HT Category					
HT Industrial	HT I	2137.59	25.71	0.92	2164.23
HT General	HT II	835.87	14.78	37.00	887.65
HT Agriculture	HT III	10.06	0.00	0.08	10.14
HT Commercial	HT IV	737.43	8.50	22.40	768.32
HT Domestic	HT V	17.74	0.00	0.23	17.98
HT Temporary	HT VII	0.08	0.00	0.00	0.08
HT Total		3738.77	48.99	60.63	3848.39
EHT category					
EHT 66 KV Industrial	EHT I	193.37	111.00	50.59	354.96
EHT 110 KV Industrial	EHT II	496.52	207.95	2.55	707.01
EHT 220 KV Industrial	EHT III	104.51	17.06	0.00	121.57
EHT General		64.97	0.00	43.09	108.06
Railway Traction		305.21	0.00	0.00	305.21
KMRL		17.75	0.00	4.87	22.62
EHT Total		1182.32	336.01	101.11	1619.44
Bulk Licensees		615.73	1.53	0.00	617.25
HT &EHT & Bulk Supply		5536.82	386.52	161.74	6085.08
Total		22660.93	386.52	224.80	23272.25
RGCCPP		11.47			11.47
Grand Total		22672.39	386.52	224.80	23283.71

- VII. Embedded open access consumers imported about 386.52 MU and energy injected by IPPs into the grid for sale outside the State through open access was 37.50 MU. The details are furnished below.

Table -D5 Energy availed and sold through OA by embedded open access consumers in FY-19 (MU)			
Particulars	Energy at Kerala Periphery	Energy at injection/drawal point	Loss on accounting of wheeled units
Energy (Import)	405.86	386.52	19.34
Energy (Export)	35.96	37.50	1.54
Total loss			20.88

VIII. The energy sales pattern for 2019-20 is given in table below:

Table-D6: Energy Sales pattern for 2019-20			
No	Category	Energy sales	
		MU	%
1	LT Domestic	11898.13	50.45
2	LT Industrial	1085.16	5.16
3	LT Agriculture	348.48	1.57
4	LT Commercial	3426.48	14.96
5	LT Public Lighting	365.86	1.75
6	HT &EHT Total	4598.14	21.86
7	EHT Railway Traction	305.21	1.41
8	KMRL	17.75	0.07
9	Bulk Supply	615.73	2.77
10	Total sales to consumers (within state)	22660.93	100
11	External sale	55.95	
12	Energy given to RGCCPP to meet the auxiliary consumption during non-operative periods	11.47	
12	Total energy sale by KSEBL	22728.34	

4 T & D Loss:

- I. Hon Commission, vide order dated 08.07.2019, had approved the T& D loss target of 2019-20 as 12.42%, over the loss level of 2018-19 (12.82%). Further, the transmission loss and total AT &C loss were approved at 3.95 % and 10.70% respectively with a collection efficiency target of 98 %. The actual T&D loss achieved for the year 2019-20 was 12.08%.
- II. Hon'ble Commission may kindly note that KSEBL was able to reduce loss by 0.34% over and above the target approved (12.42%), as detailed below:

Table D7: T&D loss for the year 2019-20 (MU)		
SI No	Particulars	2019-20
A	Energy generation by KSEBL excl auxiliary consumption	5742.41
B	Power Purchase /energy banked at Kerala periphery	20383.76
C	Sub Total (MU) (A+B)	26126.17
D	Energy injected to the grid by private IPPs for sale outside the State through OA	37.50
E	Energy wheeled by embedded open access consumers from outside the State at KSEB end	405.86
F	Energy sales by KSEBL outside the State	55.95
G	Energy transfer outside the State by KSEBL through banking arrangement	231.93
H	Energy sale by private IPPs for sale outside the State through open access	35.96
I	Energy Input (MU)(C+D+E-F-G-H)	26245.69
J	Substation auxiliary consumption (MU)	19.60

K	Net Energy Input excluding auxiliary consumption (MU) (I-J)	26226.08
L	Energy sales by KSEBL	22660.93
M	Energy consumed by embedded open access consumers at consumer end by wheeling from outside the State	386.52
N	Energy supplied to RGCCPP for auxiliary consumption during non-operative period	11.47
O	Energy supplied at consumer end (MU) (L+M+N)	23058.91
P	T&D loss (MU) (K-O)	3167.17
Q	T& D loss for 2019-20 in % (P*100/K)	12.08
T	T& D loss target approved for 2019-20 in %	12.42
R	Achievement in loss reduction in excess of target approved (%)	0.34

Distribution loss:

- III. The actual transmission and distribution loss during the year 2019-20 was 12.08%. It may please be noted that the total transmission loss up to 66 KV level was 971.24 MU. Based on the above the distribution loss for 2019-20 is assessed as follows:

SI No	Particulars	Quantum	Unit
(i)	Total Generation and Power Purchase at Kerala periphery (item k of table D7)	26,226.08	MU
(ii)	Transmission loss	971.24	MU
(iii)	Total energy input into the distribution system (i)-(ii)	25,254.84	MU
(iv)	Total energy output (item O of Table D7)	23,058.91	MU
(v)	Distribution loss (iii)-(iv)	2,195.93	MU
(vi)	Distribution loss in % (v)*100/(iii)	8.70	%

- IV. As already submitted, Hon'ble Commission approved a collection efficiency target of 98% and target of AT&C loss at distribution level as 10.70%. The AT&C loss achieved during 2019-20 was 13.10% as tabulated below.

	Particulars	Quantum
A	Energy Input (MU)	26,226.08
B	Transmission loss (MU)	971.24
C	Net Energy input (MU) (A-B)	25,254.84
D	Energy Sold (MU)	23,058.91
E	Revenue from sale of power (Rs. Crore)	14273.49
F	Adjusted Revenue based on subsidy received basis (Rs. Cr.)	14273.49
G	Net Opening debtors (Rs. Crore)	2353.20
H	Adjusted closing debtors (Rs. Crore)	3041.61
I	Collection efficiency (F+G-H)/E*100	95.177
J	Units realised (MU) (D*I/100)	21,946.78
K	Units unrealised (MU) (C-J)	3,308.06
L	AT&C Loss (%) (K-C*100)	13.10%

- V. Hon'ble Commission may kindly note that, KSEBL has been continuously reducing the T&D loss since the year 2001-02. KSEBL was able to reduce the total T&D loss in the KSEBL system including transmission system to the level of 12.08% during the year 2019-20. Thus, the losses

in the Distribution system, as a percentage of the total energy input is one of the lowest among the distribution utilities in the country. Consistent T&D loss reduction was one of the major achievements of the Board. It may kindly be noted that, since 2001-02 Board could bring down T&D loss from the level of 30.76% in 2001-02 to 12.08% in 2019-20. This cumulative reduction in T&D loss (18.68%) is equivalent to avoided power purchase of 6981.91 MU during the year 2019-20 alone. At an average purchase rate of Rs 4.26 per unit, this translates to a saving of Rs. 2953 Cr under power purchase cost.

- VI. KSEBL has undertaken a series of measures during 2019-20, as detailed below, in order to achieve the above loss reduction.

Table- D10 Steps taken for T&D loss reduction	
Particulars	Achievement during 2019-20
Substations Commissioned	
400 kV	
220 kV	1
110 kV	9
66 kV	2
33 kV	6
Total	18
Lines Commissioned (Ckt km)	
400kV	92
220kV	55
110 kV	165.17
66 kV	18.7
33 kV	53.05
Total	383.92
Capacity addition/enhancement (MVA)	362
11 KV line constructed(km)	1931
LT line constructed(km)	3689
No. of distribution transformers	2023
HT re conductoring (km)	786.47
LT re conductoring (km)	20141.54
1 phase to 3 phase conversion(km)	2244.51
Meter Replacement (Nos)	1197183

- VII. It is respectfully submitted that, due to loss reduction of 0.34% achieved above the target of 12.42%, KSEBL was able to save an additional quantum of 68.95 MU against power purchase. Considering the average power purchase cost of Rs 4.23 per unit for the year 2019-20; KSEBL was able to save Rs 29.17 Cr under cost of power purchase on account of this achievement.
- VIII. As per Regulation 14 of Tariff Regulations, 2018, the aggregate gain on account of controllable factors shall be dealt with the following manner:
- One-third of the amount of such gain shall be passed on to consumers as a rebate in tariffs.
 - The remaining two third of the amount of such gain may be utilised at the discretion of licensee
- IX. Thus, the gain to be retained by KSEBL amounts to Rs.19.54 Cr and passed on to consumers is Rs 9.72 Cr as detailed below, which may kindly be approved.

Table- D11 Gain attributable to KSEBL on over achievement of T&D loss reduction target.		
Particulars	Quantum	Unit
Energy sales by KSEBL	22660.93	MU
Energy taken by RGCCPP during non-operative periods	11.47	MU
Total energy	22672.39	MU
Energy input needed at 12.42% loss	25887.64	MU
Energy input needed for 2019-20	25818.69	MU
Energy savings	68.95	MU
Power Purchase cost saved due to over achievement of loss	29.17	Cr.
2/3 of savings	19.44	Cr.

X. The comparison of actual energy sales and energy input as against the approval is given in table below

Table- D12 Comparison of energy availability			
Particulars	Approved	Actual	Difference
Energy sales by KSEBL in MU	22969.69	22672.39*	-297.30
Energy input for meeting the energy sales in MU(C-F-G-J) of table D6	26243.43	25818.69	-424.74
Internal Generation in MU (excl aux)			0.00
Hydro	6926.06	5704.67	-1221.39
Thermal	0	10.38	10.38
Solar & wind	44.2	27.36	-16.84
Subtotal generation	6970.26	5742.41	-1227.85
Power Purchase in MU at Kerala periphery			0.00
CGS	11241.96	10082.00	-1159.96
RGCCPP	0	0.00	0.00
IPP-wind & SHPs CPPs & solar prosumers	280.7	308.23	27.53
LTA	8647.06	8137.11	-509.95
RPO-solar	485.51		-485.51
RPO-nonsolar	503.35		-503.35
Short term purchase (MU)	0	1856.42	1856.42
Sub Total generation & Power Purchase by KSEBL (MU)	28128.84	26126.17	-2002.67
Substation auxiliary consumption (MU)		19.60	19.60
Energy availability(MU)	28128.84	26106.57	-2022.27
External sale/swap return(MU)	1885.4	287.88	-1597.52
Energy requirement for sale inside the State	26243.43	25818.69	-424.74

*Energy sales by KSEBL to its consumers (22660.93 MU) along with the supply to RGCCPP (11.47 MU) for meeting the auxiliary consumption during non-operative period (22660.93+11.47=22672.39)

XI. It may be seen from the table that the energy demand has decreased by about 424.74 MU. Hydro generation was less by 1221.39 MU. There was a reduction of 1160 MU from CGS and 510 MU from IPPs outside the State against the approval granted by the Hon Commission. The shortfall of 2022 MU from that of approved was compensated by purchasing power amounting to from exchanges and banking arrangements, which were not originally approved in the order. The sale of power outside the State also came down accordingly.

Analysis of various ARR components

5 Cost of Power Purchase

The Distribution Business Unit of the petitioner had sold 22660.93 MU to its consumers during the year 2019-20 within the State. The total own generation (net of auxiliary consumption) and power purchase was 26106.57 MU at Kerala periphery and the energy requirement for meeting the energy sales is 25762.74 MU. SBU G was able to supply 5742.41 MU (22.28%) only of the total requirement and balance was purchased from CGS and IPPS within and outside the State, power exchanges etc.

- I. **Cost of Generation:** The energy generation from own generating stations was 5742.41 MU as detailed in Table D 11. ARR for SBU G for the year 2019-20 was **Rs. 525.66 Cr** and Non-tariff income earned is **Rs.10.86 Cr**. The net expenses of SBU G transferred to SBU-D are **Rs. 514.80 Cr**. Deviation from approval is explained in chapter dealing with Truing up of SBU G.
- II. **Cost of Purchase of power:** Hon'ble Commission had approved a cost of Rs. 8613.94 Cr for the purchase of 21158.58 MU from various sources. The actual power purchase quantum was 20383.76 MU at Kerala periphery at a cost of Rs 8679.82 Cr as detailed in **Form D3.1**. The power purchase cost as per accounts of 2019-20 was Rs 8680 Cr, which is inclusive of Rs 18 lakhs towards cost of LEDs, revenue from sale of which is booked under non tariff income. The true up requirement is Rs 8616.54 Cr, which is more than the approved by Rs 2.9 Cr. A summary of the approved and actual power purchase and trued up requirement is given in Table below. The source wise procurement of power is detailed in **Appendix-D4**. Hon'ble Commission may please note that the petitioner had taken earnest effort to obtain power at the lowest cost from different sources without imposing any load shedding or power restriction in the state duly observing merit order dispatch.

Table – D13: Power Purchase for the year 2019-20

No	Particulars	Approved		Actual		Truing up		Variation	
		Energy (MU)*	Cost	Energy (MU)*	Cost	Energy (MU)*	Cost	Energy (MU)*	Cost (Rs Cr)
			(Rs Cr)		(Rs Cr)		(Rs Cr)		
1	Central Gen. Stations	11241.96	4135.05	10082.00	3835.91	10082.00	3835.91	-1159.96	-299.14
2	Small IPPs within the State	280.7	103.784	308.23	102.36	308.23	102.36	27.53	-1.43
3	RGCCPP, Kayamkulam (net)				100.22	0.00	100.22	0.00	100.22
4	IPPs / Traders outside state	8647.06	3528.02	8137.11	3606.79	8137.11	3543.50	-509.95	15.48
5	Short term / Exchanges/UI/Swap			1503.75	460.47	1503.75	460.47	1503.75	460.47
6	RPO solar	485.51	145.65			0.00	0.00	-485.51	-145.65
7	RPO non solar	503.35	145.97			0.00	0.00	-503.35	-145.97
8	Transmission charges		555.46		567.34	0.00	567.34	0.00	11.88
9	Charges in connection with banking of power o/s State			352.67	6.00	352.67	6.00	352.67	6.00

10	Other charges in connection with sale				0.74	0.00	0.74	0.00	0.74
11	Total	21158.58	8613.94	20383.76	8679.83	20383.76	8616.54	-774.82	2.60
	Average Power Purchase cost (Rs/unit)	Rs 4.23/unit							
* Energy at KSEB Bus									

- a) **Power Purchase from Central Generating Stations:** A comparison of approved and actual energy purchased from CGS and their costs are given in the Table below.

Table – D14 Power Purchase from Central Generating Stations for the year 2019-20								
Station	Approved		Audited accounts		True up requirement		Variation	
	Energy*(MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)
RSTPS I & II	1808.01	577.40	1791.47	589.07	1791.47	589.07	-16.54	11.67
RSTPS III	453.27	144.50	444.05	147.60	444.05	147.60	-9.22	3.10
Talcher Stage-II	3172.90	770.00	2829.95	786.11	2829.95	786.11	-342.95	16.11
Simhadri TPS Stg II	584.87	256.20	564.87	279.79	564.87	279.79	-20.00	23.59
NLC Stage-I	397.35	134.10	457.87	157.18	457.87	157.18	60.52	23.08
NLC Stage-II	567.42	193.00	620.91	217.37	620.91	217.37	53.49	24.37
NLC 1 Expansion	429.02	147.80	520.95	210.12	520.95	210.12	91.93	62.32
NLC II Expansion	282.78	140.90	242.70	119.19	242.70	119.19	-40.08	-21.71
MAPS	123.59	34.37	75.94	3.68	75.94	3.68	-47.65	-30.69
KAIGA	486.76	180.50	545.38	122.39	545.38	122.39	58.62	-58.11
Kudankulam	1538.37	644.30	1403.35	586.97	1403.35	586.97	-135.02	-57.33
Vallur	347.05	169.00	255.94	161.76	255.94	161.76	-91.11	-7.24
NTPL	501.99	238.80	415.08	198.81	415.08	198.81	-86.91	-39.99
Kudgi	742.20	404.90	284.12	247.61	284.12	247.61	-458.08	-157.29
Bhavini	237.31	99.39			0.00	0.00	-237.31	-99.39
NNTPS			17.71	8.24	17.71	8.24	17.71	8.24
Eastern region				0.01	0.00	0.01	0.00	0.01
Aravally Corporation Ltd						0.00		0.00
Total	11672.89	4135.16	10470.29	3835.91	10470.29	3835.91	-1202.60	-299.25
*Energy at exbus								

- (i) It may please be noted that Unit I of New Neyveli Thermal Power Station (NNTPS) which was not included in the approved quantity by the Hon'ble Commission commenced its commercial operation on 28.12.2019. The same was not proposed in view of uncertainty in its CoD. KSEBL has an allocation of 16.2 MW. Hon'ble CERC vide order dated 29.01.2020 has determined the interim tariff of NNTPS for the period from anticipated COD of units to 31.03.2021. KSEBL scheduled 17.71 MU during 2019-20 for Rs 8.24 Cr.
- (ii) Hon'ble Commission may please be noted that KSEBL entered the PPA with NLC for power allocation from NNTPS on 10.12.2010. Regulation 18 of Tariff Regulation, 2014 (for the control period from 2015-16 to 2017-18) clearly stipulated that in the case of existing generating stations, approval shall not be required in the case of purchase of power based on Central allocation of generation capacity of Central Generating Stations to the State or in the

case of purchase of power from generating stations/units at a tariff approved by Central Electricity Regulatory Commission though not under central allocation of generation capacity to the State or in case of purchase of power from generating stations/units at tariff approved by other State Electricity Regulatory Commissions. The same is reiterated in Tariff regulations 2018 (applicable for the control period from 2018-19 to 2021-22) also. Till the issuance of Tariff Regulations, 2014, KSEBL has been seeking approval for power allocation from Central Generating Stations (allocation of power by Ministry of Power) in the petition for approval for ARR & ERC for the financial year as and when the power started scheduling from Central Generating Stations and Honorable Commission was pleased to approve the same vide ARR & ERC orders. As per the Tariff regulations 2014 also, KSEBL has been continuing the same approach for all the PPAs with Central Generating Stations entered before November 2014.

- (iii) Similar procedure was adopted for all Central Generating Stations whose power is allocated as per Ministry of Power such as NTPC Kudgi, NLC II Expansion, NTPL , NTECL Vallur, NTPC Simhadri, NPCIL Kudamkulam etc whose PPA was entered before FY 2010. But, as per Regulation 76 of Tariff Regulations 2018, KSEBL had sought approval for all power procurements through long term contracts, medium term contracts and short-term contracts entered into with IPPs and private generators, entered after FY2014.
- (iv) As NNTPS did not commence its operation at the time of filing of MYT petition and it was not certain about the date of commencement of scheduled operation, KSEBL did not submit the energy schedule of NNTPS in the MYT petition dated 31.10.2018. The date of commercial operation of unit I of NNTPS was declared on 28.12.2019 and KSEBL considered the energy schedule of the Station in Mid Term review petition filed by KSEBL on 24.03.2020. Considering the fact that KSEBL entered PPA with M/s NNTPP before the issuance of Regulations KSEBL humbly requests before the Hon'ble Commission to kindly consider the power procurement of NNTPS and allow the power purchase cost of M/s NNTPP.
- (v) Table D14 shows that there was an overall reduction in power availability from CGS to the extent of 1202.60 MU from the approved quantum during the year 2019-20 due to reasons mentioned below. The actual power purchase cost from CGS had been less by Rs 299.26 Cr from the amount approved by the Hon Commission as detailed in table above.
- (vi) Hon'ble Commission may please note that KSEBL has been scheduling energy based on merit order despatch basis. As a result, KSEBL surrendered energy from Central Generating Stations having higher energy charges during low demand periods. The reasons for month-wise reduction in availability is enclosed as Annexure
- (vii) The reasons for reduction in energy availability as well as the details of energy surrender are detailed in table below:

Table D15: Reduction in power availability during 2019-20					
CGS	Approved	Actual	Surrender	Total	Remarks for reduction in availability
RSTPS I & II	1808.01	1791.47	61.64	1853.11	
RSTPS III	453.27	444.05	24.33	468.38	
Talcher Stage-II	3172.90	2829.95	13.76	2843.71	Coal shortage during December and March; Forced shut down during May, August, September and October
Simhadri TPS Stg II	584.87	564.87	88.75	653.62	
NLC Stage-I	397.35	457.87	10.96	468.83	
NLC Stage-II	567.42	620.91	21.72	642.64	Forced shut down during May and July
NLC 1 Expansion	429.02	520.95	2.95	523.90	
NLC II Expansion	282.78	242.70	2.07	244.77	Forced shut down
MAPS	123.59	75.94		75.94	
KAIGA	486.76	545.38		545.38	
Kudankulam	1538.37	1403.35		1403.35	
Vallur	347.05	255.94	108.92	364.86	Reserve shut down
NTPL	501.99	415.08	68.26	483.34	Reserve shut down
Kudgi	742.20	284.12	571.65	855.77	Reserve shut down
Bhavini	237.31			0.00	Not yet commissioned
NNTPS	0.00	17.71		17.71	
Eastern region	0.00			0.00	
Total	11672.89	10470.28	975.03	11445.31	

- (viii) KUDGI, NTECL Vallur and NTPL was under reserve shut down for most of the months in 2019-20. Forced outage during the month of May, August, September and October and coal shortage during December and March were the reasons for reduction in availability of Talcher station. The units of NLC II expansion is under forced shutdown occasionally during the period from April to November due to boiler explosion. The month wise reduction in availability and the reasons for reduction in availability was already submitted to Hon'ble Commission as part of fuel surcharge petition.
- (ix) Due to the above-mentioned reasons, there was an overall reduction in CGS to the extent of 1202.60 MU from the approved quantum during the year 2019-20.
- (x) The tariff of Central Generating Stations is determined by Hon'ble Central Electricity Regulatory Commission. Hon'ble Commission vide MYT order dated 08.07.2019 approved fixed charges for the financial year 2019-20 by deducting 2 % on the fixed charges for FY 2018-19. In the MYT order, the variable charges of FY 2019-20 is arrived by applying an escalation of 2 % on the variable charges for first half FY 2018-19.
- (xi) In the case of Central Generating Stations, the power purchase cost includes fixed cost, variable charges RLDC charges, incentive claims and the various supplementary claims approved vide corresponding regulations/CERC orders. The fixed Charges and variable charges payable to a

thermal generating station for a calendar month is calculated in accordance with the formula specified in the CERC tariff regulation for the control period. The fixed charges of each CGS is approved by Hon'ble CERC from time to time. As per the Tariff regulations, the fixed charges payable to the generator is proportional to the availability. ie; the fixed charges paid depends on the actual declared availability of the generating Station. This contributes to variation in charges from that of approved cost.

(xii) The actual per unit variable cost of power purchase, from various sources, over the approved level has varied mainly on account of changes in the variable cost due to the variation in normative SHR and auxiliary consumption, the variation in the price of primary fuel, secondary fuel and changes in calorific value of fuel, cost of transportation of fuel.

(xiii) The energy charge rate calculated as per Tariff regulations is based on the following formula:

$$\text{Energy charge rate} = \{(GHR - SFC * CVSF) * LPPF / CVPF + (SFC * LPSFi) + (LC * LPL) * 100 / (100 - Aux)\}$$

Where,

GHR is Gross station heat rate in Kcal per kWh

AUX = Normative auxiliary energy consumption in percentage.

CVPF = Weighted Average Gross calorific value of coal as received, in kCal per kg for coal-based stations less 85 Kcal/Kg on account of variation during storage at generating station;

(xiv) In case of blending of fuel from different sources, the weighted average Gross calorific value of primary fuel shall be arrived in proportion to blending ratio:

CVSF = Calorific value of secondary fuel, in kCal per ml;

ECR = Energy charge rate, in Rupees per kWh sent out;

SHR = Gross station heat rate, in kCal per kWh;

LPL = Weighted average landed cost of limestone in Rupees per kg;

LPPF = Weighted average landed fuel cost of primary fuel, in Rupees per kg, per

litre or per standard cubic metre, as applicable, during the month.

LPSFi = Weighted Average Landed Fuel Cost of Secondary Fuel in Rs/ml during the month:

(xv) Thus, energy charges depend on gross calorific value of primary and secondary fuel CVSF, and CVPF as well as landed price of primary and secondary fuel (LPPF and LPSFi). The parameters CVPF in the equation of energy charges varies depending upon the grade of fuel which in turn depends on the receipt of coal from different sources and also blending of fuel. Different grades of coal have different prices. Thus, the landed price of fuel again depends on grade of fuel, source of fuel, transportation cost (depends on distance from coal source and mode of transport), price notified for each mine which are different from mine to mine etc.

- (xvi) The variation in energy charge from the approved figures, are attributable to the following.
- i. In the order dated 08.07.2019, the variable charges of various stations for the control period including 2020-21 was calculated by this Honorable Commission by giving an escalation of 2% on annual basis, on the actual variable charges for the first half of the year 2018-19. The CERC notified Tariff Regulations 2019 on 07.03.2019, with effective date as 01.04.2019. As per this there has been revision in normative station heat rate and auxiliary consumption for various stations. Accordingly, energy charges increased considerably compared to the estimation. The impact of CERC Tariff regulations was not captured in the tariff of 2019-20 approved in the MYT order.
 - ii. In addition to the above, as mentioned above the variation of energy charges depends on the price notified for each mine which are different from mine to mine, grade of coal, blending ratio of imported coal and domestic coal, receipt of coal from different sources, distance from source (Coal mines), mode of transport etc. The variable charges depend on the cost of fuel and the transportation cost. The transportation cost by rail depends on the latest freight charges of railways. In the case of coal-based stations the linkage of fuel is mainly from Coal India Ltd (CIL) and Singareni Collieries Ltd (SCCL). Due to shortage from linkage sources, the generating stations has to augment coal from other domestic sources and imported coal as well. Coal from Eastern Coal Fields (ECL) and SECL is expensive as compared to coal from Mahanadi coal fields (MCL) under Coal India Ltd due to the variations in grade of coal and other reasons. Price of coal from Singareni Collieries (SCCL) is based on the price notifications of Singareni Collieries from time to time whereas price of Coal India Ltd (CIL) is based on the notification dated 08.01.2018. There are frequent revisions in SCCL price notification compared to CIL.
 - iii. Following price revisions have been notified by SCCL subsequent to MYT petition which has contributed to increase in energy charges.
 1. SCCL price notification no.107/2018-19 dt 11.10.18 wef 01.10.18
 2. SCCL price notification no.109/2018-19 dt 28.11.18 wef 01.12.18
 3. SCCL price notification no.111/2018-19 dt 31.12.18 wef 01.01.19
 4. SCCL price notification no.113/2018-19 dt 9/3/2019 wef 09.03.19
 5. SCCL price notification no.114/2019-20 dt 04/05/19 wef 04.05.19
 6. SCCL price notification no.117/2019-20 dt 31/08/19 wef 01.09.19
 7. SCCL price notification no.118/2019-20 dt 30/11/19 wef 01.12.19
 8. SCCL price notification no.119/2019-20 dtd 10/2/20 wef 11/2/2020
 9. SCCL price notification no,121/2019-20 dtd 1.03.2020 wef 01/.03.2020
 10. Corrigendum 4 to price notification no,121/2019-20 dtd 30.05.2020 wef 01/6/2020
 11. Corrigendum 5 to price notification no,121/2019-20 dtd 06.06.2020 wef 01/6/2020
 12. SCCL price notification no.125/2020-21 dtd 18/12/20 wef 19/12/2020
 13. Corrigendum 1 to price notification no,125/2020-21 dtd 05.01.2021 wef 06/1/2021
 14. Corrigendum 4 to price notification no,125/2020-21 dtd 27.02.2021 wef 01.03.2021
 - iv. Thus, the actual per unit variable cost of power purchase from various sources will vary from the approved level and this matter is well considered by the KSERC Tariff Regulations, by

approving fuel surcharge. Considering this Hon'ble Commission vide order dated 14.02.2020 approved an amount of Rs 62.26 Cr on account of fuel surcharge for first quarter of FY-2019-20 and allowed recovery of the same for the period from 15th February 2020 to 31st May 2020. The recovered fuel surcharge during FY 2020 is accounted in the revenue of FY 2019-20.

- v. Further, in the case of lignite-based stations, NLC has issued the Lignite transfer price guidelines 2019-24 on 17.09.2019 having effect from October 2019. As per the revised guidelines, the basic price of pooled lignite is revised from Rs. 1950/ton to Rs. 2050/ton with effect from 01.10.2019. Further, security charges, ground water charges and recovery of lignite price due to surrender of power of the linked power plants etc are billed in addition to basic price from 01.10.2019 onwards. Hence energy charges of NLC stations has increased from the third quarter of FY-2019-20 onwards. As the lignite transfer price for 2019-24 was finalised by NLCIL without due consultation with KSEBL, payment of monthly bills from Oct.2019 to July 2020 were released under protest. As NLC did not have the jurisdiction to issue guidelines, KSEBL raised dispute against the same before Hon'ble CERC. Hon'ble CERC was pleased to issue stay on the guidelines issued by NLC at the time of hearing and directed NLC to continue the billing at the rates prevailing corresponding to the tariff period 2009-2014. KSEBL has been admitting bills at the lignite transfer price of Rs 2132.239 per MT based on the MoC guidelines issued vide order No 28012/1/2014-CA-II dated 2.1.2015 from the month of August 2020 onwards.
 - vi. Further the actual power purchase cost includes RLDC charges, incentive claims and various supplementary claims approved vide corresponding regulations/CERC orders which is not considered while approving the ARR of FY 2019-20 vide order dated 08.07.2019.
 - vii. All the above factors contribute to variation in the per unit power purchase cost of FY 2019-20 and these are beyond the control of utility. Thus, the power purchase cost is dependent on Tariff Regulations and variations in coal price from time to time and is an uncontrollable factor. Therefore, Hon'ble Commission may kindly approve the power purchase cost as submitted in the true up petition.
 - viii. The refund on account of revision of RLDC charges (Farakka and Kahalgon stations under Eastern Region) for the period 01.03.2010 to 30.04.2013 amounting to Rs 83057 and Rs 21,957 was made during the year on account of the revision of ULDC Fees and Charges of ER stations - Farakka I, Kahalgaon I and Talcher I for the control period 2009-14 based on CERC order dt 20/9/2018 on Petition no. 213/TT/2017 for truing up of Fees and charges for 2009-14 period. PGCIL had filed the petition for truing up of fees and charges for Fibre Optic Communication System under expansion of Wideband communication Network in eastern region for the 2009-14 period.
 - ix. In the case of KAIGA and MAPs, the reduction in charges is due to the revised fuel price as per DAE notification dated 18.02.2020. Rs(-16.07)Cr credited for the period from 2009-10 to 2018-19 as tariff adjustment due to DAE notification dtd 18-02-2020 in the accounts of FY 2020 for MAPS and Rs (-68.66) Cr for KAIGA station.
- b) **Power Purchase from wind and small IPPs within the State:** KSEBL had purchased 295.09 MU for Rs.108.97 Cr against the approved quantum of 280.7 MU for Rs 103.78 Cr.

- i. The purchase of power from Independent Power Producers *as well as the net injection to the grid during FY 2019-20 by captive SHP/solar/co-generation power producers* such as Maniyar, Kuthungal, PCBL and solar prosumers is given in table below.

Table-D16: Power Purchase from Wind and other small IPPs								
Station	KSERC approval		Audited Accounts		TU requirement		Difference	
	(MU)	(Rs Cr)	(MU)	(Rs Cr)	(MU)*	(Rs Cr)	(MU)	(Rs Cr)
Wind- Ramakkalmedu	27.87	8.75	23.10		23.10			
Wind-Koundikkal	12.56	3.94	26.70	19.003	26.70	19.003	-9.60	-3.017
Wind- Agali	29.72	9.33	10.75		10.75			
Wind Ahalya	20.98	10.97	19.23	10.055	19.23	10.05	-1.75	-0.92
INOX	30.84	12.61	37.21	15.219	37.21	15.22	6.37	2.61
Kosamattom	0	0	1.61	0.495	1.61	0.50	1.61	0.50
Wind Sub total	121.97	45.61	118.60	44.771	118.60	44.77	-3.37	-0.84
Ullunkal(EDCL)	17.79	4.34	18.10	4.416	18.10	4.42	0.31	0.08
Iruttukanam Stage-I & II(Viyyat)	24.69	6.673	18.25	5.034	18.25	5.03	-6.44	-1.64
Karikkayam HEP(AHPL)	37.56	15.624	36.37	15.128	36.37	15.13	-1.20	-0.50
Meenvallom(PSHCL)	8.44	4.12	6.80	3.290	6.80	3.29	-1.64	-0.83
Kallar of Idukki District Panchayat	0.08	0.04	0.00	0.027	0.00	0.03	-0.08	-0.01
Mankulam of Grama Panchayat	0	0	0.00	0.000	0.00	0.00	0.00	0.00
Minar Renewable energy project Ltd *	0	0	0.00	0.179	0.00	0.18	0.00	0.18
SHEP subtotal	88.65	30.84	79.51	28.074	79.51	28.07	-9.14	-2.77
Solar					0.00	0.00	0.00	0.00
Solar IREDA	70.08	27.33	73.16	28.038	73.16	28.04	3.08	0.71
Solar IPP ANERT			2.59		2.59	0.00	2.59	0.00
Grid connected average pooled power purchase cost-solar			8.74	1.472	8.74	1.47	8.74	1.47
Solar subtotal	70.08	27.33	84.49	29.51	84.49	29.51	14.41	2.18
Captive consumers net injection to grid			22.46		22.46	0.00	22.46	0.00
PCBL(Deviation adjustment)			3.18	0.00	3.18	0.00	3.18	0.00
Total	280.70	103.78	308.23	102.36	308.23	102.36	27.53	-1.42

- Hon'ble Commission, as per order dated 06.09.2019 approved levelized tariff for (8 MW SHEP) Minar Renewable energy project Ltd at Rs. 4.08 per unit from the date of synchronization. Amount represent previous years energy from January 2017.
- ii. **Wind IPPs:** Hon'ble Commission approved 121.97 MU from various wind IPPs for a total cost of 45.61 Cr against which, KSEBL purchased 118.60 MU for a total cost of Rs 44.77 Cr as shown in table above.
- iii. Hon'ble Commission has not included power schedule from M/s Kosamattom Finance Ltd, which was connected to grid on 20.03.2018 and injected 1.61 MU during FY 2019-20 at a total cost of Rs 0.495 Cr. It may please be noted that KSEBL initialled draft PPA with M/s Kosamattom Pvt Ltd on 27.10.2018 @ interim tariff of Rs 3.07 per unit and submitted the same before Hon'ble Commission for approval. Subsequently Hon'ble Commission, vide the Order dated 04/12/2019, approved the levelized tariff for the electricity generated from the 1 MW WEG installed by M/s KFL at Ramakkalmedu at

Rs 4.23 per unit without the benefit of accelerated depreciation and Rs 3.93 per unit, if the benefit of accelerated depreciation is to be availed of. Hon'ble Commission vide order dated 27.10.2020 approved the draft PPA of the generator with certain modifications @ Rs 3.93 per unit and KSEBL entered PPA with M/s Kosamattom Finance limited on for purchasing power from the 1MW Wind Mill at Ramakkalmedu at a tariff of Rs,3.93/unit availing the benefit of accelerated depreciation.

- iv. **Small Hydro IPPs:** Hon'ble Commission vide order dated 08.07.2019 approved 88.65 MU from various small hydel IPPs @ of Rs 30.84 Cr. KSEBL has procured 74.51 MU at a cost of Rs 27.98 Cr.
- v. **Solar IPPs:** Hon'ble Commission approved 70.08 MU from Kasargod solar park (IREDA) for a total power purchase cost of Rs 27.33 Cr. KSEBL has purchased 73.16 MU from IREDA at a cost of Rs 28.038 Cr. In addition, 2.59 MU was procured from solar Project Kuzhalmannam of Anert. The PPA with M/s Anert is under process and hence the cost of the same is not accounted in Accounts of 2019-20.
- vi. **CPPs:** There was a net injection of 22.46 MU by CPPs such as Maniyar, Kuthungal, major solar prosumer CIAL etc during the financial year 2019-20. However, this is considered only for loss calculation purpose. Further there is a net injection of 3.18 MU to grid during 2019-20 in connection with the sale of power through open access by Philips Carbon Black Ltd.
- vii. **Solar prosumers:** A net injection of about 8.74 MU has been made by various solar prosumers and the power purchase cost accounted during 2019-20 is Rs 1.47 Cr. at APPC rate.
- viii. **Thermal IPPs**

Power purchase from RGCCPP, Kayamkulam: Hon'ble Commission, vide order dated 08.07.2019, did not approve any schedule from RGCCPP for the year 2019-20 and did not approve the AFC of RGCCPP in the ARR of KSEBL from 2019-20 onwards and had directed KSEBL to negotiate for bringing down the AFC. As per the direction of Hon'ble Commission, KSEBL and NTPC Ltd. held several rounds of discussions and in the meeting held between NTPC and KSEBL on 12-11-2020, wherein both NTPC and KSEBL agreed on **Rs. 100.22 crores** per annum as annual fixed charges of RGCCPP, Kayamkulam for the period starting from 01.04.2019 to the end of station life as per PPA i.e up to 28.02.2025. The matter was brought to the kind attention of Hon'ble Commission vide petition dated 11.01.2021 and Hon'ble Commission vide order dated 17.03.2021 was pleased to approve the fixed charges for the PPA period. Considering the above Hon'ble Commission kindly **approve Rs 100.22 Cr** as per the accounts of KSEBL for the year 2019-20.

ix. Total power purchase from IPPs inside the State is summarized as below:

Table-D17: Power Purchase from IPPs								
Station	KSERC approval		Audited Accounts		Truing up requirement		Difference	
	Energy (MU)	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)
RGCCPP	0.00	0.00	0.00	100.22	0.00	100.22	0.00	100.22
Wind & SHEP	210.62	76.45	198.11	72.85	198.11	72.85	-12.51	-3.60
Solar-IREDA and Anert	70.08	27.33	75.75	28.04	75.75	28.04	5.67	0.71
Grid connected solar prosumers	0.00	0.00	8.74	1.47	8.74	1.47	8.74	1.47
CPPs/PCBL	0.00	0.00	25.64	0.00	25.64	0.00	0.00	0.00
Subtotal	280.70	103.78	308.23	202.57	308.23	202.57	1.90	98.79

- c) **Power Purchase from IPPs outside state through approved firm contracts:** Since the power demand of the State cannot be met fully from resources within the state, KSEBL had, with the approval of Hon'ble Commission, entered into agreements with various generators outside the State. Hon'ble Commission had approved 8994.76 MU for a total amount of 3528.03 Cr from various generators inclusive of power contracted through DBFOO basis against which KSEBL had purchased 8454.81 MU for a total cost of 3606.79 Cr from various contracts. The details of cost of power purchase through long term contracts as per audited accounts are given in table below.

Table-D18: Power Purchase thru various LTA as per audited accounts approved for FY -20				
Source	KSERC approval		Actual	
	Energy* (MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)
Maithon Power Ltd-I	1105.73	415.79	1047.56	436.66
Maithon Power Ltd-II	1105.73	415.79	1047.54	436.81
DVC Mejia	705.5	273.27	593.58	261.62
DVC RTPS	348.1	136.92	266.41	127.84
Jindal Power Ltd-Bid I	1,497.96	555.28	1428.54	537.31
Jhabua Power Ltd-PSA I	861.33	332.47	793.97	349.11
Jindal Power Ltd-Bid II	1,123.47	466.17	1071.64	470.71
Jhabua Power Ltd-Bid II	748.98	310.78	690.43	348.99
JITPL	748.98	310.78	751.11	327.18
BALCO	748.98	310.78	764.03	310.54
Subtotal	8994.76	3528.03	8454.807	3606.79
* Energy at ex bus				

i. **Power purchase from IPPs through long term contracts for which tariff is determined by CERC**

Honorable Commission approved 3265.06 MU for a total cost of Rs 1241.77 Cr for the year 2019-20 from the projects through long term contracts whose tariff is determined by CERC. KSEBL purchased 2955.09 MU for a total amount of Rs 1262.93 Cr against this. The details are given below.

Table-D19: Power Purchase thru various LTA as per audited accounts approved for FY -20				
Source	KSERC approval		Actual	
	Energy* (MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)
Maithon Power Ltd-I	1105.73	415.79	1047.56	436.66
Maithon Power Ltd-II	1105.73	415.79	1047.54	436.81
DVC Mejia	705.5	273.27	593.58	261.62
DVC RTPS	348.1	136.92	266.41	127.84

The reasons for variation for power purchase cost in the case of power contracted through long Term contracts is given below.

Maithon Power Ltd: -

The actual power purchase cost of Maithon Power Ltd is more than the approved cost. The variation in fixed cost was due to the revision of AFC as per CERC order dated 01.10.2019. The revised fixed charges for the Tariff period 2014-19 are given in table below.

Table-D20 Revised Annual Fixed Charges (Rs Cr)	
Financial Year	Revised AFC vide order dated 01.10.2019
2014-15	Rs 991.545
2015-16	Rs 1063.1426
2016-17	Rs 1078.6834
2017-18	Rs 1065.5283
2018-19	Rs 1112.8793

Thus, the annual fixed charges increased to Rs 1112.88 Cr. from that considered while approving the fixed charges in MYT petition amounting to Rs 1085.68 Cr. for the year 2018-19. The actual fixed charges for the year 2019-20 have increased to Rs 169.57 Cr and Rs 167.99 Cr. for Maithon Power Ltd - I & Maithon Power Ltd - II respectively from the approved cost of Rs 152Cr.

The variation in energy charges was due to the reasons mentioned in paragraph 4.6. Vide CERC Tariff regulations 2019, the auxiliary consumption increased from 5.75% to 6.25 %. Coupled with the variations in fuel prices, the variable charges increase to Rs 280.57 Cr. for Maithon Power Ltd - I & Maithon Power Ltd - II from the approved cost of Rs 263.7 Cr. The reasons for month wise reduction in availability and variation in fuel cost was already submitted before the Hon'ble Commission along with fuel surcharge petitions and its additional submission.

DVC Mejia and DVC RTPS

Revised gross station heat rate due to revised Tariff guidelines and usage of high cost coke grade coal resulted in increase in cost in these stations. The gross station heat rate increases from 2371.61 to 2374.1 and auxiliary consumption increases from 5.25% to 5.75% for DVC Mejia and gross station heat rate increases from 2339.78 to 23352.87 and auxiliary consumption increases from 5.25% to 5.75% for DVC RTPS which contributes to increase in

energy charges. Further the variation in coal prices and transportation charges also contributes to variation in energy charges.

ii Power contracted through DBFOO

Hon'ble Commission approved power procurement of 5729.7 MU for a total cost of Rs 2286.26 Cr from projects under DBFOO basis for the financial year 2019-20. KSEBL procured 5499.72 MU for a total power purchase cost of Rs 2343.85 Cr.

In the case of approved contracts, Hon'ble Commission vide MYT order dated 08.07.2019 approved fixed charges for the Financial year 2019-20 by deducting 2 % on the fixed charges for FY 2018-19. But as per PSA the base fixed charges for a particular year is obtained by applying a depreciation of 2 % on the base fixed charges of previous year. The base fixed charges so arrived is escalated with 30% of variation in whole price index of January of corresponding year from that of January 2014.

In the MYT order , the variable charges of FY 2019-20 is arrived by applying an escalation of 2 % on the variable charges for first half FY 2018-19. As per PSA, the variable charges is dependent on the landed cost of fuel, station heat rate, and gross calorific value of fuel. The variation in variable charges is due to the variation in landed cost of fuel and variations in calorific value of fuel. The details of purchase from projects under DBFOO basis and the corresponding cost of purchase is given in table below

Table-D21: Power Purchase thru various LTA as per audited accounts approved for FY -20				
Source	KSERC approval		Actual	
	Energy* (MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)
Jindal Power Ltd-Bid I	1,497.96	555.28	1428.54	537.31
Jhabua Power Ltd-PSA I	861.33	332.47	793.97	349.11
Jindal Power Ltd-Bid II	1,123.47	466.17	1071.64	470.71
Jhabua Power Ltd-Bid II	748.98	310.78	690.43	348.99
JITPL	748.98	310.78	751.11	327.18
BALCO	748.98	310.78	764.03	310.54
Subtotal	8994.76	3528.03	8454.807	3606.79
* Energy at ex bus				

In the case of M/s Jhabua Power Ltd, Honorable Commission may kindly note the following points.

The actual power purchase cost for Jhabua Power Ltd (115 MW under Bid I) amounts to Rs 349.11 Cr against the approved cost of Rs 332.47Cr and Rs 348.98 Cr against 310.78 Cr for Jhabua Power Ltd II under PSA II.

It may kindly be noted that Rs 41.82 Cr claimed by Jhabua power Ltd (115 MW) under PSA-I, and Rs 35.51 Cr claimed by Jhabua Power Ltd (100 MW) under PSA II towards claims on fixed charges and variable charges was not admitted by KSEBL during FY-2019-20. This is mainly due to difference in value of station heat rate taken by the utility and generator for the computation of fixed charges and fuel charges and due to the difference in methodology taken by KSEBL and generator for the calculation of fuel charges. M/s Jhabua Power Ltd has filed a petition before Hon'ble CERC on the matter since this Hon'ble Commission decided that it does not have jurisdiction in the matter. Further KSEBL is deducting the SRLDC fees and charges from the monthly bill of M/s Jhabua power Ltd as per clause 5.7 of PSA which was not agreeable to M/s Jhabua Power Ltd. Also, M/s Jhabua Power Ltd does not account the STOA, MTOA credits passed on by M/s PGCIL in their monthly bills, but has not disputed the PoC bill claim. As a result, Rs 77.33 Cr towards fixed and variable charges for 2019-20 had not been admitted for the variation of fixed charges and variable charges due to this difference in methodology of computation but was provided in accounts.

KSEBL has not paid these charges during 2019-20 and therefore not claiming Rs 77.33 Cr (Rs 41.82 Cr.+ Rs 35.51 Cr.) in the truing up petition for FY-20. It is requested that Hon'ble Commission may kindly consider truing up of these claims, if any portion legally materialise on a later date.

In addition to the above it may please be noted that KSEBL claimed only paid amount for FY 2017-18 and 2018-19 at the time of truing up petition. During the year 2017-18 and 2018-19 KSEBL has not allowed Rs 5.93 Cr for the period from October 2017 to April 2019 towards fixed charge on account of **non-availability of concessional fuel** owing to the following reasons

KSEBL had executed Power Supply Agreement with M/s. Jhabua Power Ltd for the supply of 115 MW and 100 MW RTC power from Jhabua Power Plant for a period of 25 years on DBFOO basis with start date of power supply as December 2016 and October 2017 respectively. As per Clause 21.4.2 of the PSA, the Utility is liable to pay Fixed Charges for Availability corresponding to 70% of the non-availability due to fuel shortage and the firm is not liable to pay Damages for this non availability. Accordingly, KSEBL had admitted Deemed availability claim of M/s Jhabua on account of shortage in fuel supplied by the fuel suppliers, Mahanadi Coalfields Ltd and South Eastern Coalfields Ltd in November and December 2017 and from February to April 2018 along with the monthly bill raised by the firm. The firm had claimed Deemed Availability for the month of October 2017 vide supplementary invoice dated 8th May 2018. But KSEBL had not admitted the same in view of non-submission of details in time. KSEBL had obtained the details of concessional coal supplied to Jhabua from the fuel suppliers and KSEBL requested the firm to certify that the concessional coal as per the FSA against the PSA executed with KSEBL is being fully utilized for supplying power to KSEBL. The firm was also requested to provide the details of concessional coal received during April and May 2018. Since the above details were not provided by the firm KSEBL has not been admitting the Deemed Availability claims since May 2018. Subsequently, based on the meeting with KSEBL on 7th and 8th March 2019, M/s. Jhabua Power furnished supporting documents in the form of periodic reconciliation sheets signed with MCL from Dec 2016 to March 2018 and from December 2016 to December 2018 with SECL. Subsequently, vide letter dated 17th July 2019, the firm has

submitted reconciled sheets from SECL and MCL for the period upto March 2019 and has requested KSEBL to process the deemed availability claims for the financial year 2017-18 and 2018-19. The coal details as furnished by M/s Jhabua Power Ltd have been analysed in detail. It is observed that about 794.026 MU and 1099.43 MU can be supplied from the power plant to KSEBL with the quantum of coal received from SECL and MCL for the financial years 2017-18 and 2018-19. Against this the firm has supplied 814.79 MU and 1275.84 MU from the Jhabua Power plant against PSA 1 and 2 during the financial years 2017-18 and 2018-19, which was reportedly made possible by procuring coal from market and through e auction. It may be noted that the energy to be supplied to KSEBL for the two financial years against the two PSAs at Normative Availability of 90% are 1234.79 MU and 1610.30 MU respectively. The calculations are summarized as follows:

Table-D22 Details of concessional coal and energy generation				
PSA 1 and PSA 2	2017-18		2018-19	
	SECL	MCL	SECL	MCL
Quantity of coal supplied, MT	7,00,913.89	2,10,774.30	9,31,512.21	3,80,843.30
KSEBL share, 50.58%	3,54,522.25	1,06,609.64	4,71,158.88	1,92,630.54
Total MU that can be generated with the received coal, MU	794.0259278		1099.432937	
MU supplied by Jhabua from PSA 1 and 2, other than from alternate source, MU	814.7900000		1275.8374475	
Total No. of Units at 90% Normative Availability, MU	1234.791		1610.307	

Thus, it is evident from the above that there has been deficiency in supply of coal to Jhabua Power Plant during the financial years 2017-18 and 2018-19. Hence KSEBL allowed Deemed Availability on account of shortage of fuel to Jhabua Power for these financial years to be computed as per the following clauses of the PSA.

As per clause 22.7 of PSA 'The Supplier shall at all times maintain a minimum stock of Concessional Fuel and Fuel from AFSA, if any, which is sufficient for full production of electricity from Contracted Capacity for supply thereof to the Utility for a continuous period of 7 (seven) days (the "Minimum Fuel Stock").

As per 22.8.2 'In the event of any Fuel Shortage hereunder, the Fixed Charge payable for and in respect of any Non-Availability arising as a result thereof shall be equal to 70% (seventy per cent) of the Fixed Charge computed in accordance with the provisions of Clause 21.4.2'

As per 21.4.2 'Upon occurrence of a shortfall in the Minimum Fuel Stock, Availability shall be deemed to be reduced in accordance with the provisions of Clause 21.5.2 and the Non-Availability arising as a consequence thereof shall, for the purposes of payment of Fixed Charge, be deemed to be Availability to the extent of 70% (seventy per cent) of the Non-Availability hereunder. For the avoidance of doubt, the Parties expressly agree that if Fuel Shortage is caused by an action or omission attributable to the

Supplier, it shall not be reckoned for the purposes of computing Availability hereunder. By way of illustration, the Parties agree that in the event the Non-Availability arising on account of shortfall in supply of Fuel is determined to be 50% (fifty per cent), the Supplier shall, with respect to the Non-Availability arising on account thereof in accordance with the provisions of Clause 21.5.2, be entitled to a Fixed Charge as if the Availability is equivalent to 70% (seventy per cent) of such Non-Availability. For the avoidance of doubt, the Parties agree that the Supplier shall not be liable to pay the Damages specified in Clause 21.6.2 if Non-Availability shall arise as referred to in this Clause 21.4.2’.

As per clause 21.5.2 ‘In the event Fuel stocks decline below the Minimum Fuel Stock, Availability shall be deemed to be reduced proportionate to the reduction in Minimum Fuel Stock, and shall be deemed as Non-Availability on account of Fuel Shortage. Provided that the Utility may, in its sole discretion, Despatch the Power Station for the full or part Non-Availability hereunder and to the extent of such Despatch, the Utility shall pay the full Fixed Charge due and payable in accordance with this Agreement. For the avoidance of doubt and by way of illustration, if the actual stock of Fuel is 80% (eighty per cent) of the Minimum Fuel Stock at the commencement of any day, the Availability for that day shall be deemed to be 80% (eighty per cent) and the Non-Availability on account of Fuel Shortage shall be notified by the Supplier to the Utility accordingly’.

Based on the above KSEBL admitted Rs 5.93 Cr for the year 2017-18 and 2018-19 during November 2019 towards M/s Jhabua Power Ltd (115 MW under Bid I) as per the provisions in PSA. Month-wise details admitted is given in table below.

Table D23 Admitted claims on account of Deemed availability for Jhabua power Ltd-PSA I						
Sl no	Month	Admissibility given on	Amount claimed by M/s Jhabua Rs	Amount already admitted Rs	Revised Amount Admissible on Nov 2019 Rs	Balance released during November 2019 Rs
				-1	-2	(2)-(1)
1	Oct-17	13.11.2017	23,55,02,731	12,08,76,194	15,16,48,289	3,07,72,095.00
2	Nov-17	13.12.2017 & 10.01.2018	27,63,30,050	24,61,58,977	24,01,97,725	-59,61,252.00
3	Feb-18	06.03.2018	26,72,23,847	22,72,03,232	22,15,41,895	-56,61,337.00
4	Mar-18	09.04.2018	29,55,23,565	25,30,41,863	25,25,53,742	-4,88,121.00
5	Apr-18	Annual reconciliation for 2017-18 admitted on 14.05.2018	8,51,46,908	37,77,970	-22,95,645	-60,73,615.00
6	Apr-18	14.05.2018	21,55,13,077	16,65,31,702	15,59,44,268	-1,05,87,434.00
7	May-18	12.06.2018	23,38,83,994	19,80,43,478	20,37,84,766	57,41,288.00
8	Oct-18	15.11.2018	28,92,64,726	23,09,50,916	24,39,33,793	1,29,82,877.00
9	Nov-18	13.12.2018	26,35,93,167	22,19,44,390	23,11,69,036	92,24,646.00
10	Dec-18	14.01.2019	29,80,55,521.50	26,67,89,486.00	27,98,07,855	1,30,18,369.00
11	Feb-19	13.03.2019	26,03,74,733.32	20,56,66,858	22,57,80,586	2,01,13,728.00
12	Apr-19	Annual reconciliation for 2018-19 admitted on 15.05.2019	5,89,64,058	89,55,157	51,68,338	-37,86,819.00
		Total Rs	2,77,93,76,378	2,14,99,40,223	2,20,92,34,648	5,92,94,425
			Balance to be released, GRAND TOTAL Rs			5,92,94,425 /-

Further KSEBL admitted Rs Rs 8.12 Cr for the year 2017-18 during November 2019 towards M/s Jhabua Power Ltd (100 MW under Bid II) as per the provisions in PSA. The month wise details admitted is given in table below.

Table D24 Admitted claims on account of Deemed availability for Jhabua power Ltd-PSA II						
Sl no	Month	Admissibility to FA given on	Amount claimed by M/s Jhabua Rs	Amount already admitted Rs (1)	Revised Amount Admissible on November 2019 Rs (2)	Balance released during November 2019 Rs (2)-(1)
1	Oct 2017	13.11.2017	21,68,47,555	8,11,18,190	11,87,90,569	3,76,72,379.00
2	Nov 2017	12.12.2017 & 10.01.2018	27,48,94,373	25,89,64,798.49	25,06,63,603.49	-83,01,195.00
3	Dec 2017	10.01.2018	26,83,67,926	19,96,93,542	20,05,83,090	8,89,548.00
4	Feb 2018	08.03.2018 & 15.03.2018	25,25,03,211	24,06,54,484	23,33,03,272	-73,51,212.00
5	Mar 2018	09.04.2018	29,34,64,637	26,57,79,580	26,45,69,382.54	-12,10,197.46
6	Apr 2018	Annual reconciliation for 2017-18 admitted on 14.05.2018	1,69,28,449	82,08,411	87,01,898	4,93,487.00
7	Apr 2018	14.05.2018	22,08,34,916.03	17,93,34,560.43	16,62,93,052	-1,30,41,508.43
8	May 2018	12.06.2018	23,25,86,771	20,37,33,452	21,07,51,675	70,18,223.00
9	Oct 2018	15.11.2018	28,63,83,431	23,41,01,242	25,23,79,630	1,82,78,388.00
10	Nov 2018	13.12.2018	26,29,47,391	22,78,80,589	23,91,41,443.37	1,12,60,854.37
11	Dec 2018	14.01.2019	29,52,56,341	25,40,58,599	26,99,41,605	1,58,83,006.00
12	Feb 2019	13.03.2019	25,91,92,758	21,10,44,548	23,55,71,471.51	2,45,26,923.51
	Apr 2019	Annual reconciliation for 2018-19 admitted on 15.05.2019	6,44,26,047	1,07,39,235	58,35,505	-49,03,730.00
Total Rs			2,94,46,33,806	2,37,53,11,230.92	2,45,65,26,196.91	8,12,14,965.99
GRAND TOTAL Rs						81214966 /-
Rupees Eight Crore twelve lakh fourteen thousand nine hundred and sixty six only						

As the provisions of the same were already provided in the audited accounts of FY 2017-18 and 2018-19, the same is not reflected in the annual accounts of FY 2019-20. But as KSEBL has claimed only paid amount for FY 2017-18 and 2018-19 at the time of truing up of FY 2017-18 and 2018-19, KSEBL humbly requests Hon'ble Commission to approve the above amount over and above in audited accounts for FY 2019-20.

(i) Thus, the actual cost claimed by KSEBL for these stations are given below

Table D25 Power purchase Cost of Jindal and Jhabua Power Ltd (Rs Cr)				
Source	Power purchase cost for FY-20 as per accounts	Unadmitted charges accounted in FY-20 but not claimed in TU-20	Amount claimed under deemed availability provisions as per PSA pertaining to FY 2017-18 and 2018-19	Power purchase cost claimed for FY-19
	A	B	C	D=A-B+C
	Rs Cr.	Rs Cr.	Rs Cr	Rs Cr.
Jhabua Power Ltd-Bid I	349.11	41.82	5.93	313.22
Jhabua Power Ltd-Bid II	348.99	35.51	8.12	321.60
Total	698.10	77.33	14.05	634.82

In the case of power contracted from generators under DBFOO for which rate is not approved by Hon'ble Commission, the following points may kindly be noted.

Hon'ble Commission approved scheduling of power from M/s Jindal Power Limited (150 MW), M/s Jhabua Power Limited (100 MW) and M/s Jindal India Thermal Power Ltd (100 MW), under bid II, for the limited purpose of estimating the ARR&ERC for the control period at rate equivalent to that of power from Balco, as the final approvals from GoI and State Government was still awaited.

While approving the fuel surcharge petition for the year 2019-20, Hon'ble Commission has not admitted the fuel price variation in respect of three IPP stations viz Jindal India Thermal Power Ltd (100 MW), Jhabua Power Ltd (100 MW) and Jindal Power Ltd (150 MW), which were contracted by KSEBL based on tenders invited under DBFOO basis in 2014. Hon'ble Commission has considered drawal of power from these stations at a cost equivalent to that being paid to M/s. BALCO, for the provisional estimation of cost of power while approving the ARR & ERC for the control period, 2018-2022.

This Hon'ble Commission has further ordered that approval of power purchase from the stations mentioned above shall be given only after getting approval from Government of India as well as from Government of Kerala on the entire power purchase under DBFOO. It was also mentioned in the order that actual tariff paid by KSEBL for procuring power from these three stations were much higher and reiterated that, during truing up of accounts for the respective financial years, the excess amount incurred for procuring power from these three generators shall not be considered, unless KSEBL gets the approval for power purchase from Government of India for deviations from the guidelines and on getting the approval of Government of Kerala on the entire power purchase under DBFOO.

It is submitted that aggrieved by the above orders, KSEBL filed separate review petitions against two fuel surcharge orders dated 14.02.2020 and 27.04.2020 before this Hon'ble Commission on 30.03.2020 and 04.06.2020 respectively for allowing pass through of the additional fuel cost incurred thereunder. But Hon'ble Commission rejected the prayers of KSEBL on both the petitions as per order dated 14.08.2020 and directed KSEBL to file separate petition.

With due respect to the orders of this Hon'ble Commission, from August 2020 onwards, KSEBL has limited payment towards power purchase from the above mentioned three stations limiting to the rate of M/s BALCO at Kerala periphery. It is further submitted that KSEBL has filed separate petition before this Hon'ble Commission seeking final and conclusive order in the matter of the drawal of power contracted against the PSAs of the three generating stations on 09.11.2020. Public hearing on the same was scheduled on 09.02.2021 but was adjourned by Hon'ble Commission.

It may please be noted that Hon'ble Commission has directed to limit the payment towards power purchase from the above mentioned three stations to the rate of M/s BALCO at Kerala periphery during 2020-21 only. As KSEBL had already remitted the power purchase cost of these stations by that time, KSEBL humbly requests before the Honorable Commission to approve the actual expenses claimed in this petition given in table below. Further KSEBL humbly requests before the Hon'ble Commission to pass on the amount payable as per final orders in this matter, as and when the same materializes.

The claim of KSEBL for truing up is furnished in table below, which may kindly be approved.

Table-D26 : Power Purchase thru various LTA as per audited accounts approved for FY -19

Source	KSERC approval		Actual		Truing up		Difference	
	Energy* (MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)
Maithon Power Ltd-I	1105.73	415.79	1047.56	436.6647	1047.56	436.66	-58.17	20.87
Maithon Power Ltd-II	1105.73	415.79	1047.54	436.8065	1047.54	436.81	-58.19	21.02
DVC Mejia	705.5	273.27	593.58	261.6186	593.58	261.62	-111.92	-11.65
DVC RTPS	348.1	136.92	266.41	127.8444	266.41	127.84	-81.69	-9.08
Jindal Power Ltd-Bid I	1,497.96	555.28	1428.54	537.3117	1428.54	537.31	-69.42	-17.97
Jhabua Power Ltd-PSA I	861.33	332.47	793.97	349.1103	793.97	313.22	-67.36	-19.25
Jindal Power Ltd-Bid II	1,123.47	466.17	1071.64	470.7141	1071.64	470.71	-51.83	4.54
Jhabua Power Ltd-Bid II	748.98	310.78	690.43	348.9918	690.43	321.60	-58.55	10.82
JITPL	748.98	310.78	751.11	327.1836	751.11	327.18	2.13	16.40
BALCO	748.98	310.78	764.03	310.5395	764.03	310.54	15.05	-0.24
Subtotal	8994.76	3528.03	8454.807	3606.785	8454.81	3543.50	-539.95	15.47
* Energy at ex bus								

Considering the above, Hon'ble Commission may kindly approve the actual claim as per this petition.

d) Power purchase considered under short term contracts

In the MYT petition, KSEB Ltd has proposed to procure 91.80 MU of power from short term market to meet the peak deficit anticipated in the summer months. Hon'ble Commission vide order dated 08.07.2019 observed as follows:

“In the control period there will be overall energy surplus though there may be deficit in some months due to increase in peak demand or changes in climatic conditions or reasons such as general elections as mentioned by KSEB Ltd. Since such situations are difficult to predict and KSEB Ltd has proposed the same rate for the purchase and sale, the Commission for the purpose of approving the ARR & ERC has considered the net surplus energy sale only in all the years of the control period.”

It may please be noted that during 2019-20 there was reduction in energy procurement from Central Generating Stations by 1202.60 MU, energy availability from long term contracts was also less by 539.95 MU and the hydro generation by 1221.39 MU when compared with the approved quantum. This resulted in a total reduction in energy availability by 2870.23 MU over the approved quantum. Further purchase of renewable energy amounting to 988.86 MU approved by the Hon'ble Commission was not materialised. In order to meet the short fall, peak demand and exigencies, KSEBL purchased 990.25 MU at Kerala periphery through energy exchanges through Day ahead markets and term ahead markets and 513.50 MU through deviation settlement mechanism and availed 352.67 MU through banking arrangements.

Power purchase from Energy exchanges: KSEBL procured 990.25 MU at Kerala periphery at a cost of Rs 313.63 Cr from IEX and 9 MU at Kerala periphery for a cost of Rs 24.71 Cr from PXIL. The details are as follows:

Source	Energy* (MU)	Cost (Rs Cr)
IEX	928.68	313.63
PXIL	61.57	24.71
Sub total	990.25	338.34
* Energy at Kerala periphery		

Power availed through swap arrangement: - In addition to the above KSEBL had entered into banking arrangements with various utilities for availing supply of power through swap contracts. Hon'ble Commission vide order dated 28.05.2019 on OP No 33/2019 approved the banking arrangements with M/s Rajasthan Urja Vikas Nigam Ltd (RUVNL) through the trader M/s TPTCL with a trading margin of **Ps 0.47/unit**, and through M/s NVVN with a trading margin of **Ps 0.47/unit** as detailed in the table below. Further Hon'ble Commission vide order dated 24.10.2019 on OP No 47/2019 approved the banking arrangements with M/s HPPC through the trader MPPL for 150MW with a trading margin of **Ps 3.20 per unit**, with NPCL through the trader MPPL for 50MW with a trading margin of **Ps 3.50 per unit** and with HPPC through Arunachal Pradesh Power Corporation Pvt Ltd (APPCPL) for 100 MW at a trading margin of Ps 3 per unit for availing power in 2019-20.

KSEBL entered banking arrangement with M/s PTC India Ltd and M/s BSES Yamuna Power Ltd, from February 2020 to April 2020, which was approved by Hon'ble Commission vide order dated 14.01.2020. Further, unit 2 at Idukki HEP tripped on 20.01.2020 due to flashing of 11 kV bushing of excitation transformer and unit 6 of Idukki power station tripped on 01.02.2020 due to the flashing of lightning arrestor- voltage transformer. Due to the above forced outage, there was an additional shortage of 260 MW during peak and an energy shortage of around 40.3 MU during March 2020. In order to meet shortage due to this KSEBL entered banking arrangements with BRPL through Manikaran power Ltd for the month of March 2020 for procuring 50 MW RTC and 100 MW from 14.00hrs to 24.00 hours. **KSEBL filed petition before Hon'ble Commission on 30.03.2020 seeking approval for the banking transactions with BRPL for the month of March 2020.** KSEBL availed 55.90 MU for the month of March 2020, through banking transaction with BRPL.

Details of banking arrangements with M/s Rajasthan Urja Vikas Nigam Ltd (RUVNL) through the trader M/s TPTCL and through the trader M/s NVVN are detailed in the table below. The summary of the banking arrangements including its supply period, trading margin, return period, quantum of power to be returned etc are given below.

Sl No	Supply						Return				
	Trader	Utility	Period		Quantum MW	Duration Hrs	Utility	Return %	Period		Return duration hrs
			From	To					From	To	
1	GMRETL	PSPCL	01.04.19	30.04.19	100	RTC	KSEBL	106%	15.06.19	15.07.19	RTC
2	PTC	TPDDL	01.02.20	29.02.20	50	RTC	KSEBL	102%	16.06.2020	30.09.2020	0-4 & 17-18.30 & 22.30 to 24.00
					50	0-6	KSEBL	102%			
					100	20-24	KSEBL	102%			
			01.03.2020	31.03.2020	50	RTC	KSEBL	102%			

					100	0-6	KSEBL	102%			(uniformly distributed)
					50	18-20	KSEBL	102%			
					100	20-24	KSEBL	102%			
			01.04.2020	30.04.2020	50	RTC	KSEBL	102%			
					100	0-6	KSEBL	102%			
					25	18-23	KSEBL	102%			
3	BYPL	BYPL	16.02.2020	29.02.2020	75	RTC	KSEBL	103%	16.06.2020	30.09.2020	0-3 & 13-17 & 22-24. (uniformly distributed)
			01.03.2020	31.03.2020	75	RTC	KSEBL	103%	16.06.2020	30.09.2020	
4	Manikaran Power Ltd	BRPL	01.03.2020	31.03.2020		RTC	KSEBL	104%	01.07.2020	31.08.2020	04.00 to 18.00 in a uniformly distributed pattern
						14.00 to 24.00	KSEBL	104%			
6	NVVN	KSEBL	01-11-18	15-11-18	90	6-11	RUVNL	102%	05-01-2019	6/30/2019	RTC
			15-11-18	30-11-18	60						
			12-01-18	15-12-18	30						
			16-12-18	31-12-18	45						
7	TPTCL	KSEBL	01-11-18	15-11-18	60	6-11	RUVNL	102%	05-01-2019	6/30/2019	RTC
			15-11-18	30-11-18	40						
			01-12-18	15-12-18	20						
			16-12-18	31-12-18	30						

KSEBL has received 352.67 MU at Kerala periphery through swap arrangement. The details are as follows.

Table D29: Power availed thru banking arrangement for 2019-20				
Utility	Trader	Period	Energy at ex bus	Energy at Kerala periphery
			MU	MU
PSPCL	GMRETL	01-04-2019 to 30-04-2019	71.81	69.93
RUVNL	TATA	01-05-2019 to 30-06-2019	11.63	11.32
RUVNL	NVVN	01-05-2019 to 30-06-2019	17.44	16.99
BRPL	MPL	01-03-2020 to 31-03-2020	57.20	55.90
TPDDL	PTCIL	01-02-2020 to 31-03-2020	126.40	119.32
BYPL	BYPL	16-02-2020 to 31-03-2020	81.00	79.21
Total			365.48	352.67

4.6.5 Power returned through banking arrangement (SWAP): -

KSEBL returned 231.93 MU during 2019-20 through banking arrangement (swap). The table given below shows the details of power returned to utilities outside the state through banking arrangement.

Table D30: Power returned to utilities outside State				
Utility	Trader	Return Period	Energy at Kerala periphery (MU)	Energy at delivery point (MU)
PSPCL	GMRETL	June-July 2019	77.21	76.12
HPPC	Mittal	July-August 2019	44.41	43.65
HPPC	APCPL	July-August 2019	97.86	96.86
NPCL	Mittal	July-September 2019	12.45	12.2
Sub total			231.93	228.83

A total expenditure of Rs 6 Cr has been incurred on these banking arrangements.

4.6.6 Deviation settlement mechanism: KSEBL has received a net energy of 513.50 MU from Southern grid through deviation settlement mechanism (DSM) at an average rate of Rs 2.44 per unit at a cost of Rs.122.13 Cr.

In view of the details furnished above, it may kindly be seen that the shortfall in energy availability from approved sources had been effectively met through procurement of power from various sources. Details of approval obtained from the Hon'ble Commission are furnished in **Appendix D2**. The details of purchases through long-term, short-term contracts are given as **Appendix D3**. The summary of power Purchase from power exchanges and power transfer through deviation settlement mechanism against quantum approved towards short term contracts for FY 2019-20 is furnished below:

Table D 31: Details of power purchase against approval for short term procurement								
Source	Approval (at Kerala periphery)			Actual (at Kerala periphery)			Difference	
	Energy (MU)	Cost (Rs Cr)	Rate Rs/unit)	Energy (MU)	Cost (Rs Cr)	Rate Rs/unit)	Energy (MU)	Cost (Rs Cr)
IEX				928.68	313.63	3.38		
PXIL				61.57	24.71	4.01		
Deviation Settlement Mechanism				513.50	122.13	2.38		
Total	0	0	0	1503.75	460.47	3.06	1503.75	460.47

4.6.7 Energy sale outside the State: - Hon'ble Commission approved sale of surplus power of 1885.4 MU for a total revenue of Rs 942.70 Cr. Due to the reduction in availability mentioned earlier KSEBL could not sell the energy as approved in the MYT order. KSEBL sold 55.95 MU of power through exchanges during 2019-20 for a total revenue of 19.10 Cr as given in table below. The details of energy sale through exchanges are given in table below:

Table D32 Energy sale o/s State through contracts			
SI No	Source	Energy at SR periphery	Energy at KSEB periphery
		MU	MU
1	IEX TAM	2.05	2.08
2	IEX DAM	39.81	40.52
3	IEX Total	41.86	42.59
4	PXIL TAM	13.18	13.35
5	PXIL DAM	0	0
6	PXIL Total	13.18	13.35
Total		55.03	55.95

The expenditure associated with sale through power exchanges amounts to Rs 0.74 Cr.

Thus, KSEBL sold 55.95 MU for a total amount of Rs 19.10 Cr. @ Rs 3.41 per unit against the approved quantum of 1885.4 MU for Rs 942.70 Cr. It may kindly be noted that KSEB Ltd could realise a higher rate from sales through short term market than the rate derived while procuring power through short term market (Rs 3.06 per unit).

4.6.8 Inter-state Transmission charges paid to PGCIL: Hon'ble Commission, vide order dated 08.07.2019, approved interstate transmission charges of Rs 555.46 Cr for 2019-20. Actual transmission charges incurred by KSEBL during 2019-20, as per audited accounts, were Rs. 567.34 Cr. Actuals may kindly be approved.

The total power purchase cost as per annual accounts is Rs 8680 Cr. Rs 0.18 Cr towards the purchase cost of LED lights is accounted under the head power purchase cost. As stated in above paragraphs Rs 77.31 Cr towards the unadmitted claims towards Jhabua power Ltd is not claiming in this petition. Hence Hon'ble Commission may kindly true up the total power purchase cost amounting to Rs 8616.54 Cr as detailed in **Appendix D4**, summary of which is provided in table below.

Table D 33 True up claim of Power Purchase cost for the year 2019-20	
Particulars	Amount (Rs Cr)
Power Purchase as per accounts	8680
Less purchase cost of LED lights	0.18
Less provision of Jhabua Power Ltd 115 MW towards unadmitted claims	41.82
Add back the admitted claim of Jhabua Power Ltd 115 MW towards deemed availability	5.93
Less provision of Jhabua Power Ltd 115 MW towards unadmitted claims	35.51
Add back the admitted claim of Jhabua Power Ltd 115 MW towards deemed availability	8.12
Power Purchase claimed in the truing up petition	8616.54

4.7 O&M Expenses:

4.7.1 Actual O&M expenses for SBU D for the year 2019-20 has been Rs. 3224.44 Cr as detailed in Form D3.4.

4.7.2 Cost Drivers: Tariff regulation, 2018 considers the following cost drivers for determination of normative O&M expenses. The growth of the drivers is given in the Table – D26 below.

Table – D34 : Distribution Cost Drivers											
Item	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY-18	FY-19
Consumers (Nos)	9363461	9743476	10127946	10457637	10806890	11192890	11430895	11668031	11994816	12276321	12552206
Dist Transformers (Nos)	46359	52149	57954	62329	64972	67546	71199	73460	75759	77724	79876
HT Lines (KM)	41283	44682	48342	51328	52907	53579	57309	59476.66	61398.43	62855	64393.5
Energy Sales (MU)	12414	13971	14548	15981	16838	17454	18426	19325.07	20087.55	20998	22369.59

4.7.3 The parameters of FY-19 are taken for computing normative O&M expenses. The normative values of employee cost and A&G expenses is given in table below:

Table D 35: Normative O& M expenses for 2019-20		
No	Parameters	Quantity
1	No. of consumers (Rs. Lakh/1000)	5.03
2	Dist Transformers (Rs. Lakh/DTr)	0.67
3	Length of HT line (Rs. Lakh/km)	0.83
4	Energy sales (Rs/unit)	0.2
5	No. of consumers	12552206
6	No. of Dist Transformers (Nos)	79876
7	HT Line (Ckt-Km)	64393.5
8	Energy sales in MU	22369.59
9	Employee, A&G Cost (Rs Cr)	2148.403

4.7.4 As per the provision 79 and Annexure IX of Tariff regulations 2018, R&M expenses of Distribution licensees is:

- (i) *3% of Opening GFA (excluding value of land and land under lease) of distribution business of each year of the control period.*
- (ii) *Repair and Maintenance expenses for assets added during the year of the control period shall be allowed after prudence check by the Commission on a pro-rata basis subject to production of details of the assets.*

Based on the above normative R&M expense is calculated as follows:

Table D 36: Normative R&M expenses (Rs Cr.)	
Particulars	Amount (Rs Cr)
Opening GFA Excluding Land value (Rs Cr.)	9271.03916
Less land	19.91
R& M @ 3% on opening GFA-A	277.53
Addition of assets during the year	1641.84

R&M at prorata basis for assets added during the year			
	Pro rata GFA addition	Pro rata % based on works in 2018-19	Pro rata R&M expenses
April	67.37	4.10	1.85
May	150.84	9.19	3.77
June	123.70	7.53	2.78
July	55.63	3.39	1.11
August	91.77	5.59	1.61
September	74.86	4.56	1.12
October	65.51	3.99	0.82
November	70.15	4.27	0.70
December	103.31	6.29	0.77
January	207.56	12.64	1.04
February	367.96	22.41	0.92
March	263.19	16.03	0.00
Total	1641.84		
R&M expenses for assets added during FY-19 -B			16.50
Total R&M expenses (A+B)			294.04

4.7.5 A comparison of approved normative and actual O&M expenses is given in table below

Table – D37 : Components of O&M Expenses for SBU D (Rs Cr)							
No	Particulars	Approved	As per accounts	Normative	True up claim	Variation of true up claim from approval	Remarks
1	Employee Cost & A&G Expenses	2142.56	2982.47	2148.40	2148.40	5.84	See Form D3.4 (a)
2	R&M Expenses	316.39	241.97	294.04	294.04	-22.35	See Form D3.4 (c)
3	Total	2458.95	3224.44	2442.44	2442.44	-16.51	See Form D 3.4

4.7 Onetime expenses/ Flood related Expenses

As per the definition in Tariff Regulation, 2018, flood is a force majeure condition. Further, as per Regulation 79(10) the one-time maintenance of special nature not in the form of routine repair and maintenance if any is required and is undertaken for the distribution system, expenses for such maintenance may be allowed by the Commission after prudence check considering the details and justification furnished by the Distribution business/ Licensee for incurring such an expenditure to the satisfaction of the Commission. KSEBL incurred Rs.24.72 Cr. for restoration of distribution infrastructure due to natural calamities in accordance with Regulation 79(10) and Hon'ble Commission may kindly approve the same.

4.8. **Depreciation:**

Hon'ble Commission had approved the depreciation of SBU-D for FY 19-20 at Rs 93.47 Cr. Actual Depreciation for the Distribution assets as per accounts for the year 2019-20 has been Rs.480.42 Cr as detailed in **Form D3.5 (2)**.

Hon'ble Commission may kindly note that depreciation as per accounts has been worked out in line with IND AS and claw back depreciation was determined and credited to other income. But, as per MYT Regulation for the control period, depreciation is allowable as per the provisions contained in the Tariff Regulations, 2018 in which applicable rates as well as methodology to be followed are specified therein. Accordingly, allowable depreciation for SBU D has been worked out at **Rs.119.27 Cr** as detailed in Chapter 5. Hon'ble Commission may kindly approve the same.

4.9.1 Hon Commission had approved the interest and finance charges of SBU-D for the year 2019-20 at Rs.1421.47 Cr. However, as per the audited accounts, the actual expenses incurred under interest and finance charges were Rs.1304.17 Cr (after capitalized portion of interest). KSEBL is eligible to claim Rs.1779.49 Cr. The details are furnished below.

Table D38: Comparison of I&FC for 2019-20 (Rs. Cr)				
No	Particulars	Approved	Accounts	True up sought
1	Interest on outstanding Loans and Bonds	222.94	371.45	
2	Less: Interest capitalized	0.00	211.77	
3	Net interest	222.94	159.68	272.17
4	Interest on Security Deposit	199.93	196.29	173.05
5	Interest on GPF	162.58	146.63	146.63
6	Other Interest	0.00	11.97	11.97
7	Interest on Master Trust Bond	612.43	627.56	627.56
8	Carrying cost on revenue gap till 2018-19	223.59		521.94
9	Carrying cost on revenue gap for 2019-20	0.00		26.16
9	Interest on working capital	0.00	162.04	0.00
10	Grand Total	1421.47	1304.17	1779.49

4.9.2 KSEBL has executed capital works to the tune of Rs 1544.65 Cr and added fixed assets of Rs 1643.78 Cr under SBU D during the year as detailed in Chapter 5. Physical addition to fixed assets is summarized below:

Table – D39 : Details of Capital Works during 2019-20	
Particulars	Achievement
Service Connections (Nos)	380584
HT Line construction (km)	1984.05
LT Line construction (km)	3689
Transformer installation (Nos)	2023
Line conversion (km)	2244.51
HT re-conductoring (conductor km)	786.47
LT re-conductoring (conductor km)	20141.54
Faulty meter replacement (Nos)	1197183

4.9.3 The normative loan at the beginning of the year (01.04.2019) has been determined as per Regulation by considering GFA, Approved depreciation, Consumer contribution and grants and Equity. Based on the methodology adopted by the Hon'ble Commission, normative loan as on 01.04.2019, addition, repayment and closing normative loan as on 31.03.2020, interest on normative loan along with SBU wise segregation are determined and furnished in chapter 5.

Based on the computation, KSEBL is entitled to Rs. 272.17 Cr as interest on normative loan for the year 2019-20.

4.9.4 Interest on security deposit: Hon'ble Commission approved interest on SD for the year at Rs.199.93 Cr. The Actual Security Deposit balance as per accounts was **Rs 3021.22 Cr** at the beginning of the year (01-04-2019) on which the interest at 6.50 % was provided in FY 2019-20 (**Rs.196.29 Cr**). However, the actual sum disbursed in the FY 2019-20 was against the provision made for FY 2018-19 was Rs.173.05 Cr (disbursement against provision made for FY 2018-19 of Rs 177.31 Cr). Hon'ble Commission may please approve the actual disbursement of **Rs. 173.05 Cr** under SBUD.

4.9.5 Interest on working capital: The Normative Working Capital for SBU-D, as per Regulation 32, includes O&M Cost for one month, cost of maintenance spares as one twelfth of average of the book value of stores for that financial year, receivables for two months excluding security deposits. KSEB Ltd has computed the Interest on Working Capital in their petition at a rate of 10.15% (8.15% + 2%) as per Regulation 32(2). The parameters adopted for computation of Interest on Working capital for the control period are furnished below.

Table D40 Parameters for estimation of working capital (SBU D)		
Opening GFA (Rs.Cr.)		9271.04
One twelfth of average of Inventory (Rs Cr.)		59.62
O&M Cost (Rs.Cr.)	2442.44	
Pay revision provision	204.56	
Additional contribution to Master Trust	167.10	2814.10
Revenue for the year 2019-20		14037.64

4.9.6

Based on the above, net working capital computed is negative as calculated below. Therefore, no claim is made towards interest on working capital.

Table D 41 Interest on working capital (Rs Cr)	
O&M Exp for 1 month	234.51
Maintenance spares @ One twelfth of average of opening and closing balance of Inventory	59.62
Revenue (2 months)	2339.61
Total	2633.74
Less Security deposit	3205.21
Net Working Capital	-571.47

Since the Working Capital requirement is less than the security deposit held at the beginning of the year, KSEB Ltd is not claiming any interest on working capital for 2019-20.

4.9.7 Carrying cost on approved revenue gap: Hon'ble Commission approved carrying cost of Rs. 229.59 Cr for the year 2019-20 after deducting average GPF balance from the approved gap to determine the revenue gap for which carrying cost is eligible. Actual average interest on loans during 2019-20 had been 9.76 %. Accordingly, a sum of Rs. 759.88 Cr towards revenue gap sought for true up 2018-19 and Rs. 526.94 Cr (before carrying cost) towards revenue gap in

2019-20 is considered for claiming carrying cost for the year 2019-20 as detailed in chapter 5. Hon'ble Commission may please approve Rs. 548.11 Cr towards carrying cost for 2019-20 under SBU D.

4.9.8 **Interest on PF:** Hon'ble Commission approved Rs 162.58 Cr towards interest on PF for 2019-20. But as per the audited accounts, the actual interest on PF was Rs.146.63 Cr, which is less by Rs. 15.95 Cr. Therefore Rs.146.63 Cr is sought for true up as detailed in chapter 5, which may kindly be approved.

4.9.9 **Interest on Master Trust Bonds:** State Government, as per notifications dated 31.10.2013 and 28.01.2015, ordered creation of a Master Trust for meeting the unfunded liability of pension, gratuity and leave surrender as on 31.10.2013, in respect of the personnel transferred from erstwhile KSEB to KSEBL. The total liability as on 31.10.2013 was estimated at Rs.12418.72 Cr and necessary funding arrangements put in place through issue of 2 series of Bonds. Hon Commission recognized the unfunded pension liabilities as above and approved recovery of interest on KSEBL share of Bonds as per Tariff Regulations, 2014. Thus, Hon'ble Commission approved Rs.612.43 Cr towards interest on Master Trust bonds against share of SBU D. Actual share of expenses for SBU D has been Rs.627.56 Cr as detailed in chapter 5, which may kindly be approved.

4.9.10 Further, Hon'ble Commission was pleased to provisionally approve Rs.167.10 Cr towards interest on unfunded terminal liabilities under SBU-D. KSEBL seeks truing up of Rs.167.10 Cr also as detailed in chapter 5.

4.9.11 In view of the above submission, Hon'ble Commission may kindly approve interest and finance charges as summarized below:

Item	Approval	Actual	TU requirement	Difference over approval
Interest on Loan	222.94	371.45	272.17	-49.23
Security Deposit Interest	199.93	196.29	173.05	26.88
Master Trust Bond Interest	612.43	627.56	627.56	-15.13
Overdraft interest	0	162.04	0	0
PF interest	162.58	146.63	146.63	15.95
Other interests		11.97	11.97	-11.97
Carrying cost on revenue gap till 2018-19	223.59	0	521.94	-298.35
Carrying cost on revenue gap for 2019-20			26.17	-26.17
Total	1421.47	1515.94	1779.49	-358.02
Less: Interest capitalized	0	211.77	0	0
I&FC net of capitalization	1421.47	1304.17	1779.49	-358.02

4.10 Return on Equity:

Hon'ble Commission vide order dated 08.07.2019 approved Return on equity at Rs 253.50 Cr, which, the Hon'ble Commission may kindly true up.

4.11 Other debits and Prior period expenses/income:

As detailed in chapter 5, a sum of Rs. 20.59 Cr is sought for true up, predominant portion of which represents withdrawal of income recognized in earlier years.

4.12 Non-tariff income and other income: Hon'ble Commission approved 176.11 Cr and Rs.371.99 Cr under non-tariff income and other income respectively. The share of non-tariff income of SBU D as per accounts is detailed in Form D 2.4. However, as detailed in chapter 5, a sum of Rs. 500.33 Cr is sought for true up against approval of Rs 548.10 Cr.

4.13 Tariff income: Hon'ble Commission approved revenue from sale of power as Rs 13254.67 Cr (22969.69 MU) and net revenue as Rs 13209.68 Cr after deducting Rs 44.99 Cr as power factor incentive. Further, approved Rs 942.7Cr (1885 MU) towards revenue from surplus energy sales outside the State.

Hon'ble Commission vide tariff order dated 08.07.2019 (wef 08.07.2019) approved to recover an additional amount of Rs. 902.90 Cr through revision during the year 2019-20. Thereafter, allowed to recover an amount of Rs 62.65 Cr as fuel surcharge from LT consumers and from HT & EHT consumers from February onwards for three months as per order dated 14.02.2020. Against these, the actual revenue from internal sale of power including fuel surcharge during the year 2019-20 was Rs. 14037.64 Cr (22660.93 MU) and external sale Rs. 19.11Cr (55.95 MU). The reduction in external sales was due to the reduction in power availability as mentioned earlier in this chapter.

Thus, the revenue from tariff during the year 2019-20 has been Rs. 14037.64 Cr which is inclusive of Fuel Surcharge approved for FY-19 collected during 2019-20 as disclosed in **Form D 2.1**. A summary of the revenue from sale of power inside the State as well as outside State is given below.

No	Category	Energy sales		Revenue	
		MU	%	Rs Cr	%
1	Domestic	11898.13	52.51	5262.80	37.49
2	Commercial	3426.48	15.12	3394.22	24.18
3	Public lighting	365.86	1.61	175.59	1.25
4	Irrigation & Dewatering	348.48	1.54	97.60	0.70
5	Industrial LT	1085.16	4.79	837.70	5.97
6	Railway Traction	305.21	1.35	194.20	1.38
7	Bulk Supply	615.73	2.72	396.74	2.83
9	HT	3738.77	16.50	3057.71	21.78
10	EHT	877.11	3.87	621.08	4.42
11	Total sales (within state)	22660.93	100	14037.64	100
12	Interstate sale	55.95		19.11	
13	Total	22716.88		14056.75	

4.14 Hon'ble Commission while approving the revenue from sale of power had deducted Rs 44.99 Cr. as power factor incentive against which the actual is Rs 56.95 Cr (Rs. 102.65 Cr as per accounts, explained in detail in chapter 5). Accordingly, actual power factor incentive to the tune of Rs. 56.95

Cr deducted from the revenue from SoP (which was booked under A&G expenses as explained in chapter 5). The revenue from sale of Power includes fixed charges/demand charges, energy charges, the subsidy allowed by the Government in the case of domestic consumers with monthly consumption up to 120 units and LT Agricultural consumers and fuel surcharge. It may be seen that 52.51% of total consumption was domestic which contribute 37.49 % of revenue. Actual revenue was less by Rs. 152.58 Cr from approval. A comparison of approved vs actual sale is given in table below.

Table – D39 : Revenue comparison Approved Vs Actuals							
No	Category	Energy sales (MU)			Revenue (Rs. Cr)		
		Approved	Actual	Deviation	Approved	Actual*	Deviation
1	Domestic	11444.92	11898.13	453.20	4747.70	5262.80	515.10
2	Industrial	1134.68	1085.16	-49.50	804.74	837.70	32.96
3	Agriculture	368.65	348.48	-20.20	88.06	97.60	9.54
4	Commercial	3451.09	3426.48	-24.60	3178.93	3394.22	215.29
5	Public Lighting	404.36	365.86	-38.50	187.93	175.59	-12.34
6	HT & EHT Total	5239.95	4615.89	-624.10	3673.61	3678.79	5.18
7	Railway Traction	293.05	305.21	12.20	179.27	194.20	14.93
8	Bulk Supply	632.99	615.73	-17.30	394.43	396.74	2.31
9	Total sales (within state)	22969.65	22660.93	-308.80	13254.67	14037.64	782.97
10	Interstate sale	1885.40	55.95	-688.49	942.70	19.11	-923.59
11	Total	24855.05	22716.88	-997.29	14197.37	14056.75	-140.62
12	Less Power Factor incentive				44.99	56.95	11.96
13	Revenue from Sale of power	24855.05	22716.88	-997.29	14152.38	13999.80	-152.58

- 4.16 Hon'ble Commission may kindly true up revenue from sale of power (including external sale) as above.
- 4.17 Hon'ble Commission had amortized a portion of past approved revenue gap of Rs.1000 Cr. It may kindly be seen that revenue surplus actually does not materialize for amortizing any portion of revenue gap approved in the past.
- 4.18 Summary of ARR & ERC of SBU D for the year 2019-20 is furnished below:

TABLE – D44 : ARR & ERC OF DISTRIBUTION BUSINESS UNIT (Rs Cr)				
Particulars	Approved	Actual	True up	Difference
Cost of Generation (SBU-G)	505.93	613.29	514.80	-8.87
Cost of Power Purchase	8613.94	8680.00	8616.54	-2.60
Cost of Intra-State Transmission (SBU-T)	983.69	1037.63	909.89	73.80
NLDC charges	3.00			3.00
Interest & Finance Charges	1197.88	1304.17	1231.38	-33.50
Carrying cost of revenue gap	223.59		548.11	-324.52
Depreciation	93.47	480.42	119.27	-25.80
O&M Expenses	2458.95	3199.72	2442.44	16.51
Pay revision provision			204.56	-204.56
Return on equity (14%)	253.50		253.50	0.00
Other Expenses		20.59	20.59	-20.59
Exceptional items		24.72	24.72	-24.72
Sharing of gains on account of higher T&D loss reduction			19.44	-19.44
Recovery of previous gap	1000.00			1000.00
Interest on un funded actuarial liability	167.10		167.10	0.00
Total ARR	15501.04	15360.52	15072.34	428.70
Tariff Income incl fuel surcharge	13254.67	14363.38	14056.75	-802.08
Less Power factor incentive	44.99	102.65	56.95	-11.96
Revenue from external sale	942.70	19.11	19.11	923.59
Non-Tariff Income	548.10	487.58	500.33	47.77
Total ERC	14700.48	14767.42	14519.24	181.24
Net Revenue Gap (-)/ Surplus (+)	-800.56	-593.10	-553.10	-247.46

- 4.19 As shown above the total revenue gap for the year 2019-20 is Rs.553.10 Cr as against the approved revenue gap of Rs 800.56 Cr.
- 4.19 Appendices described in paragraphs above are attached here under. The forms are attached thereafter. The next chapter contains explanations relating to various expenses and income in general.

Appendix-D1	
Power Availability for 2019-20	
Month	Gross Availability of electricity for Supply
April	100.04%
May	100.66%
June	101.29%
July	100.92%
August	108.58%
September	103.71%
October	103.06%
November	103.39%
December	101.08%
January	102.31%
February	101.75%
March	103.68%
Average	102.54%

Appendix –D2: Details of approval of .ong term contracts for procuring power during 2019-20				
Source	Contracted Capacity (MW)	Commission Approval Letter	Period of contract	Approved Tariff
Long Term contracts				
Maithon Power	150	No.2158/C.Engg/Maithon/2013/1398 dated 26.12.2013	25 years	Approved under Section 62 of Electricity Act 2003
Maithon Power	150	Order dated 08 - 07- 2015	25 years	
DVC Mejia	100	No.500/C.Engg/DVC/2014/348 dated 28.03.2014 & Order dated 21.01.2016	25 years	
DVC RTPS	50		25 years	
Jindal Power Ltd- PSA I (DBFOO)	200	Order dated 30.8.2016	25 years	Approved under Section 63 of Electricity Act 2003.
Jhabua Power Ltd-PSA-I (DBFOO)	115	Order dated 22.12.2016	25 years	
Jindal Power Ltd- PSA I (DBFOO)*	150	Letter dated 22.12.2017	25 years	
Jhabua Power Ltd-PSA-I (DBFOO)*	100	Letter dated 22.12.2017	25 years	
JITPL*	100	Letter dated 22.12.2017	25 years	
BALCO	100	Order dated 30.8.2016	25 years	

*Rate yet to be approved

Appendix – D3 : Actual Rate of Power from external IPPs, traders and energy exchanges,DSM,swap				
Name of IPP/trader	Energy at exbus(MU)	Energy at Kerala end (MU)	True up claim of power purchase cost (Rs Cr)	Rate at exbus (Rs/unit)
Long Term contracts				
Maithon Power Ltd-I	1047.56	1008.09	436.66	4.17
Maithon Power Ltd-II	1047.54	1008.09	436.81	4.17
DVC Mejia	593.58	574.94	261.62	4.41
DVC RTPS	266.41	258.20	127.84	4.80
Jindal Power Ltd-Bid I*	1428.54	1368.37	537.31	3.76
Jhabua Power Ltd-Bid I	793.97	767.32	313.22	3.94
Jindal Power Ltd-Bid II*	1071.64	1026.50	470.71	4.39
Jhabua Power Ltd-Bid II	690.43	667.25	321.60	4.66
JITPL	751.11	725.50	327.18	4.36
BALCO	764.03	732.84	310.54	4.06
Subtotal	8454.81	8137.11	3543.50	4.19
Short term contract				
IEX	953.07	928.68	313.63	3.29
PXIL	63.13	61.57	24.71	3.91
Deviation Settlement Mechanism	513.50	513.50	122.13	2.38
Swap Purchase	365.48	352.67	6.00	
Total	10349.99	9993.52	4009.98	3.87
<i>Note: Except Maithon &DVC all rates are inclusive of interstate transmission charges</i>				

Appendix – D4: Source wise details of Power Purchase for 2019-20						
No	Source	Approved Energy (MU)	Approved Cost (Rs Cr)	Actual Energy	Actual Power purchase	True up claim(Rs Cr)
				(MU)	costCost (Rs Cr)	
1	CENTRAL GENERATING STATIONS					
	RSTPS I & II	1808.01	577.40	1791.47	589.07	589.07
	RSTPS III	453.27	144.50	444.05	147.60	147.60
	Talcher Stage-II	3172.90	770.00	2829.95	786.11	786.11
	Simhadri TPS Stg II	584.87	256.20	564.87	279.79	279.79
	NLC Stage-I	397.35	134.10	457.87	157.18	157.18
	NLC Stage-II	567.42	193.00	620.91	217.37	217.37
	NLC 1 Expansion	429.02	147.80	520.95	210.12	210.12
	NLC II Expansion	282.78	140.90	242.70	119.19	119.19
	MAPS	123.59	34.37	75.94	3.68	3.68
	KAIGA	486.76	180.50	545.38	122.39	122.39
	Kudankulam	1538.37	644.30	1403.35	586.97	586.97
	Vallur	347.05	169.00	255.94	161.76	161.76
	NTPL	501.99	238.80	415.08	198.81	198.81
	Kudgi	742.20	404.90	284.12	247.61	247.61
	Bhavini	237.31	99.39	0.00	0.00	0.00
	NNTPS	0.00	0.00	17.71	8.24	8.24
	Eastern region	0.00	0.00	0.00	0.01	0.01
	Aravally Corporation Ltd				0.00	0.00
	Total	11672.89	4135.16	10470.29	3835.91	3835.91
	PGCIL losses	430.94		388.28	0.00	0.00
	Sub Total	11241.94	4135.16	10082.01	3835.91	3835.91
2	INDEPENDENT POWER PRODUCERS					
	RGCCPP, Kayamkulam	0	0	0	100.22	100.22
	Wind- Ramakkalmedu	27.87	8.75	23.10	19.00	19.00
	Wind-Koundikkal	12.56	3.94	26.70	0.00	0.00
	Wind- Agali	29.72	9.33	10.75	0.00	0.00
	Wind Ahalya	20.98	10.97	19.23	10.05	10.05
	INOX	30.84	12.61	37.21	15.22	15.22
	Kosamattom	0.00	0.00	1.61	0.50	0.50
	Wind Sub total	121.97	45.61	118.60	44.77	44.77
	Ullunkal(EDCL)	17.79	4.34	18.10	4.42	4.42
	Iruttukanam Stage-I & II(Viyyat)	24.69	6.67	18.25	5.03	5.03
	Karikkayam HEP(AHPL)	37.56	15.62	36.37	15.13	15.13
	Meenvallom(PSHCL)	8.44	4.12	6.80	3.29	3.29
	Kallar of Idukki District Panchayat	0.08	0.04	0.00	0.03	0.03
	Mankulam of Grama Panchayat	0.00	0.00	0.00	0.00	0.00
	Minar Renewable energy project Ltd	0.00	0.00	0.00	0.18	0.18
	SHEP subtotal	88.65	30.84	79.51	28.07	28.07
	Solar					0.00
	Solar IREDA	70.08	27.33	73.16	28.04	28.04
	Solar IPP ANERT	0.00	0.00	2.59	0.00	0.00
	Grid connected -solar	0.00	0.00	8.74	1.47	1.47
	Solar subtotal	70.08	27.33	84.49	29.51	29.51
	Subtotal IPPs	280.70	103.78	282.60	202.57	202.57
	Net CPP Energy injection			22.46	0.00	0.00
	PCBL(Deviation adjustment)			3.18	0.00	0.00
	Sub total	280.70	103.78	308.23	202.57	202.57
	<i>Continued...</i>					

No	Source	Approved Energy (MU)	Approved Cost (Rs Cr)	Actual Energy	Actual Power purchase cost (Rs Cr)	True up claim (Rs Cr)
				(MU)		
3	Long Term Contracts					
	Maithon Power Ltd-I	1105.73	415.79	1047.56	436.66	436.66
	Maithon Power Ltd-II	1105.73	415.79	1047.54	436.81	436.81
	DVC Mejia	705.5	273.27	593.58	261.62	261.62
	DVC RTPS	348.1	136.92	266.41	127.84	127.84
	Jindal Power Ltd-Bid I*	1497.96	555.28	1428.54	537.31	537.31
	Jhabua Power Ltd-Bid I	861.33	332.47	793.97	349.11	313.22
	Jindal Power Ltd-Bid II*	1123.47	466.17	1071.64	470.71	470.71
	Jhabua Power Ltd-Bid II	748.98	310.78	690.43	348.99	321.60
	JITPL	748.98	310.78	751.11	327.18	327.18
	BALCO	748.98	310.78	764.03	310.54	310.54
	PGCIL losses	347.7		317.70		
	Sub Total	8647.06	3528.03	8137.11	3606.79	3543.50
4	Short term/Exchanges/swap					
	IEX			928.68	313.63	313.63
	PXIL			61.57	24.71	24.71
	Deviation Settlement Mechanism			513.50	122.13	122.13
	Purchase thru banking arrangements			352.67	6.00	6.00
	Subtotal			1856.42	466.48	466.48
	RPO-Solar	485.51	145.65			
	RPO-Non solar	503.35	145.97			
	Transmission charges payable to PGCIL		555.46		567.34	567.34
	Total	21158.56	8613.94	20383.77	8679.08	8615.81
	Power returned through banking arrangements			287.88		
	Sale through IEX			42.59	0.74	0.74
	Sale through PXIL			13.35		
	Power Purchase	21158.56	8613.94	20383.77	8679.82	8616.54

ARR and Tariff Formats
Distribution Business
INDEX

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20	Form D 3.7	Interest on Working Capital
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Other Information/Documents		
1	Form D P&L	Profit & Loss Account
2	Form KSEBL SBU-wise P&L	KSEB Limited SBU-wise Profit & Loss Account
3	Form Small Lic Distr P&L	Small Distribution Licensees - Distribution business Profit & Loss Account
4	Form D BS	Balance Sheet at the end of the year
5	Form D CF	Cash Flow for the year

6. Corporate audited/unaudited Balance Sheet and Profit & Loss Accounts with all the Schedules & annexures for the relevant years.

Note : Spread sheet financial models (in CD) shall also be submitted along with the application.

Form D 1.1

Summary of Aggregate Revenue Requirement

Name of Distribution Business/Licensee
Licensed Area of Supply

KERALA STATE ELECTRICITY BOARD LTD.

S.No.	Particulars	Reference form no.	Previous Year (n-1) -2019-20			
			Approved in Tariff Order	Audited	Normative	Truing Up requirement
1	2	3	4	5	6	7
1	Cost of own power generation/ power purchase	3.1	9119.87	10330.90		9131.34
2	Transmission Charges	3.2	983.69			909.89
3	NLDC/RLDC/SLDC Charges	3.3	3			
4	Operation & Maintenance Expenses	3.4	2458.95	3224.44	2647.00	2647
4.1	Employee Expenses	3.4	2142.565	2540.44		
4.2	Annual Contribution for Terminal Liabilities based on actuarial valuation					
4.3	Administration & General Expenses	3.4		442.02		
4.4	Repair & Maintenance Expenses	3.4		241.98		
5	Depreciation	3.5	93.47	477.79	119.27	119.27
6	Interest and finance charges on long term loans	3.6	222.94	159.68	272.17	272.17
7	Interest on Bonds to meet Terminal Liabilities	3.6	612.43	627.56		627.56
8	Interest on Working Capital/ carrying cost	3.7	223.59	162.04		548.11

9	Interest on consumer security deposits and deposits from Users of the distribution system		199.93	196.29		173.05
10	Any other item GPF INTEREST		162.58	146.63		146.63
	Others			20.59		20.59
	Amortisation of Intangible Assets/ Exceptional items			2.63		24.72
	Other Interest and finance Charges			11.97		11.97
	Prior Period Expenditure			0.00		
11	Amortization of past gap		1000			
12	Additional contribution to Master Trust		167.1			167.1
13	Adjustment for profit/loss on account of controllable/uncontrollable factors					19.44
14	Total Revenue Expenditure		15247.55	15360.52		14818.84
15	Return on Equity /Net Fixed Assets	3.8	253.5			253.5
16	Tax on ROE	3.9				
17	Aggregate Revenue Requirement (13+15)		15501.04	15360.52		15072.34
18	Less: Non Tariff Income	2.4	548.1	487.58		500.33
19	Less: Income from wheeling charges	2.2				
20	Less: Income from Other Business (to be specified)					
21	Less: Receipt on account of Cross Subsidy Surcharge on wheeling charges					
22	Less: Receipt on account of additional surcharge on charge of wheeling					
23	Aggregate Revenue Requirement from Retail Tariff		14952.94	14872.94		14572.01

Form D 2.1

Revenue from Sale of Power

Name of Distribution Business/Licensee
Licensed Area of Supply

KERALA STATE ELECTRICITY BOARD LTD.

KERALA STATE ELECTRICITY BOARD LTD.

(Rs Cr)

Year (n-1)* 2019-20

S.No.	Particulars	Number of consumers	Number of consumers billed	Connected Load of consumers	Units Sold (MU)	% of total Unit sold	Demand/ fixed charges@	Energy Charges @	Fuel Adjustment charges@	Total	Average rate/kwh	Excess Load/ excess demand charges @	Adjustment of past billing	Power factor surcharge /incentive	voltage rebate	load factor penalty/ incentive	Other charges if any@	DPS / LPS @	Sub-total	Other Rentals	Misc. recoveries@ (Net provision for unbilled revenue)	Sub-total	Avg. realisation per KWh (Excluding ED & Govt.levies @)	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
				KW	MU					8+9+10	paisa/kwh								(13) to (19)			(11)+(20)+(21)+(22)		
A)	Revenue from sale of Electricity to consumers (categories as per Tariff for supply of Electricity)																							
	LT Categories																							
1	Domestic						529.02	4777.53	4.99	5311.54							0.04		0.04		-40.01	5271.58		
2	Commercial						605.54	2788.17	1.61	3395.33							0.03		0.03		-1.14	3394.22		
3	Public Lighting						1.95	172.77	0.59	175.32							0.00		0.00		0.28	175.59		
4	Irrigation and Dewatering						54.49	44.00	0.56	99.05							0.01		0.01		-1.46	97.60		
6	Industrial LT						180.99	656.24	0.52	837.75							0.02		0.02		-0.07	837.70		
7	Railway Traction						35.19	158.71	0.13	194.03									0.00		0.16	194.20		
8	Miscellaneous							1.00		1.00									0.00		0.02	1.02		
9	HT Categories						545.01	2398.26	1.47	2944.74							6.72		6.72		106.25	3057.71		
10	Extra High Tension (EHT)						103.64	455.06	0.43	559.13							37.30		37.30		24.64	621.08		
11	Bulk Consumers/ Licensees						52.40	343.22	0.57	396.19									0.00		-0.47	395.72		
12	Revenue from sale of power outside the State																							
	Sale through power exchange							17.86		17.86									0.00			17.86		
	Sale to other States							1.25		1.25									0.00			1.25		
	Sale through Traders									0.00							16.02		16.02			16.02		
13	Total of items not shown categorywise									0.00									0.00			0.00		
a)	Reactive Energy Charges																		0.00			0.00		
b)	Electricity Duty Recovery																969.12		969.12			969.12		
c)	Other state Levies Recovery																17.04		17.04			17.04		
	Total Duty & Levies																							
d)	Wheeling charges Recoveries																3.65		3.65			3.65		
e)	Miscellaneous Charges from consumers																							
1	UCM																0.01		0.01			0.01		
2	SC Fee, etc.																0.00		0.00			0.00		
3	Other Items																38.09		38.09			38.09		
4	TF/RF																19.72		19.72			19.72		
5	Other Levies On Fee																27.54		27.54			27.54		
6	LE/SC Minimum																0.04		0.04			0.04		
7	Meter Box Charges																0.00		0.00			0.00		
8	Processing Fee for Allocation of Power																3.07		3.07			3.07		
9	STOA - Registration and Application fee																0.23		0.23			0.23		
10	STOA - Open Access charges																21.17		21.17			21.17		
11	Application fee®istration fee for grid connectivity to solar panels																5.21		5.21			5.21		
12	Penal charge for making the meter inaccessible for billing																0.00		0.00			0.00		
13	Energisation charges																0.37		0.37			0.37		
14	Power factor penalty																87.94		87.94			87.94		
14	Gross Revenue From Sale of Power						2108.23	11814.07	10.88	13933.19							1253.36		1253.36		88.21	15274.75		
	Less: i) Electricity Duty Payable to Govt. (Contra)																969.12		969.12		0.00	969.12		
	ii) Other State Levies Payable to Govt. (Contra)																17.04		17.04		0.00	17.04		
	iii) Board Consumption																8.79		8.79		-0.03	8.76		
15	Net Revenue from Sale of Power (A29-A30)						2108.23	11814.07	10.88	13933.19							258.42		258.42			14279.84		

Form D 2.2**from Wheeling****KERALA STATE ELECTRICITY BOARD LTD.**Name of Distribution Business/Licensee
Licensed Area of Supply**Year (n-1)*****2019-20**

(Rs Cr)

S.No	Open Access Consumer	Energy Wheeled at Kerala periphery	Total Revenue
	<u>1</u>	4	10=7+8+9
1	*Philips Carbon Black Limited Kochi Kerala	-35.96	
2	Alagappa Textiles (Cochin) Mills (A Unit of NTC) Alagappa Nagar Thrissur 680302	2.81	
	Amrita Institute Of Medical Science And Research Centre Edappally 682041 Kochi	9.84	
	Apollo Tyres Ltd Perambra Chalakkudy Kerala	26.89	
	Aster DM Healthcare Pvt Ltd South Chittoor PO Cheranellore Kochi 682027	6.44	
	AVT Natural Products Ltd South Vazhakulam Aluva Kochi Kerala 683105.2	0.56	
	BPCL Kochi Refinery (Consumer No 2/201) Ambalamugal PO Ernakulam Kerala 682302	17.81	
	BPCL Kochi Refinery STF Bharat Petroleum Corporation Limited Ambalamugal Er	5.83	
	Cannanore Spinning & Weaving Mills Kakkad Kannur Kerala 670005	5.42	
	Carborundum Universal Ltd P B 3 Koratty 680308 Trissur Kerala	24.20	
	Carborundum Universal Ltd P B I Kalamassery Development Plot P O Kochi 683109	50.01	
	Classic Auto Tubes Ltd Rubber Park Valayanchirangara P O Perumbavoor	0.14	
	Cochin Shipyard Ltd Administrative Building P O Bag No 1653 Perumanoor	6.03	
	EICL Limited TC 79/4 Veli Thiruvananthapuram 695021 Consumer No 1345230002576	4.26	
	EICL Limited TC 79/4 Veli Thiruvanthapuram 695021 Consumer No 1345130002595	2.67	
	FCI OEN Connectors Ltd Mulanthuruthy Kerala	0.72	
	Palakkad	0.14	
	GTN Textiles Ltd Aluva Kerala	12.22	
	Hindalco Industries Limited P B No 21 Kalamassery 683104 Ernakulam	4.10	
	Hindustan Organic Chemicals Ltd (Consumer No LCN 15/1515) Ambalamugal.1	6.36	
	Indsil Electrosmelts Ltd Pallathery (PO) Palakkad Kerala 678007	1.08	
	Kairali Steels & Alloys Pvt Ltd 134 A Kanjikode Palakkad 678621	1.94	
	Kerala Lakshmi Mills Pullazhi Thrissur 680012	2.29	
	LULU International Shopping Mall Pvt Ltd 34 1000 NH 47 Edappally Kochi	1.53	
	Malabar Cements Limited Walayar P O Palakkad 678624.1	0.66	
	MFAR Hotels & Resorts Pvt Ltd (Le Meridien) NH 47 Bypass Kundannoor Maradu	1.95	
	Minar Castings Pvt Ltd NIDA Kanjikode Palakkad Kerala 678621	0.42	
	MRF Limited PB No 2 Vadavathoor P O Kottayam 686010 Kerala	23.62	
	Nitta Gelatin India Ltd Gelatin Division Info Park P O Kakkanad Ernakulam	1.52	
	Nitta Gelatin India Ltd Ossein Division Kathikudam P O Thrissur District	1.16	
	Patspin India Limited Kanjikode East P O Palakkad Kerala 678621	11.14	
	Peekay Rolling Mills (P) Ltd Nallalam Kozhikode Kerala	2.66	
	Precot Meridian Ltd A Unit Kanjikode Palakkad Kerala 678623	16.73	
	Precot Meridian Ltd C&D Unit Walayar Palakkad Kerala	8.65	
	Premier Tyres Ltd (Consumer No 4/438) Kalamassery Ernakulam Kerala	8.63	
	Saint Gobain India Pvt Ltd P B No 1 Kanjikode West Kerala 678623	26.82	
	Tata Consultancy Services Ltd TCS Centre Infopark SEZ Infopark Kochi 682042	0.02	
	Kerala	1.53	
	The Kerala Minerals and Metals Ltd Chavara Kerala	25.30	
	The Travancore Cochin Chemicals Ltd (Consumer No HTB 1/102) PB No 4 Udyogamandal	80.09	
	Area	0.71	
	Vijaya Mohini Mills Thirumala PO Thiruvananthapuram 695006	1.02	
	Sub Total	405.86	3.65

Form D 2.3

Income from sale of surplus power

Name of Distribution Business/Licensee: KERALA STATE ELECTRICITY BOARD LTD.

Licensed Area of Supply

2019-20

(Rs Cr)

Month	Nature of transaction- Exchange	Volume of trading in	Income
		MU	
1	4	5	8
April	Exchange	0.06	
May		0.00	
June		0.07	
July		8.57	
August		47.23	
September		0.00	
October		0.01	
November		0.00	
December		0.00	
January		0.00	
February		0.00	
March		0.00	
TOTAL			55.95

Form D 2.4

Non-tariff Income

Name of Distribution Business/Licensee

Licensed Area of Supply

S. No.	Particulars	2019-20		
		Approved in Tariff Order	Audited	Truing Up requirement
1	2	3	4	5
1	Interest on staff loans and advances	0.1	0.05	0.05
2	Income from statutory investments			
3	Income from trading			
4	Income from rent of land or buildings	4.06	1.95	1.95
5	Income from sale of scrap	22	23.88	23.88
6	Income from wheeling	0.1	0.00	3.65
7	Rental from staff quarters	0.25	0.15	0.15
8	Excess found on physical verification	0.02		
9	Interest on investments, fixed and call deposits and bank balances	2.78	4.71	4.71
10	Interest on advances to suppliers/contractors	14.52	3.11	3.11
11	Income from hire charges from contractors and others	0	0.01	0.01
12	Income due to right of way granted for laying fibre optic cables/co-axial cables on distribution system	43.05	32.04	32.04
13	Reactive energy charges	50		16.02
14	Miscellaneous receipts	118.66	43.55	43.55
15	Commission for collection of electricity duty	9.54		
16	Interest on delayed or deferred payment of bills	20.01		
17	Rebate from Central Generating Stations	137	109.10	109.10
18	Revenue from late payment surcharge			
19	Recovery for theft and pilferage of energy	6.36	7.67	7.67
20	Meter/metering equipment/service line rentals	96.37	96.95	96.95
21	Clawback of Grant		164.44	
22	Miscellaneous charges from consumers	23.28		203.41
23	Total	548.10	487.58	546.22

Form D 2.5

Subsidy provided by the State Govt under Section 65 of EA 2003

Name of Distribution Business/Licensee

KERALA STATE ELECTRICITY BOARD LTD.

Licensed Area of Supply

S.No.	Consumer Category	Previous Year (n-1) - 2019-20					
		Tariff approved by Commission	Reference of Government directives	Relaxtion/ Subsidy committed by Government	Subsidy assessed	Reference of finance department order releasing subsidy amount	Subsidy actually received
1	2	3	4	5	6	7	8
1	Domestic Category (LT - 1(a))				367.19		
2	Tariff Revision 2012 Subsidy from Govt. For providing free supply of electricity to patients surviving on life support system				1.18		
3	Subsidy receivable from Govt. for exempting hike for Agri. consumers in Tariff Revision 2012				25.65		

Form D 2.7

Consumer Contribution, Capital Subsidy and Grant

Name of Distribution Business/Licensee

KERALA STATE ELECTRICITY BOARD

Licensed Area of Supply _____

(Rs. Cr)

S. No.	Particulars	2019-20			Remarks
		Approved in Tariff Order	Actually received	Balance Receivable	
1	2	3	4	5 = 4 - 3	12
1	Consumers Contribution for service connection lines and associated works	3563.14	342.24		
2	Any other contribution by consumers under any scheme.				
a)					
b)					
c)					
	Sub-Total		342.24		
3	Capital Subsidies from appropriate Government towards cost of Capital Assets		39.14		
4	Receipts from appropriate Government under any scheme as Grants		152.08		
5	Any Other item(to be specified)				
	Total		533.46		
	TOTAL				

Form D 3.1

Power Purchase Expenses for FY 2019-20

		Name of Distribution Business/Licensee		KERALA STATE ELECTRICITY BOARD LTD.									
S. No.	Source of Power (Station wise)	Installed Capacity	Utility share (%)	Utility share (MW)	Total Energy Sent Out (ESO) from the station (MU)	External Losses outside the State (%)	Energy Received at State boundary (MU)	Capacity Charges paid/payable by Utility (Rs Crore)	Variable Cost per unit including Fuel Price Adjustment (Rs/kWh)	Total Variable Charges (Rs Crore)	Incentive (+)/ Damage(-) (Rs Crore)	Any Other Charges (Please specify the type of charges)	Total Cost of Energy Received (Rs Crore)
1	2	3	4	5	6	7	8	12	13	14	15	16	17
	Central Generating stations												
1	RSTPS I & II	2100	12	245	1791.47	66.85	1724.62	125.65	2.64	472.45	0.00	-9.03	589.07
2	RSTPS III	500	12	61	444.05	16.54	427.51	32.95	2.60	115.54	1.29	-2.19	147.60
	Talcher Stage-II	2000	21	427	2829.95	103.95	2726.00	204.97	2.03	574.66		6.49	786.11
	Simhadri TPS Stg II	1000	9	86	564.87	20.96	543.91	94.21	3.29	185.91		-0.33	279.79
	NLC Stage-I	630	10	63	457.87	17.02	440.85	30.10	2.71	124.15	0.02	2.91	157.18
	NLC Stage-II	840	11	90	620.91	22.94	597.97	44.40	2.71	168.47	0.09	4.41	217.37
	NLC 1 Expansion	420	16	68	520.95	19.31	501.64	44.92	2.49	129.50	0	35.70	210.12
	NLC II Expansion	500	16	81	242.70	8.96	233.74	56.36	2.53	61.51	0	1.33	119.19
	MAPS	440	5	23	75.94	2.82	73.12		0.43	3.27	0.00	0.41	3.68
	KAIGA	880	17	73	545.38	20.24	525.14		2.20	119.85		2.54	122.39
	Kudankulam	2000	27	273	1403.35	52.95	1350.40		4.03	565.37		21.60	586.97

Form D 3.1														
Power Purchase Expenses for FY 2019-20														
		Name of Distribution Business/Licence												
		KERALA STATE ELECTRICITY BOARD LTD.												
S. No.	Source of Power (Station wise)	Installed Capacity	Utility share (%)	Utility share (MW)	Total Energy Sent Out (ESO) from the station (MU)	External Losses outside the State (%)	Energy Received at State boundary (MU)	Capacity Charges paid/payable by Utility	Variable Cost per unit including Fuel Price Adjustment	Total Variable Charges (Rs Crore)	Incentive (+) /Damage(-) (Rs Crore)	Any Other Charges (Please specify the type)	Total Cost of Energy Received (Rs Crore)	Avg cost of energy received (Rs/kWh)
1	2	3	4	5	6	7	8	12	13	14	15	16	17	18
	Central Generating													
1	RSTPS I & II	2100	12	245	1791.47	66.85	1724.62	125.65	2.64	472.45	0.00	-9.03	589.07	
2	RSTPS III	500	12	61	444.05	16.54	427.51	32.95	2.60	115.54	1.29	-2.19	147.60	
	Talcher Stage-II	2000	21	427	2829.95	103.95	2726.00	204.97	2.03	574.66		6.49	786.11	
	Simhadri TPS Stg II	1000	9	86	564.87	20.96	543.91	94.21	3.29	185.91		-0.33	279.79	
	NLC Stage-I	630	10	63	457.87	17.02	440.85	30.10	2.71	124.15	0.02	2.91	157.18	
	NLC Stage-II	840	11	90	620.91	22.94	597.97	44.40	2.71	168.47	0.09	4.41	217.37	
	NLC 1 Expansion	420	16	68	520.95	19.31	501.64	44.92	2.49	129.50	0	35.70	210.12	
	NLC II Expansion	500	16	81	242.70	8.96	233.74	56.36	2.53	61.51	0	1.33	119.19	
	MAPS	440	5	23	75.94	2.82	73.12		0.43	3.27	0.00	0.41	3.68	
	KAIGA	880	17	73	545.38	20.24	525.14		2.20	119.85		2.54	122.39	
	Kudankulam	2000	27	273	1403.35	52.95	1350.40		4.03	565.37		21.60	586.97	
	Vallur	1500	3	50	255.94	9.53	246.41	63.81	3.82	97.86		0.10	161.76	
	NTPL	1000	7	73	415.08	15.18	399.90	74.50	2.99	124.16		0.15	198.81	
	Kudgi	2400	5	112	284.12	10.44	273.68	146.25	3.61	102.67		-1.30	247.61	

Form D 3.1													
Power Purchase Expenses for FY 2019-20													
Name of Distribution Business/Lice		KERALA STATE ELECTRICITY BOARD LTD.											
Bhavini				0.00	0.00								0.00
NNTPS	500	3	16	17.71	0.59	17.12	3.94017	2.30	4.0651919	0	0.24	8.24	
Eastern region				0.00	0.00						0.011	0.01	
Aravally Corporation Ltd				0.00	0.00						0.0030261	0.00	
Total	16710		1741	10470	388.29	10082.00	922.06	2.72	2849.42	1.40	63.04	3835.91	
IPPs inside the State							100.22					100.22	
RGCCPP	359.58												
Wind IPPS													
Wind- Ramakkalmedu	14.25			23.10		23.10							
Wind-Koundikkal				26.70		26.70							
Wind- Agali	18.60			10.75		10.75		3.14	19.003			19.003	
Wind Ahalya	8.40			19.23		19.23		5.23	10.05			10.05	
INOX	16.00			37.21		37.21		4.09	15.22			15.22	
Kosamattom	1.00			1.61		1.61		3.07	0.4954			0.4954	
Wind Sub total	58.25			118.60		118.60			44.771478			44.77	
Small hydel IPPS													
Ullunkal(EDCL)	7.00			18.10		18.10		2.44	4.42			4.42	
Iruttukanam Stage-I & II(Vi	4.50			18.25		18.25		2.76	5.03			5.03	
Karikkayam HEP(AHPL)	10.50			36.37		36.37		4.16	15.13			15.13	
Meenvallom(PSHCL)	3.00			6.80		6.80		4.84	3.29			3.29	
Kannur or Idukki District	0.11			0.00		0.00			0.03			0.03	
Manjeri or Grama Panchayat	0.11			0.00		0.00			0.00			0.00	
Minar Renewable energy project Ltd	8.00			0.00		0.00			0.18			0.18	
SHEP subtotal				79.51	0.00	79.51	0.00		28.07	0.00	0.00	28.07	
Solar IPPS													
Solar IREDA	50.00			73.16		73.16		3.83	28.04			28.04	

Form D 3.1												
Power Purchase Expenses for FY 2019-20												
Name of Distribution Business/Lice		KERALA STATE ELECTRICITY BOARD LTD.										
Solar IPP ANERT	2			2.59		2.59			0.00		0.00	0.00
Grid connected average pooled power purchase				8.74		8.74				1.4718018		1.47180176
Solar subtotal				84.49		84.49				29.51		29.509836
Captive consumers net injection to grid during				22.46		22.46				0		0
PCBL(Deviation adjustment)				3.18		3.18				0		0
Total IPPs and CPPs inside the State				308.23		308.23	100.22			102.36		202.57
Long Term Contracts												
Maithon Power Ltd-I	1050		150	1047.56	39.47	1008.09	169.57	2.68	280.57		-13.47	436.66
Maithon Power Ltd-II	1050		150	1047.54	39.45	1008.09	167.99	2.68	280.57		-11.75	436.81
DVC Mejia			100	593.58	18.63	574.94	90.34	2.88	171.05		0.23	261.62
DVC RTPS			50	266.41	8.21	258.20	51.13	2.88	76.67		0.04	127.84
Jindal Power Ltd-Bid I			200	1428.54	60.16	1368.37	370.87	1.32	187.87		-21.42	537.31
Jhabua Power Ltd-PSA I			115	793.97	26.65	767.32	184.7179	2.15	170.72	0.10	-6.42	349.11
Jindal Power Ltd-Bid II			150	1071.64	45.14	1026.50	354.99	1.31	140.65		-24.92	470.71
Jhabua Power Ltd-Bid II			100	690.43	23.17	667.25	211.3112	2.14	147.70813		-10.02753	348.99
JITPL			100	751.11	25.61	725.50	256.7117	1.14	85.813991	0.0133971	-15.35553	327.18
BALCO			100	764.03	31.20	732.84	232.7105	1.15	88.180815	2.675241	-13.02712	310.54
Subtotal			1215	8454.81	317.70	8137.11	2090.34		1629.79	2.79	-116.13	3606.79
IEX				953.07	24.39	928.68			313.63			313.63
PXIL				63.13	1.57	61.57			24.71			24.71
Deviation Settlement Mechanism				513.50	0.00	513.50			122.13			122.13
Power availed through swap				365.48	12.81	352.67			6.00			6.00
Transmission charges						0.00			567.34			567.34
Total Power Purchase				21128.52	744.76	20383.77						8679.09

Form D 3.1													
Power Purchase Expenses for FY 2019-20													
Name of Distribution Business/Licence		KERALA STATE ELECTRICITY BOARD LTD.											
Sale outside the State													0.00
IEX				42.59		42.59				0.74			0.74
PXIL				13.35		13.35							0.00
Power return through swap arrangements				287.88		287.88							
Total Power Purchase Cost													8679.83
Purchase of LED lamps													0.18
Total Power purchase cost as per accounts				21128.52	744.76	20383.77							8680

Operations and Maintenance Expenses

A Name of Distribution Business/Licensee **KERALA STATE ELECTRICITY BOARD LTD.**
Licensed Area of Supply _____

1 Employee Expenses & A& G Expenses

S. No.	Particulars	Reference	Previous Year (n-1) - 2019-20		
			Approved in Tariff Order	Audited	Truing Up requirement
1	2	3	4	5	6 = 5 - 4
1	Number of Consumers ('000)			12552206	
	Norms (Rs. Lakh/'000 consumers)			5.03	
2	Distribution Transformers (no.)			79876	
	Norms (Rs. Lakh/Distribution Transformer)			0.67	
3	HT line (km)			64393.5	
	Norms (Rs. Lakh/km of HT line)			0.83	
4	Sales (kWh)			22369.59	
	Norms (Rs./unit of sales)			0.2	
5	Employee Expense & A& G Expenses (as per norms)			2148.403023	
6	Employee Expense including pay revision provision	3.4(a)		2540.44	

2 Administrative and General Expenses

S. No.	Particulars	Reference	Previous Year (n-1) - 2019-20		
			Approved in Tariff Order	Audited/ Normative	Truing Up requirement
1	2	3	4	5	6 = 5 - 4
1	Number of Consumers ('000)				
	Norms (Rs. Lakh/'000 consumers)				
2	Distribution Transformers (no.)				
	Norms (Rs. Lakh/Distribution Transformer)				
3	HT line (km)				
	Norms (Rs. Lakh/km of HT line)				
4	Sales (kWh)				
	Norms (Rs./unit of sales)				
4	A&G Expense (as per norms)				
5	A&G Expense (actuals)	3.4(b)		442.01	

3 Repair and Maintenance Expense

S. No.	Particulars	Reference	Previous Year (n-1) - 2019-20		
			Approved in Tariff Order	Audited/ Normative	Truing Up requirement
1	2	3	4	5	6 = 5 - 4
1	Opening GFA (Rs. Crore)			9271.04	9271.04
	Norms (% of opening GFA)			3	3.00
2	R&M Expense (as per norms)			294.04	294.04
3	R&M Expense (actuals)	3.4(c)		241.98	241.98

Including exceptional items

1 O&M Expenses

S. No.	Particulars	Reference	Previous Year (n-1) - 2019-20		
			Approved in Tariff Order	Audited/ Normative	Truing Up requirement
1	2	3	4	5	6 = 5 - 4
1	Employee Expenses (as per norms)			2540.44	
2	R&M Expenses (as per norms)			241.98	
3	A&G Expenses (as per norms)			442.02	
4	O&M Expense (as per norms) (1+2+3)		2458.95	3224.44	
2	O&M Expense (actuals)	3.4(a),3.4(b), 3.4(c)		3224.44	

Form D 3.4(a)

Employee Expenses

Name of Licensee

KERALA STATE ELECTRICITY BOARD LTD.

S. No.	Particulars	Reference	Previous Year (n-1) 2019-20
			Audited
1	2	3	4
1	Basic Salary		2062.16
2	Dearness Allowance (DA)		572.27
3	House Rent Allowance		37.70
4	Conveyance Allowance		0.00
5	Leave Travel Allowance		0.21
6	Earned Leave Encashment		129.77
7	Other Allowances		26.33
8	Medical Reimbursement		10.45
9	Overtime Payment		0.05
10	Bonus/Ex-Gratia Payments		8.29
11	Interim Relief / Wage Revision		0.00
12	Staff welfare expenses		4.22
13	VRS Expenses/Retrenchment Compensation		0.00

14	Commission to Directors		0.00
15	Training Expenses		0.00
16	Payment under Workmen's Compensation Act		0.16
17	Net Employee Costs		2851.60
18	Terminal Benefits		0.07
18.1	Provident Fund Contribution		0.00
18.2	Provision for PF Fund		0.00
18.3	Pension Payments		0.00
18.4	Gratuity Payment		0.00
18.6	Contribution of KSEB Ltd towards National Pension Scheme		18.70
19	Others		0.37
20	Gross Employee Expenses		2870.74
21	Less: Expenses Capitalised		330.30
22	Net Employee Expenses		2540.44

Form D 3.4(b)

Administrative & General Expenses

Name of Licensee

KERALA STATE ELECTRICITY BOA

S. No.	Particulars	Reference	Previous Year (n-1) 2019-20
			Audited
1	2	3	4
1	Rent Rates & Taxes		10.09
2	Insurance		-0.45
3	Telephone & Postage, etc.		8.88
4	Legal charges		0.91
5	Audit Fees		0.23
6	Consultancy charges		0.04
7	Other Professional charges		0.72
8	Conveyance		54.11
9	Vehicle Running Expenses Truck / Delivery Van		0.64
10	Vehicle Hiring Expenses Truck / Delivery Van		2.86
11	Electricity charges		4.96
12	Water charges		0.84
13	Entertainment		0.88
14	Fees & subscription		0.04
15	Printing & Stationery		5.93
16	Advertisements, exhibition publicity		0.29
17	Contribution/Donations		1.99
18	Training expenses		1.79
19	Miscellaneous Expenses		4.24
20	DSM activities		0.00
21	SRPC expenses		0.18
22	Sports and related activities		0.10
23	Freight		0.48
24	Purchase Related Advertisement Expenses		0.74
25	Bank Charges		0.00
26	Office Expenses		103.21
27	License Fee and other related fee		1.45

28	Cost of services procured	D3.4(b)	0.00
29	Outsourcing of metering and billing system		0.00
30	V-sat, Internet and related charges		0.45
31	Security arrangements		0.00
32	Books & periodicals		0.04
33	Computer Stationery		0.00
34	Others		2.05
	Others- Other Purchase related Expenses		1.66
	Others - Power Factor Incentive given to consumers		102.65
35	Gross A&G Expenses		312.01
36	Ele. Duty u/s 3(I), KED Act		130.43
37	Less: Expenses Capitalised		0.42
38	Net A&G Expenses		442.02

Form D 3.4(c)

Repair & Maintenance Expenses

Name of Licensee

KERALA STATE ELECTRICITY BOARD LTD.

S. No.	Particulars	Reference	Previous Year (n-1) 2019-20(Audited)	
			Normal	Flood
1	2	3	4	
1	Plant & Machinery		3.58	0.51
2	Buildings		3.58	0.00
3	Civil Works		0.52	0.00
4	Hydraulic Works		0.10	0.00
5	Lines & Cable Networks		207.00	24.21
6	Vehicles		0.67	
7	Furniture & Fixtures		0.25	
8	Office Equipment		1.54	
9	Gross R&M Expenses		217.26	24.72
10	Less: Expenses Capitalised			
11	Net R&M Expenses		217.26	24.72

Form D 3.5

Fixed assets & depreciation

Name of Distribution Business/Licensee

KERALA STATE ELECTRICITY BOARD LTD.

Licensed Area of Supply

Year (n-1)*

(Figures in Rs Cr)

S. No.	Asset Group (as per notification in respect of depreciation)	Rate of depreciation (%)	Gross fixed assets (2019-20)				Provision for depreciation				Net fixed assets at the beginning of the year	Net Fixed Assets at the end of the year
			Gross fixed assets (2019-20)	Additions during the year	Decom. Liability for year	At the end of the year	Cumulative upto the beginning of the year	Additions during the year	Adjustment during the year	Cumulative at the end of the year		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Land & land rights	10.1	19.91	0.35	0.00	20.26	0.00	0.00		0.00	19.91	20.26
2	Other Civil works	10.4	4.63	2.22	0.00	6.85	2.66	0.17		2.83	1.96	4.02
3	HV Distribution system			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
a)	Distribution lines	1,06,01,602	67.06	18.31	0.01	85.38	20.67	0.00		20.67	46.38	64.71
b)	Sub-station equipments	10543	71.68	2.10	0.00	73.78	32.23	0.00		32.23	39.45	41.55
i)	Transformers	10541	629.49	28.58	0.03	658.10	391.11	0.00		391.11	238.38	266.99
ii)	Switchgears, Control gear & Protection	10561	0.10	0.01	0.00	0.11	0.09	0.00		0.09	0.00	0.01
iii)	Batteries	10563	0.41	0.07	0.00	0.48	0.14	0.00		0.14	0.27	0.34
iv)	Others			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
4	LT Distribution system			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
a)	Distribution lines	10.6	6553.49	1402.46	1.40	7957.35	3148.93	419.20		3568.13	3404.55	4389.22
b)	Sub-station equipments			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
i)	Transformers	10542	127.27	15.77	0.02	143.05	34.49	0.00		34.49	92.77	108.56
ii)	Switchgears, Control gear & Protection			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
iii)	Batteries			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
iv)	Others	10.5	71.44	53.77	0.06	125.26	22.21	42.89		65.10	49.23	60.16
5	Communication equipment	1,05,71,572	0.41	0.00	0.00	0.41	0.27	0.00		0.27	0.14	0.13
6	Meters	10631	1494.15	64.33	0.06	1558.54	882.13	0.00		882.13	612.02	676.42
7	Vehicles	10.7	8.30	0.09	0.00	8.39	6.86	0.34		7.21	1.44	1.18
8	Furniture & fixtures	10.8	34.65	2.07	0.00	36.72	16.26	2.07		18.33	18.39	18.39
9	Office Equipments	10.9	31.23	1.58	0.00	32.80	13.62	11.27		24.89	17.61	7.91
10	Assets of Partnership projects etc.			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
11	Capital spares of HV & LT transmissison			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
12	Assets taken over & pending final valuation			0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00

Form D 3.5

Fixed assets & depreciation

13	IT Equipments	10905	97.40	36.86	0.00	134.27	70.40	0.00		70.40	27.00	63.87
	Buildings	10.2	59.37	13.63	0.00	72.99	23.25	1.85		25.09	36.12	47.90
15	Any other items (Hydrualic Works)	10.3	0.08	0.00	0.00	0.08	15.40	0.00		15.41	-15.33	-15.33
16	Gross Asset (Total (1) to (15))		9271.04	1642.19	1.59	10914.82	4680.74	477.79	0.00	5158.52	4590.30	5756.29
17	Less: Consumer contribution	55.1	1244.92	342.24	105.09	1482.07					1244.92	1482.07
18	Less: Government grants	55.2&55.3	560.82	152.08	38.61	674.29					560.82	674.29
19	Less: Deposit Works		0			0.00						
20	Less: Capital Subsidies	55.4	211.21	39.14	16.66	233.69					211.21	233.69
21	Net Asset considered for depriciation (16-17-18-19-20)		7254.08			8524.76					2573.34	3366.24

9251.13

Form D 3.6 (a)**Calculation of Weighted Average Rate of Interest on Actual Loans**Name of Distribution Licensee
Licensed Area of Supply

KERALA STATE ELECTRICITY BOARD

(Rs. Cr)

S.No	Particulars (specify items)	2019-20		Remarks	
		Approved in Tariff Order	Audited		
1	2	3	4	12	
1	Loan 1		SEPARATE SHEET ATTACHED		
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening				
iv.	Add: Drawal(s) during the Year				
v.	Less: Repayment (s) of Loans during the year				
vi.	Net loan - Closing				
vii.	Average Net Loan				
viii.	Rate of Interest on Loan on annual basis				
ix.	Interest on loan				
x.	<i>Loan repayment effective from (date to be indicated)</i>				
2	Loan 2				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening				
iv.	Add: Drawal(s) during the Year				
v.	Less: Repayment (s) of Loans during the year				
vi.	Net loan - Closing				
vii.	Average Net Loan				
viii.	Rate of Interest on Loan on annual basis				
ix.	Interest on loan				
x.	<i>Loan repayment effective from (date to be indicated)</i>				
3	Loan 3				
..	...				
..	...				
4	Total Loan				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening		3366.39		

iv.	Add: Drawal(s) during the Year		1938.79	
v.	Less: Repayment (s) of Loans during the year		1061.80	
vi	Net loan - Closing		4243.38	
vii	Average Net Loan		3804.88	
viii	Interest on Loan		371.45	
ix	Weighted average Rate of Interest on Loans		9.76%	

the calculations in Original currency is also to be furnished separately in the same form

Note: nth year = FY 2014-15, n+1th year = FY 2019-20, and so on, for the first filing under the KSERC

Term Loan

SL NO	NAME OF THE FINANCIAL INSTITUTION	Gross Loan - Opening	Cumulative repayments of Loans upto previous year (IND Adj) 2017-18	Net loan-Opening - 01/04/2017	Add: Drawal(s) during the Year	Less: Repayment (s) of Loans during the year	Net loan - Closing - 31/03/2018	CFL	Ind ADJ	Net loan - Closing - 31/03/2018	Average Net Loan	Rate of Interest on Loan on annual basis	Interest on loan	Loan repayment effective from (date to be indicated)
A	<u>SECURED LOANS TERM LOANS</u>													
1	Loan from REC for the DDG Scheme	0.13	0.01	0.14	0.00	0.00	0.14	0.00	0.00	0.14		11%	0.02	
2	Loan from R E C - RGGVY	12.63	1.89	14.52	0.00	1.96	12.55	1.96	0.00	10.59		10-11%	1.49	
3	Loan from REC- Distriburion - Meter Scheme	24.94	17.38	42.32	0.00	13.69	28.63	14.94	0.00	13.69		10%	3.44	
4	Loan from PFC R-APDRP	192.41	0.00	192.41	33.12	0.00	225.52	0.00	0.00	225.52		9%	40.44	
5	Loan from PFC R-APDRP Part B	234.88	12.12	247.01	0.00	12.12	234.88	46.50	0.00	188.39		9%	8.20	
6	Loan from SBI				473.19	15.78	457.41	47.34	0.00	410.07		0%	12.34	
7	Loan from REC R-APDRP PART-B	452.66	110.20	562.87	0.00	59.73	503.13	65.16	0.00	437.97		9.75-10.5%	52.41	
8	Special Loan Assistance from PFC	604.48	44.78	649.26	14.76	45.79	618.22	45.79	0.00	572.43		9%	58.46	
9	Special Loan Assistance from REC	759.24	63.27	822.51	143.22	65.95	899.78	74.46	0.00	825.31		9%	83.02	
10	Loan from REC-Distriburion - 23 Circle Scheme	538.28	102.29	640.57	522.94	99.63	1063.87	124.17	0.00	939.70		9.75-10.5%	95.80	
	SUB-TOTAL	2819.66	351.93	3171.58	1187.22	314.67	4044.14	420.33	0.00	3623.81			355.60	
B	<u>UNSECURED LOANS TERM LOANS</u>													
	From Banks													
1	Loans - Short Term Loan from State Bank of India (SBI)				149.43	149.43	0.00	0.00	0.00	0.00		0%	0.00	
2	Loans - Short term loan from Vijaya Bank	194.81		194.81	203.66	398.47	0.00	0.00	0.00	0.00		9%	11.64	
3	Loans - Short term loan from Bank of Baroda				398.47	199.24	199.24	0.00	0.00	199.24		0%	4.21	
	SUB-TOTAL	194.81	0.00	194.81	751.57	747.14	199.24		0.00	199.24			15.85	
	TOTAL	3014.46	351.93	3366.39	1938.79	1061.80	4243.38		0.00	3823.05			371.45	

TOTAL UN SECURED LOAN SHOWN IN BS

Form D 3.6 (b)

Calculation of Interest on Normative Loan
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Name of Distribution Licensee
Licensed Area of Supply

KERALA STATE ELECTRICITY BOARD LTI

S.No .	Particulars (specify items)	Previous Year (n-1) - 2019-20		
		Approved in Tariff Order	Normative	Truing Up requirement
1	2	3	4	5 = 4 - 3
1	Gross Normative loan - Opening			
2	Cumulative repayment of Normative Loan upto previous year			
3	Net Normative loan - Opening		3366.39	
4	Increase/Decrease due to ACE/de-capitalization during the Year		1938.79	
5	Repayments of Normative Loan during the year		1061.80	
6	Net Normative loan - Closing		4243.38	
7	Average Normative Loan		3804.88	
8	Weighted average Rate of Interest of actual Loans		9.76%	
9	Interest on Normative loan		371.45	

Form D 3.6 (c)

Interest on Bonds to meet Terminal Liabilities

Name of Distribution Licensee **KERALA STATE ELECTRICITY BOARD LTD.**

Licensed Area of Supply

S.No .	Particulars (specify items)	Previous Year (n-1)		
		Approved in Tariff Order	Normative	Truing Up requirement
1	2	3	4	5 = 4 - 3
A	Bond Series 1			
1	Value of Bond	7329.6	7,329.60	7,329.60
2	Rate of Interest on Bond		10%	10%
3	Interest on Bond	732.96	732.96	732.96
B	Bond Series 2			
4	Value of Bond		3,231.67	3,231.67
5	Rate of Interest on Bond		9%	9%
6	Interest on Bond	612.43	627.56	627.56
C	...			
	...			

Form D 3.7					
Interest on Working Capital					
Name of Distribution Business/Licensee		KERALA STATE ELECTRICITY BOARD LTD.			
Licensed Area of Supply					
		Rs Crore			
Sl.No.	Particulars	Previous Year (n-1) - 2019-20			
		Approved in Tariff Order	Audited	Normative	Truing Up requirement
		3	4	5	6
1	O&M expenses for one month (as per norms)	207.30	268.70	234.51	234.51
2	Maintenance Spares (as per norms)	6.15	59.62	59.62	59.62
3	Receivables (as per norms)	2190.58	2567.48	2339.61	2339.61
	Less:				0.00
4	Security deposits except security deposits held in the form of Bank Guarantee from Users	3086.96	3205.21	3205.21	3205.21
6	Total Working Capital	-682.93	-309.41	-571.48	-571.48
7	Interest Rate (as per norms)				
8	Interest on Working Capital (actual)		162.04		

Form D 3.8

Return on Equity/Return on Net Fixed Assets
--

Name of Distribution Business/Licensee

KERALA STATE ELECTRICITY BOARD LTD.

Licensed Area of Supply

S.No.	Particulars	Ref.	Previous Year (n-1)			
			2019-20			
			Approved in Tariff Order	Audited	Normative	Truing Up requirement
1	2	3	4	5	6	7
1	Equity at the beginning of the year			1810.74	1810.74	1810.74
2	Capitalisation					
3	Equity portion of capitalisation					
4	Equity at the end of the year					
	Return Computation			1810.74	1810.74	1810.74
5	Return on Equity at the beginning of the year	14%*(1)		253.50	253.50	253.50
6	Return on Equity portion of capitalisation	14%*(3)/2				
7	Total Return on Equity	(5)+(6)		253.50	253.50	253.50

D3.8

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Form D 4.1

Project-wise / Scheme-wise Capital Expenditure

KERALA STATE ELECTRICITY BOARD LTD.

Name of Distribution Business/Licensee
Licensed Area of Supply

Year (n-1)*

2019-20

(Rs Crore)

S. No.	Description of the project/Scheme	Capital Expenditure			
		Opening Balance as on	Exp. During the year	Transfer to fixed Assets	Closing Balance of WIP as on
1	2	3	4	6	7
1	Deen Dayal Upadhyay Gram Jyothi Yojana (DDU)	67.23	149.67	213.11	3.79
2	Integrated Power Development Scheme (IPDS)	56.70	358.08	365.88	48.90
3	Kerala Power Improvement Scheme (KPIS)	0.00	0.00		0.00
4	Rural Electrification Scheme	0.04	0.33	0.32	0.04
5	Distribution Line Extension	1.33	130.59	130.93	0.99
6	Distribution Service Connection	3.95	148.70	147.79	4.87
7	Distribution System Improvement	9.22	408.15	399.68	17.69
8	Electrification of Harijan Colonies	0.00	0.29	0.29	0.00
9	Electrification of Tribal Colonies	0.00	0.40	0.40	0.00
10	Punja Package	0.08	0.39	0.35	0.12
11	System Improvement in other areas	0.26	4.89	5.08	0.07
12	Distbn. Capacitor Installation Scheme	0.00	0.99	0.00	0.99
13	Street Lights	2.13	41.96	41.49	2.59
	Expenditure due to Natural Calamity	0.06	8.86	8.88	0.05
14	RGGVY-Village electrification Infrastructure	3.13	-0.25	2.88	0.00

Form D 4.1

Project-wise / Scheme-wise Capital Expenditure

15	RGGVY-For effecting BPL Service Connection	0.24	0.04	0.27	0.00
16	Part B Projects of R-APDRP	41.14	89.14	114.41	15.87
17	MLA Asset Development Fund Scheme (MLA ADF)	0.00	0.13	0.13	0.00
18	R- APDRP Scheme	397.68	66.31	56.07	407.93
19	APDRP-Scheme	0.00	0.00		0.00
20	CWIP - General	523.58	133.81	153.48	503.91
21	Innovation fund	0.11	0.54	0.63	0.02
22	Projects not Identified	1.37	1.62	1.70	1.29
	TOTAL	1108.24	1544.65	1643.78	1009.12

Form D 4.2

Statement of Budgeted report on additions to Fixed Assets during the year
--

Name of Distribution BusLA STATE ELECTRICITY BOARD
Licensed Area of Supply

Year (n-1)*

2019-20

(Rs Cr)

S.No.	Asset Description	Asset Code	Total Addition to Assets
1	2	3	4
01.	Land & Land Rights	10.1	0.35
02.	Buildings	10.2	13.63
03.	Hydraulic Works	10.3	0.00
04.	Other Civil Works	10.4	2.22
05.	Plant & Machinery	10.5	100.29
06.	Lines, Cable, Network etc.	10.6	1485.10
07.	Vehicles	10.7	0.09
08.	Furniture & Fixtures	10.8	2.07
09.	Office Equipments	10.9	38.44
	TOTAL		1642.19

S.No.	Particulars (specify items)	Previous Year (n-1)		
		2019-20		
		Approved in Tariff Order	Audited	Truing Up requirement
1	2	3	4	5 = 4 - 3
1	Material Cost Variance		(5.87)	(5.87)
2	Research and Development Expenses		-	-
3	Cost Of Trading/Manufacturing Activity		(0.12)	(0.12)
4	Bad and Doubtful Debts Written off / Provided/demand withdrawal of consumers		21.81	21.81
5	Miscellaneous Losses and Write Offs		4.76	4.76
6	Sundry Expenses		-	-
7	Loss/(compensation) on account of flood cyclone etc		0.01	0.01
	Total		20.58	20.58
	Less			
	Chargable to Capital Expenses			
	Net chargable to revenue		20.58	20.58

Form D 6.1

Improvement in performance

Name of Distribution Business/Licensee

KERALA STATE P

Licensed Area of Supply _____

S.No.	Particulars	Ref	2019-20	Remarks
1	2	3	4	11
1	Distribution Losses, (%)		8.7	
2	Collection Efficiency, (%)		95.18	
3	Distribution losses for (%)			
(a)	Urban areas with population exceeding 1 lakh			
(b)	Industrial areas of load exceeding 5MVA#			
(c)	Rural areas			
4 (a)	Percentage of consumers billed		100	
4 (b)	Revenue realisation , (Rs Cr)			
5	Stopped Meters %			
6 (a)	Defective meters/ metering arrangement%			
6 (b)	Replacement of Defective meters, %			
7	Supply availability %		102.54	
(1)	Base Load supply availability			
(a)	Actual contracted Base Load supply in MW			
(b)	Base Load in MW			
(c)	Base Load supply availability (%) (c=a/b)			
(2)	Peak Load supply availability			
(d)	Actual Contracted Peak Load Supply in MW			
(e)	Peak load in MW			
(f)	Peak Load Supply Availability (%) (c=a/b)			
	Supply availability % (0.75*c + 0.25*f)			
8	Transformer failure rate			
a.	Distribution transformers (%)			
b.	Power transformers (%)			

Form D 7.1

Category-wise Sales

Name of Distribution Business/Licensee **KERALA STATE ELECTRICITY BOARD LTD.**

Licensed Area of Supply _____

Year (n-1)*

(MU)

S. No.	Consumer Category & Consumption Slab	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	LT-1	1144.00	1125.45	1047.43	907.80	878.97	884.50	894.17	899.89	967.21	980.48	1044.38	1119.88	11894.15
	LT-2	0.35	0.32	0.33	0.38	0.29	0.33	0.32	0.33	0.33	0.35	0.33	0.32	3.97
	LT-3A	0.11	0.04	0.03	0.04	0.09	0.05	0.05	0.13	0.30	0.10	0.05	0.06	1.06
	LT-3B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LT-4A	93.53	98.48	85.24	94.59	89.82	90.33	94.52	95.63	93.84	96.17	91.90	50.77	1074.81
	LT-4B	0.98	1.00	0.89	0.87	0.76	0.79	0.83	0.92	0.91	0.94	0.93	0.55	10.35
	LT-5A	36.57	32.60	21.20	14.86	9.58	10.66	12.07	14.46	24.67	41.22	43.90	27.98	289.77
	LT-5B	4.81	4.96	4.75	5.08	4.73	4.40	4.53	4.98	5.36	5.68	5.31	4.11	58.71
	LT-6A	18.86	19.27	18.67	17.91	16.63	17.03	18.10	19.09	19.45	20.25	19.43	12.56	217.24
	LT-6B	10.77	11.23	10.60	10.86	9.66	9.71	10.46	11.43	10.50	11.58	10.98	8.04	125.80
	LT-6C	23.09	23.82	21.02	20.34	18.47	18.30	19.50	21.13	21.27	21.72	21.74	18.27	248.66
	LT-6D	1.91	1.85	2.11	1.94	1.75	1.84	1.87	1.95	1.98	2.03	1.98	1.51	22.71
	LT-6E	0.28	0.27	0.25	0.25	0.23	0.25	0.24	0.26	0.26	0.27	0.25	0.16	2.97
	LT-6F	82.94	84.04	79.38	79.84	75.96	75.31	76.80	77.38	78.58	79.81	76.18	67.65	933.86
	LT-6G	7.36	7.36	6.47	6.37	5.73	6.00	6.14	6.54	6.47	6.83	6.64	5.10	76.99
	LT-7A	149.24	150.36	136.26	129.11	123.90	127.75	131.44	137.28	144.23	148.00	143.47	82.82	1603.86
	LT-7B	16.47	16.82	15.58	14.61	13.67	14.08	13.45	13.84	13.83	14.04	13.17	8.82	168.39
	LT-7C	2.71	2.07	1.83	1.74	1.66	2.10	1.95	1.90	2.00	2.38	2.11	0.43	22.88
	LT-8A	22.71	22.71	23.41	21.91	22.60	22.53	22.38	22.47	22.17	22.10	22.16	18.26	265.42
	LT-8B	8.57	8.54	8.49	7.68	7.71	8.10	8.11	8.28	9.01	9.56	8.98	7.42	100.44
	LT-9	0.20	0.15	0.19	0.14	0.19	0.14	0.19	0.13	0.19	0.15	0.20	0.07	1.95
	LT 10	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.00	0.01	0.04	0.01	0.11
	Total	1625.44	1611.35	1484.14	1336.33	1282.38	1294.18	1317.15	1338.01	1422.57	1463.67	1514.12	1434.77	17124.11
	EHT GENERAL (A)	1.23	1.30	1.21	1.20	1.18	1.17	1.22	1.23	1.24	1.27	1.24	1.30	14.79

Form D 7.1

Category-wise Sales

EHT GENERAL (B)	4.29	4.80	4.08	4.12	4.20	4.18	4.26	4.20	4.17	4.24	3.97	3.65	50.18
EHT I (66 kV) INDUSTRIAL	16.97	20.80	17.97	22.21	13.20	13.58	11.87	14.51	17.39	17.19	19.08	8.59	193.37
EHT II (110 kV) INDUSTRIAL	37.65	44.25	45.73	44.71	39.72	34.51	35.38	38.92	48.97	48.42	46.22	32.04	496.52
EHT II (110 kV) RT	23.75	24.95	24.48	24.84	23.31	25.63	26.64	27.23	29.09	28.47	26.75	20.07	305.21
EHT III (220 kV) INDUSTRIAL	11.14	10.78	12.84	7.79	4.85	5.07	5.14	8.80	11.53	8.47	13.91	4.19	104.51
HT I (A) INDUSTRIAL	179.53	189.75	178.11	188.19	170.88	161.89	174.72	179.84	179.77	187.14	180.15	153.71	2123.70
HT I (B) INDUSTRIAL	1.24	1.32	1.15	1.18	1.10	1.07	1.12	1.18	1.13	1.23	1.15	1.04	13.90
HT II (A) GENERAL	17.43	18.45	16.31	17.10	16.52	15.71	16.95	17.88	17.09	18.25	17.85	16.55	206.09
HT II (B) GENERAL	55.70	58.36	52.01	51.67	49.12	48.92	51.55	52.48	51.89	54.36	52.16	51.57	629.78
HT III (A) AGRICULTURE	0.86	0.65	0.52	0.49	0.49	0.49	0.50	0.57	0.76	0.93	0.88	0.80	7.93
HT III (B) AGRICULTURE	0.15	0.16	0.18	0.20	0.20	0.21	0.19	0.17	0.15	0.18	0.17	0.19	2.13
HT IV A (COMMERCIAL)	68.64	70.83	62.21	26.80	25.43	25.60	25.75	27.16	27.31	27.77	26.35	21.29	435.15
HT IV B (COMMERCIAL)	0.00	0.00	0.00	33.88	32.13	33.12	33.15	35.32	37.44	38.02	35.07	24.14	302.28
HT V (DOMESTIC)	1.44	1.47	1.41	1.52	1.43	1.40	1.47	1.48	1.53	1.59	1.51	1.50	17.74
HT VII (Temporary)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.08
KMRL(Kochi Metro Rail Ltd)	1.23	1.24	1.22	1.25	1.41	1.71	1.65	1.70	1.79	1.76	1.63	1.14	17.75
Licensee: OtherState 11KV	0.10	0.08	0.05	0.05	0.04	0.05	0.05	0.05	0.06	0.08	0.09	0.11	0.82
Licensee: CPT	3.31	3.38	3.09	3.12	3.08	2.92	3.06	3.09	3.14	3.26	2.96	3.00	37.43
Licensee: CSEZ	4.73	5.00	4.93	4.88	4.90	4.65	4.99	4.86	4.86	4.79	4.17	3.81	56.58
Licensee: KDHPCL	4.40	5.41	5.46	5.14	4.68	4.31	5.39	5.35	5.12	5.36	4.91	4.27	59.79
Licensee: KPUPL	8.10	8.63	7.81	8.17	7.64	7.44	7.96	7.99	7.70	7.72	7.74	7.13	94.03
Licensee: MES	6.13	6.44	6.12	6.00	5.66	5.56	5.79	6.12	5.93	6.39	5.98	6.16	72.27
Licensee: RPL	2.01	2.52	2.55	2.28	2.23	1.85	2.16	2.11	2.17	2.14	2.40	1.79	26.21
Licensee: Technopark	7.94	8.59	7.63	7.84	7.43	7.20	7.42	7.41	7.13	7.67	6.99	6.80	90.04
Licensee: ThrissurCorporati	15.28	16.30	13.22	12.97	11.98	12.21	13.10	13.25	13.44	13.71	13.14	13.22	161.83
Licensee:Infopark, Cherthal	0.81	0.86	0.81	0.85	0.79	1.02	1.17	1.18	1.18	1.24	1.20	1.10	12.21
Licensee:SMART CITY	0.34	0.40	0.37	0.38	0.37	0.29	0.40	0.41	0.40	0.41	0.40	0.35	4.53
Sub Total	474.39	506.75	471.48	478.82	433.99	421.75	443.05	464.49	482.35	492.06	478.18	389.50	5536.82
Total	2099.84	2118.10	1955.62	1815.15	1716.37	1715.93	1760.20	1802.51	1904.92	1955.73	1992.30	1824.27	22660.93

Form D 7.3

Collection Efficiency

Name of Distribution Business/Licensee _____

Licensed Area of Supply _____

2019-20

(Rs. Crore)

S. No.	Particulars	Previous Year (n-1)	Remarks
		(Actuals/Audited)	
1	2	3	8
	Total	95.18	

Form D 8

Deviation Analysis

Name of Distribution Business/Licensee
Licensed Area of Supply

KERALA STATE ELECTRICITY BOARD LTD.

Year (n-1)

2019-20

(Rs. Crore)

S. No.	Particulars	Approved	Actual	Deviation	Reason for Deviation	Controllable	Uncontrollable
1	2	3	4	5	6	7	8
1	Cost of own power generation/power purchase	10106.56	10330.90				
2	Transmission Charges						
3	NLDC/RLDC/SLDC Charges						
4	Operation & Maintenance Expenses						
4.1	Employee Expenses		2540.44				
4.2	Administration & General Expenses	2458.95	442.02				
4.3	Repair & Maintenance Expenses		241.98				
5	Interest and finance charges on long term loans	222.94	159.68				
6	Depreciation	93.47	477.79				
7	Interest on Working Capital		162.04				
8	Interest on consumer security deposits and deposits from Users of the distribution system	199.93	196.29				
9	Any other item GPF INTEREST						
	Others		20.58				

Form D 8

Deviation Analysis

Name of Distribution Business/Licensee
Licensed Area of Supply

KERALA STATE ELECTRICITY BOARD LTD.

	Amortisation of Intangible Assets		2.63				
	Other Interest and Finance Charges	998.6	786.16				
	Prior period expenditure		0.00				
10	Amoprtization of past gap	1000					
11	Additional contribution to Master Trust	167.1					
A	Total Expenditure	15247.55	15360.52				
B	Return on Equity	253.5					
C	Tax on ROE						
D	Revenue						
1	Revenue from sale of electricity		14279.84				
2	Other Income		487.58				

Note: Please give detailed explanation separately for the deviations on account of uncontrollable factors

Form D P&L**Profit & Loss Account**

Name of Distribution Business/Licensee **KERALA STATE ELECTRICITY BOARD LTD**
 Licensed Area of Supply _____

S.No.	Particulars	Ref	Previous Year	Previous Year	Remarks
			2019-20	2018-19	
1	2	3	4	5	6
	I.INCOME				
	a. Revenue from Sale of Power		14279.84	13418.17	
	b. Revenue Subsidies and Grants				
	c. Other Income		487.58	503.85	
	Total (a+b+c)		14767.42	13922.01	
	II. EXPENDITURE				
	a. Repairs and Maintenance.		217.26	222.82	
	b. Employee Cost		2870.74	2726.36	
	c. Administration and General Expenses		442.45	448.27	
	d. Depreciation		477.79	432.26	
	1). Amortisation of Intangible Assets		2.63	0.98	
	e. Interest and Finance charges		1515.94	1466.13	
	f. Subtotal (a+b+c+d+e)		5526.80	5296.82	
	g. Less Capitalised Expenses:				
	- Interest & Finance Charges		211.77	202.80	
	- Other Expenses		330.72	301.35	
	h. Other Debits		20.58	19.22	
	Change in Fair Valuation and other adjustments			5.37	
	I. Extra Ordinary Items		24.72	22.54	
	j. Purchase of power		10330.90	9524.67	
	k. Generation of Power				
	Total Expenditure (f-g+h+i+j+k)		15360.52	14341.94	
	III. Profit/(Loss) before Tax (I-II)		-593.10	-442.47	
	IV. Provision for Income Tax				
	V. Net Prior period credits (Charges)			190.18	
	V.(a). Other Comprehensive Income		-510.59	-924.40	
	VI. Surplus (Deficit)		-1103.68	-1557.04	
	VIII. Rate of Return (VI/ VII)				

Form D BS

Balance Sheet at the end of the year

Name of Distribution Business/Licensee

KERALA STATE ELECTRICITY BOARD

Licensed Area of Supply

S.No.	Particulars	Ref	Previous Year	Previous Year
			2019-20	2018-19
1	2	3	4	5
	Sources of Funds:			
	(A) Capital Funds:			
	Share Capital (Govt. equity)		1810.74	1810.74
	Reserves & Surplus		-13166.12	-11908.57
	Total (A)		-11355.38	-10097.83
	(B) Loan from State Government			
	Loan from others :			
	-Secured		3623.81	2819.66
	-Unsecured		199.24	194.81
	Total (B)		3823.05	3014.46

	(C) Contribution, grants & subsidies towards cost of capital assets		2390.06	2099.02
	Provident Fund		2006.04	1862.19
	Terminal Benefit Fund		5437.36	6221.27
	Borrowings for working capital			
	Other Non current Liabilities		2402.87	
	Long term Provision		6664.65	1342.42
	Grand total of sources of funds (A+B+C)		8965.77	4441.53
	Application of Funds:			
	A) Fixed assets			
	a) Gross fixed assets		10914.82	9271.04
	b) Less accumulated depreciation		5158.52	4680.74
	c) Net Fixed assets((a)-(b))		5756.29	4590.30
	d) Capital works in progress		1009.12	1108.24
	e) Assets not in use			
	f) Deferred costs			0.08
	g) Intangible assets		13.97	5.58
	h) Investments		4.00	5.65
	Other Non current assets-Other Financial Assets		-92.21	21.47
	Total (c) +(d)+(e)+(f)+(g)+(h)		6691.17	5731.33

	B)Subsidy receivable from Government		248.04	1501.05
	Contribution receivable from State Government towards pension liability		2606.40	2924.00
	C) Net Current Assets			
	(1) Current assets, loans and advances			
	a) Inventories*		679.06	559.37
	b) Receivables against Sale of Power		2567.48	1288.01
	c) Cash & bank balances		242.05	284.05
	d) Loans and advances			60.54
	e) Sundry receivables		6414.53	67.18
	Total (C) (1)		9903.12	2259.15
	(2) Current liabilities & provisions			
	a) Security Deposits from Consumers		3205.21	3359.85
	b) Borrowings for working capital		940.06	1125.17
	c) Payments due on Cap. liabilities			
	d) Other current liabilities		6337.69	3488.99
	Total (C) (2)		10482.96	7974.01
	Net Current Assets (C(1)) - (C(2))		-579.84	-5714.85
	Grand Total of Application of funds (A)+(B)+(C)		8965.77	4441.53

Form D CF

Cash Flow for the year

Name of Distribution Business/Licensee _____

Licensed Area of Supply _____

S.No.	Particulars	Ref	Previous Year	Previous Year	Remarks
			2019-20	2018-19	
1	2	3	4	5	6
I	Net Funds from Operations				
1a	Net Funds from Earnings :				
	a) Profit before tax and before revenue subsidies and grants		-1103.68	-1557.04	
	Less : Income Tax Payment during the year				
	: Other Comprehensive Income		-510.59	-924.40	
	Total of (a)		-593.09	-632.64	
	b. Add: Debits to revenue account not requiring cash Flow:				
	I) a) Depreciation		477.79	432.26	
	b) Depreciation on IND As Adj		0.00	0.00	
	ii) Amortisation of Deferred costs				
	iii) Amortisation of Intangible Assets		2.63	0.98	
	iv) Investment Allowance Reserve				
	v) Others, if any		5322.23	-383.98	
	Total of (b)		5802.65	49.26	
	c. Less : Credits to revenue Account not involving cash receipts				
	I) Deprecation				
	ii) Subsidies receivables				
	iii) Revenue gap				
	Total of (c)		0	0	
	Net Funds from Earnings (a)+(b)-(c)		5209.56	-583.38	
2	Contributions, Grants & Subsidies to cost of Capital Assets		291.03	459.21	
3	Security Deposit from consumers		-154.64	189.40	
4	Proceeds from disposal of fixed Assets				
5	Total Funds from Operations (1+2+3+4)		5345.96	65.23	
6	Net Increase/(Decrease) in working Capital				
	(a) Increase/(Decrease) in Current Assets				
	I) Inventories		119.69	169.82	
	ii) Receivables against sale of power		1279.47	-1011.25	
	iii) Loans and Advances		-60.54	60.54	
	iv) Sundry receivables		6347.35	96.20	
	Total of (a)		7685.97	-684.69	

	(b) Increase/(Decrease) in Current liabilities				
	I) Borrowings for working Capital		-185.11	650.19	
	ii) Other current liabilities		2848.69	1017.81	
	iii) Others (Increase in Reserve + payment due on cap.liab)		-664.46	-903.22	
	Total of (b)		1999.12	764.78	
	Net Increase/(Decrease) in working Capital (a)- (b)		5686.85	-1449.47	
7	Net Funds from operations before subsidies and Grants (5-6)		-340.89	1514.70	
8	Receipts from revenue subsidies and Grants		1570.61	-943.74	
	Total Net Funds from operations including subsidies & Grants (7+8)		1229.73	570.96	
II.	Net increase/ decrease in Capital liabilities				
	a). Fresh borrowings				
	I) State Loans				
	ii) Foreign currency Loans / Credits				
	iii) Other borrowings		1938.79	905.09	
	Total of (a)		1938.79	905.09	
	b) Repayments :				
	I) State Loans				
	ii) Foreign currency Loans / Credits				
	iii) Other borrowings		1130.20	1440.82	
	Total of (b)		1130.20	1440.82	
	Net Increase/(Decrease) in Capital liabilities (a) - (b)		808.58	-535.74	
III.	Increase/(Decrease) in equity Capital		0.00	0.00	
IV.	Total Funds available for Capital Expenditure (I+II+III)		2038.31	35.22	
V	Funds utilised on Capital Expenditure				
	a) On projects		1544.65	1434.67	
	b) Advance to Suppliers & Contractors				
	c) Intangible Assets		11.02	6.56	
	d) Deferred Cost		-0.08	0.00	
	e) Long Term Loans and Advances		-113.68	-90.80	
	Total of V (a+b+c+d)		1441.91	1350.43	
VI	Net Increase/(Decrease) in Government contribution				
VII	Net Increase/(Decrease) in Terminal benefit fund		-783.91	1312.68	
VIII	Net Increase/(Decrease) in Provident fund		143.85	-10.56	
IX	Net Increase/(Decrease) in investments		-1.65	-1.79	
X	Net Increase/(Decrease) in cash / bank balance (IV - V- VI -IX)+ (VII+		-42.00	-11.30	
XI	Add opening cash & Bank balance		284.05	295.34	
XII	Closing Cash & Bank balance (X+XI)		242.05	284.04	

CHAPTER – 5: GENERAL EXPLANATION ON VARIOUS EXPENSES

5.1 Interest and finance charges: An amount of Rs 1887.78 Cr had been approved by the Hon'ble Commission under this head. The actual expense incurred was Rs.1592.02 Cr (net of capitalized interest Rs.307 Cr). A comparison summary of I & F charges under various heads, as approved by the Hon Commission and actually incurred as per audited accounts, are given below.

Table 5.1: Interests and finance Charges for 2019-20 (Rs Cr)									
	Approval				Actual				Difference over approval
Item	SBU G	SBU T	SBU D	Total	SBU G	SBU T	SBU D	Total	Total
Interest on Loan	82.45	185.05	222.94	490.44	103.77	122.09	371.45	597.31	-106.87
Less: Interest capitalized	0	0	0	0	57.51	37.73	211.77	307.00	-307.00
Interest net of capitalization	82.45	185.05	222.94	490.44	46.26	84.36	159.68	290.31	200.13
Security Deposit Interest	0.00	0.00	199.93	199.93			196.29	196.29	3.64
Master Trust Bond Interest	37.58	105.59	612.43	755.60	33.06	72.35	627.56	732.96	22.64
WC/OD interest	6.23	17.40	0.00	23.63	8.53	18.68	162.04	189.25	-165.62
PF interest	9.98	22.03	162.58	194.59	7.72	16.90	146.63	171.26	23.33
Other interests	0	0	0	0			11.96	11.96	-11.96
Carrying cost	0	0	223.59	223.59					223.59
Total I&FC	136.24	330.07	1421.47	1887.78	95.57	192.29	1304.16	1592.03	295.75

5.2 Interest on loans: The interest paid on short- and long-term loan amounted to Rs. 597.31 Cr (Rs. 570.12 Cr for 2018-19) and exceeded the sum approved by Rs.106.87 Cr. Difference is mainly because of the normative approach adopted by the Hon Commission to assess the normative loan. While approving ARR, Hon'ble Commission considered trued up normative loan for 2015-16 and thereafter provisionally assessed the normative loan for 2016-17 and 2017-18. Then, provisional GFA addition for 2018-19 and 2019-20 were considered to ascertain the level of normative loan as on 31.03.2020. Actual average rate of interest during the year 2019-20 was 9.56% against approved rate of 9.43%. Normative interest was approved at Rs.490.44 Cr as summarized below:

Table 5.2 Computation of normative loan as on 01.04.2020 as per order dated 08.07.2019 (Rs Cr)					
Sl. No	Description	SBU G	SBU T	SBU D	Total
1	Opening levels of normative Loan (as on 1-4-2019)	730.20	1558.17	1953.58	4241.95
2	Provisional Asset Addition Excluding grants for 2019-20	448.07	1082.11	1222.17	2752.35
3	Contribution & Grants	0.00	25.00	399.28	424.28
4	Net Addition to Normative loan 2019-20 (2-3)	448.07	1057.11	822.90	2328.07
5	Repayment for 2019-20 (Depreciation)	141.38	173.47	93.47	408.32
6	Closing provisional Normative Loan 31.03.2020	1036.89	2441.81	2683.01	6161.70
7	Average normative loan	883.55	1999.99	2318.29	5201.83
8	Rate of interest	9.33%	9.25%	9.62%	
9	Interest charges	82.45	185.05	222.94	490.44

5.3 However, the actual outstanding loan as on 31.03.2020 was Rs.7008.94 Cr as against the assessed normative loan of Rs.6161.70 Cr by the Hon'ble Commission. Actual loan exceeded the

assessed levels by Rs. 847.24 Cr. This has contributed to the increase of actual interest over approval. Source wise borrowings, repayments and interests are given in **Appendix- 1**. SBU wise details are furnished in **Appendix 1A, 1B and 1C** respectively for SBU G, SBU T and SBU D. Summary of loan details are furnished below:

SBU	Opening (01/04/19)	additions during the Year	Repayments during the year	Closing (31/03/20)	Average loan	Interest on loan	Average interest rate (%)
SBU G	926.26	732.89	383.54	1275.61	1100.94	103.77	9.43
SBU T	1195.66	845.28	550.99	1489.95	1342.81	122.09	9.09
SBU D	3366.39	1938.79	1061.8	4243.38	3804.89	371.45	9.76
Total	5488.31	3516.97	1996.33	7008.95	6248.63	597.31	9.56

5.4 Basis of apportionment loans among SBUs in accounts. The basis adopted in apportioning loan among SBUs in accounts are tabulated below:

No	Institution	Basis
A	SECURED LOANS-TERM LOANS	
1	L I C	GFA+CWIP
2	REC ON VARIOUS SCHEMES	GFA+CWIP
3	REC R-APDRP PART-B	DISTRIBUTION
4	R E C – RGGVY	DISTRIBUTION
5	REC – Medium Term Loan	GFA+CWIP
6	PFC-Pallivasal	GENERATION
7	PFC R-APDRP	DISTRIBUTION
8	SOUTH INDIAN BANK-Barapole	GENERATION
9	PFC GEL KAKKAYAM	GENERATION
10	REC-Distribution-23 circle scheme	DISTRIBUTION
11	REC-Distribution-Meter scheme	DISTRIBUTION
12	REC-Thottiyar	GENERATION
13	REC-Transmission-Kattakkada-Pothencode	TRANSMISSION
14	REC-Transmission-Group 1	TRANSMISSION
15	Special loan assistance REC	GFA+CWIP
16	DRIP	GENERATION
17	R E C-DDG Scheme	DISTRIBUTION
18	RIDF of NABARD-Upper Kallar & Banasurasagar	GENERATION
19	Special loan assistance -PFC	GFA+CWIP
20	PFC GEL Perunthenaruvi	GENERATION
B	UNSECURED LOANS TERM LOANS	
1	State Bank of India	GFA+CWIP
2	Vijaya Bank	GFA+CWIP
3	South Indian Bank	GFA+CWIP
4	Bank of India	GFA+CWIP
5	REC	GFA+CWIP
6	Union bank of India	GFA+CWIP
7	Canara Bank	GFA+CWIP
8	Andhra Bank	GFA+CWIP

5.5 Hon'ble Commission may kindly note that since short term loans could be obtained at comparatively lower rate than long term loans, KSEBL had availed short-term loans for meeting capital liabilities in the past. Considering the risk involved in financing capital project through short term loans, KSEBL started availing long and medium-term loans for this purpose by restricting STL borrowings to the possible extent. STL as on 31.03.2020 has been Rs. 400 Cr (the

same level as on 31.03.2019). A summary of Short-Term loans is given in **Appendix-2**. Thus, interest on STL for the year 2018-19 had been Rs.31.82 Cr compared to Rs. 75.97 Cr of previous year. The details are given in **Appendix-3**. Overdrafts & Demand loans as on 31.03.2020 amounted to Rs. 1930.23 Cr (Rs.2310.31 Cr in 2018-19) with an interest to the tune of Rs.189.25 Cr. Thus, Long term and STL registered an increase of Rs.1520.64 Cr and OD balance came down by Rs. 380.08 Cr during the year, due to which the overall borrowings recorded an increase of Rs.1140.52 Cr in comparison with 2018-19.

5.6 During 2019-20, KSEBL executed capital works to the tune of Rs.2902.36 Cr during the year and completed works capitalized to the tune of Rs 2143.64 Cr. Project wise details of CWIP are furnished in **Appendix 4**. A summary of capital works is furnished below:

Sl. No	SBU	CWIP as on 01/04/2019	Works executed during the year	GFA Addition	CWIP as on 31/03/2020
1	Generation	1,247.39	458.35	121.24	1,584.50
2	Transmission	635.71	899.36	378.62	1,156.44
3	Distribution	1,108.24	1,544.65	1,643.78	1,009.12
4	GRAND TOTAL	2,991.34	2,902.36	2,143.64	3,750.06

5.7 Hon'ble Commission, as per Truing up orders for 2016-17 has determined normative loan at Rs.1951.51 Cr as on 31.03.2017 after considering GFA addition till 31.03.2016. Additional normative loan for 2016-17 of Rs.517.64 Cr was approved as per order dated 12.10.2020. KSEBL claimed additional normative loan of Rs.281.47 Cr as per RP1 of 2021, but the Hon'ble Commission as per order dated 21.07.2021 in RP 1 of 2021 ordered that such amount can be considered from 2017-18 onwards only.

5.8 It is respectfully submitted that Hon'ble Commission has determined normative loan as on 01.04.2015 (at the beginning of the 3-year control period from 2015-16 to 2017-18). Aggrieved on the determination of normative loan balance as on 01.04.2015 (Rs.2276.22 Cr) by the Hon'ble Commission in the truing up order for 2016-16, KSEBL sought review for an additional claim of Rs.467.60 Cr, which was turned down as per order dated 16.05.2019. Considering the long-lasting financial implication, KSEBL has filed an appeal before the Hon'ble APTEL (Appeal No.31 of 2019). Hon'ble Commission, took similar view in the truing up order for 2016-17 also and KSEBL appealed against the decision as per Appeal No. 27 of 2019), both the appeals are pending disposal before the Hon'ble APTEL.

5.9 In the truing up order for 2017-18 also, the claim of KSEBL on this count was not admitted. **KSEBL retains the claim in true up for 2019-20 also as had been done for the year 2018-19.**

5.10 Hon'ble Commission, as per order dated 25.06.2021 in OA 9/2020, has decided the truing up for 2017-18, in which normative loan has been approved at Rs.2984.65 Cr against Rs.3410.43 sought for true up by KSEBL. The reason for variation comprised of disputed claim and trued up additional loans for 2016-17 and 2017-18 as detailed below:

SI No	Particulars	SBU G	SBU T	SBU D	Total
1	As per TU petition filed by KSEBL	889.69	1044.26	1476.48	3410.43
2	Less: Disputed claim pending before APTEL	135.23	131.21	201.16	467.60
3	Less:2016-17-GFA claim not approved	91.31	4.89	3.34	99.54
4	Less: 2017-18-GFA claim not approved	46.24	-4.45	0.00	41.79
5	Add: Normative depreciation for 2017-18 claim over approval- On opening GFA	10.87	4.62	167.66	183.15
6	As per Truing up order	627.78	917.23	1439.64	2984.65

5.11 As per audited accounts for 2018-19, addition to fixed assets amounts to Rs.1672.81 Cr and Capital subsidies and Grants received during the year was 523.18 Cr. GFA addition eligible as per Tariff Regulation, 2018 amounts to Rs.1653.53 Cr against Rs. 1672.81 Cr as per audited accounts. GFA addition eligible for depreciation amounts to Rs.1125.76 Cr and additional normative loan Rs. 1130.35 Cr as furnished below:

SI.No	Particulars	SBU G	SBU T	SBU D	TOTAL
1	Addition as per Accounts	103.66	365.43	1203.72	1672.81
2	Less: Decommissioning liability	0.09	0.34	1.22	1.65
3	Less: Part capitalization	0.77	26.74	0.00	27.51
4	Add: Part capitalization in 2016-17 but commissioned during 2018-19	0.00	1.78	0.00	1.78
5	Add: Part capitalization in 2017-18 but commissioned during 2018-20	1.06	7.04	0.00	8.10
6	GFA addition eligible as per Regulation	103.86	347.17	1202.50	1653.53
7	Less: Consumer contribution & grants	13.34	56.91	452.93	523.18
8	GFA addition eligible for normative loan as per Regulation	90.52	290.26	749.57	1130.35
9	Less: Land value addition excluding the portion under part capitalization	0.46	3.89	0.24	4.59
10	GFA addition eligible for depreciation	90.06	286.37	749.33	1125.76

5.12 Thus, Normative loan as on 31.03.2019 works out to Rs.4200.40 Cr as follows:

1	Normative loan as on 01.04.2018 as per TU order	627.78	917.23	1439.64	2984.67
2	Add: KSEBL claim before Hon'ble APTEL	135.23	131.21	201.16	467.60
3=(1+2)	Normative loan as on 01.04.2018 considered in this submission	763.01	1048.44	1640.80	3452.27
4	Add: Additional normative loan during 2018-19	90.52	290.26	749.57	1130.35
5=(3+4)	Total normative loan	853.53	1338.70	2390.37	4582.62
6	Normative depreciation for 2018-19	124.73	160.32	97.17	382.22
7=(5-6)	Closing normative loan as on 31.03.2019	728.80	1178.38	2293.20	4200.40

Additional capitalization during 2019-20 and normative loan thereon.

5.13 As stated earlier, addition to fixed assets amounts to Rs.2143.64 Cr as summarized in Table 5.4 and detailed in Appendix 4. The asset class wise details of fixed assets addition under the strategic business units of SBU G, SBU T and SBU D during 2019-20 is furnished below:

Table 5.9 SBU wise -Asset class wise GFA addition for 2019-20 (Rs Cr)					
Sl.No	Description	2018-19			
		SBU G	SBU T	SBU D	Total
1	Land	8.80	4.77	0.35	13.92
2	Building	40.04	22.80	13.63	76.47
3	Hydraulic works	2.69	0.62		3.31
4	Other Civil works		26.39	2.22	28.61
5	Plant & Machinery	66.68	166.30	164.63	397.61
6	Lines, cable networks etc.	0.89	154.52	1420.77	1576.18
7	Vehicle	0.11	0.25	0.09	0.44
8	Furniture & Fixtures	1.22	0.62	2.07	3.91
9	Office equipment	0.73	2.00	38.44	41.17
10	Decommissioning liability	0.08	0.35	1.59	2.01
11	Total	121.23	378.62	1643.78	2143.64

5.14 SBU wise details of GFA addition with explanation is furnished below:

SBU GENERATION:

5.15.1 Hon'ble Commission may kindly note that Kuttiadi SHEP and RMU Poringal were newly commissioned during 2019-20.

5.15.2 GFA worth Rs.9.05 Cr represent part capitalization within the meaning of Tariff Regulations. Asset category wise details of part capitalized assets are furnished in **Appendix 5**.

5.15.3 Hon'ble Commission did not approve decommissioning liability in GFA addition, accounted by virtue of IND AS provisions, during the course of truing up for the year 2016-17. Therefore, decommissioning liability of SBU G amounting to Rs.0.08 Cr is not considered in GFA addition during the year for truing up purpose.

5.15.4 After excluding part capitalized assets during 2019-20 and de commissioning liability from the GFA addition and considering part capitalized value for Kuttiadi SHEP and RMU Poringal, the asset addition eligible as per Tariff Regulation amounted to Rs.116.27 Cr as detailed in Table below.

5.15.5 Project wise break up of part capitalization is furnished in **Appendix 5**. Item wise break up of GFA of SBU G are summarized below:

Table 5.10: GFA addition eligible as per Tariff Regulation for SBU G (Rs. Cr)							
No.	Particulars	Gross fixed assets for 2019-20 as per Accounts			Part capitalization	Decommissioning liability	Addition net of adjustments
		Year beginning	Additions	Year End			
1	Land & land rights	1495.85	8.80	1504.65	7.79		1.01
2	Hydraulic works	1398.67	2.69	1401.36	1.15		1.54
3	Building & Civil works of Power plant	575.35	40.04	615.39	0.05		39.99
4	Plant & machinery including sub-station equipment	13461.53	66.68	13528.21			66.68
5	Line, cable network etc	7.48	0.89	8.37			0.89
6	Vehicles	10.09	0.11	10.20			0.11
7	Furniture & fixtures	4.99	1.22	6.21			1.22
8	Office Equipment	11.19	0.73	11.92	0.06		0.67
9	Decommissioning liability		0.08	0.08		0.08	0.00
	Total (1) to (9)	16965.12	121.24	17086.35	9.05	0.08	112.11
	Add: Part capitalized cost in 2016-17- Kuttiadi & Poringal			0			4.16
	True up claim for 2018-19			0			116.27
	Enhancement in value due to revaluation	11988.98		11988.98			
	Net of enhancement in value	4976.14		4976.14			

5.15.6 Hon'ble Commission may kindly note that capital subsidy and grants received during 2019-20 amounted to Rs.2.10 Cr as detailed in Appendix 5. Hon'ble Commission may be pleased to approve GFA addition under SBU G for Rs.114.17 Cr (Rs.116.27 Cr- Rs.2.10 Cr) for the year 2019-20 for the purpose of normative loan and 113.16 Cr (Excluding land value of Rs.1.01 Cr) for depreciation. Account code wise break up of capitalization during the year is furnished in **Appendix 6**.

SBU Transmission:

5.16.1 As per audited accounts, GFA addition during the year has been Rs.378.62 Cr. Details are furnished in Appendix 4. Out of the GFA addition during the year of Rs.378.62 Cr; assets worth Rs.30.15 Cr represent part capitalization within the meaning of Tariff Regulations. Asset category wise break up in respect of part capitalized assets are furnished in **Appendix 7**.

5.16.2 KSEBL, as per truing up petition for 2016-17 to 2018-19 has excluded part capitalized projects in respect of SBU T as envisaged in the Tariff Regulations. Out of the projects part capitalized in 2016-17, 2017-18 and 2018-19, projects amounting to Rs. 11.21 Cr, Rs. 8.55 Cr and Rs. 16.29 Cr (aggregating to Rs. 36.05 Cr) were commissioned in 2019-20. Details are furnished as per **Appendix 8 to 10**.

5.16.3 Thus, part capitalized assets and decommissioning liability during the year were deducted from the GFA addition as per accounts. Thereafter, part commissioned assets in earlier years but commissioned in 2019-20 were considered to arrive at the asset addition eligible as per

Tariff Regulation. This amounted to Rs.384.17 Cr {Rs.378.62 Cr-(Rs.30.15 Cr+ Rs.0.35 Cr) +(11.21 Cr+8.55 Cr+16.29 Cr)} as detailed in Table below:

Table 5.11 GFA addition for SBU T for Regulatory purpose (2018-19) (Rs Cr)										
No	Assets Group	Gross fixed assets			Adjustments-Deductions		Adjustments-Additions			GFA Addition as per Regulation
		01.04.2019	Addition	31.03.2020	Part capitalized (19-20)	Decommissioning liability (19-20)	Part capitalized in 2016-17	Part capitalized in 2017-18	Part capitalized in 2018-19	
1	Land & land rights	275.51	4.77	280.28	0.28		1.20	2.43	0.53	8.65
2	Buildings	358.97	22.80	381.77	0.74		0.16	0.60	0.56	23.38
3	Hydraulic Works	10.46	0.62	11.08	0.00		0.00	0.00	1.80	2.42
4	Other Civil works	447.39	26.39	473.78	0.37		0.37	0.31	2.28	28.98
5	Plant & Machinery	2418.97	166.30	2585.27	2.91		9.44	2.97	3.37	179.17
6	Lines, cable networks etc.	2005.12	154.52	2159.64	25.83		0.03	2.24	7.76	138.72
7	Vehicle	7.57	0.25	7.82	0.00		0.00	0.00	0.00	0.25
8	Furniture and Fixtures	6.47	0.62	7.09	0.01		0.00	0.00	0.00	0.61
9	Office Equipments	13.29	2.00	15.29	0.01		0.00	0.00	0.00	1.99
10	Decommissioning liability	0.34	0.35	0.69		0.35				0.00
11	Gross Asset (Total (1) to (14))	5544.08	378.62	5922.70	30.15	0.35	11.21	8.55	16.29	384.17

5.16.4 Details of ARU wise-project wise GFA addition are furnished in **Appendix 11**. Major Project wise details of sub stations and lines commissioned in 2019-20 viz. scheduled and actual start and COD, originally envisaged and actual capital cost, reason for delay and cost along with year wise split up of expenditure incurred are furnished in **Appendix 12**.

5.16.5 Consumer contribution, grants and subsidies received during the year amounted to Rs.161.68 Cr as detailed Appendix. GFA addition to the tune of Rs. 222.49 Cr (Rs.384.17 Cr-Rs.161.68 Cr) may kindly be approved as GFA addition eligible for normative loan and Rs.213.84 Cr (excluding land value Rs.8.65 Cr) as GFA eligible for depreciation.

GFA addition for SBU D:

5.17.1 As per audited accounts, CWIP at the beginning of the year was Rs.1108.24 Cr. Additional capital expenses incurred and assets capitalized during the year to the tune of Rs.1544.65 Cr and Rs.1643.78 Cr respectively as detailed below:

Project Code	Brief Description of Project	Cost as on 01/04/2019	Incurred during the year	Capitalized during the year	Balance as on 31/03/2020
14.05	Deen Dayal Upadhyay Gram Jyothi Yojana (DDU GJY)	67.23	149.67	213.11	3.79
14.13	Integrated Power Development Scheme (IPDS)	56.7	358.08	365.88	48.9
14.5	Rural Electrification Scheme	0.04	0.33	0.32	0.04
14.51	Distribution Line Extension	1.33	130.59	130.93	0.99
14.52	Distribution Service Connection	3.95	148.7	147.79	4.87
14.53	Distribution System Improvement	9.22	408.15	399.68	17.69
14.54	Electrification of Harijan Colonies	0	0.29	0.29	0
14.55	Electrification of Tribal Colonies	0	0.4	0.4	0
14.57	Punja Package	0.08	0.39	0.35	0.12
14.58	System Improvement in other areas	0.26	4.89	5.08	0.07
14.59	Distbn. Capacitor Installation Scheme	0	0.99	0	0.99
14.6	Street Lights	2.13	41.96	41.49	2.59
14.61	Expenditure due to Natural Calamity	0.06	8.86	8.88	0.05
14.62	RGGVY-Village electrification Infrastructure	3.13	-0.25	2.88	0
14.63	RGGVY-For effecting BPL Service Connection	0.24	0.04	0.27	0
14.67	Part B Projects of R-APDRP	41.14	89.14	114.41	15.87
14.81	MLA Asset Development Fund Scheme (MLA ADF)	0	0.13	0.13	0
14.82	R- APDRP Scheme	397.68	66.31	56.07	407.93
14.9	CWIP - General	523.58	133.81	153.48	503.91
14.91	Innovation fund	0.11	0.54	0.63	0.02
14.99	Projects not Identified	1.37	1.62	1.7	1.29
	SUB TOTAL (C)	1,108.24	1,544.65	1,643.78	1,009.12

5.17.2 Decommissioning liability amounting to Rs. 1.59 Cr is included in the GFA addition for the year of Rs. 1643.78 Cr. Consumer contribution, grants and subsidies received during the year 2019-20 has been Rs.533.46 Cr, details of which are given in Appendix. After excluding contribution etc GFA addition eligible for normative loan amounts to Rs. 1108.73 Cr. (Rs.1643.78 Cr- (Rs.533.46 Cr+ Rs.1.59 Cr). GFA addition eligible for depreciation amounts to Rs. 1108.38 Cr after excluding land value of Rs.0.35 Cr (Form D3.5 of the petition).

5.18 **Capitalization of expenses:** It is respectfully submitted that KSEBL earmarks amounts meant for capitalization of various expenses incurred on capital works carried out during the year. Such amount earmarked for subsequent capitalization is deducted from the actual employee cost and interest on loan annually and directs the ARUs to include the same under CWIP itself. Expenses so earmarked for capitalization during subsequent years amounted to Rs.769.61 Cr. It may kindly be noted that expenses earmarked annually would continue to be disclosed under CWIP till completion of related works and transfer to GFA. Apportionment of expenses earmarked for capitalization among SBUs in 2019-20 is furnished below:

Sl. No	Description	Total	SBU G	SBU T	SBU D
1	Interest and Finance charges	57.51	37.73	211.77	307.01
2	Employee cost	69.34	61.29	330.3	460.93
3	A&G expenses	0.42	0.83	0.42	1.67
3	Total	127.27	99.85	542.49	769.61

5.19 The accounting treatment followed in annual accounts towards capitalization of expenses differs from that adopted for Regulatory purposes. Regulatory approval of normative interest is granted only for the commissioned assets and no allowance is permissible for CWIP. Similarly, O&M expenses with regard to GFA are allowed on assets put to use at normative basis. The norms were derived based on net trued up expenses of previous years. Therefore, in the truing up petition, normative interest as well as normative O&M expenses are considered as a charge in ARR and no portion earmarked towards subsequent capitalization.

Contribution and Grants:

5.20 SBU wise break up of Capital subsidies and Grants received during the year as per accounts and claimed in true up are as follows:

SL No.	PARTICULARS	GEN	TRANS	DIST	TOTAL
1	Consumer contribution	0.00	58.86	342.25	401.11
2	Subsidies	2.10	0.00	0.00	2.10
3	Grants Recd. Towards Cost of Fixed Assets	0.00	101.17	152.08	253.25
4	Others	0.00	1.64	39.14	40.78
5	Gross Total	2.10	161.68	533.46	697.24
6	Add: Concessional loan	-5.34	-8.52	-82.07	-95.93
7	Add: Decommissioning liability	0.03	0.39	1.59	2.01
8	Less: Subsidies & grants amortization	5.44	34.41	160.36	200.22
9	As per Accounts	-8.65	119.13	292.63	403.10

5.21 On the basis of the above submission, GFA addition eligible as per Tariff Regulation, 2018 amounts to Rs.2142.63 Cr against Rs. 2143.64 Cr as per audited accounts. GFA addition eligible for depreciation amounts to Rs.1435.38 Cr and additional normative loan Rs. 1445.39 Cr. Details are furnished below:

SI.No	Particulars	SBU G	SBU T	SBU D	TOTAL
1	Addition as per Accounts	121.24	378.62	1643.78	2143.64
2	Less: Decommissioning liability	0.08	0.35	1.59	2.02
3	Less: Part capitalization	9.05	30.15	0	39.20
4	Add: Part capitalization in 2016-17 but commissioned during 2019-20	4.16	11.21	0	15.37
5	Add: Part capitalization in 2017-18 but commissioned during 2019-20	0	8.55	0	8.55
6	Add: Part capitalization in 2018-19 but commissioned during 2019-20	0	16.29	0	16.29
7	GFA addition eligible as per Regulation	116.27	384.17	1642.19	2142.63
8	Less: Consumer contribution & grants	2.10	161.68	533.46	697.24
9	GFA addition eligible for normative loan as per Regulation	114.17	222.49	1108.73	1445.39
10	Less: Land value addition excluding the portion under part capitalization	1.01	8.65	0.35	10.01
11	GFA addition eligible for depreciation	113.16	213.84	1108.38	1435.38

5.22 Normative loan as on 31.03.2020 and normative interest for the year works out to Rs.5237.89 Cr and Rs.450.17 Cr respectively as detailed below may kindly be approved.

Table 5.16 Computation of Normative loan as on 01.04.2020					
Sl. No	Description	SBU G	SBU T	SBU D	Total
1	Closing balance of Normative loan as per True up order for 2017-18 (OA 09/2020 dated 25.06.2021)	627.78	917.23	1439.64	2984.67
2	Add: Disputed claim pending before APTEL	135.23	131.21	201.16	467.60
3	Normative loan for GFA addition 2018-19	90.52	290.26	749.57	1130.35
4	Less Normative repayment 2018-19	124.73	160.32	97.17	382.22
5= (1+2+3-4)	Opening normative loan as on 01.04.2019	728.80	1178.38	2293.20	4200.40
6	Additional normative loan for 2019-20	114.17	222.49	1108.73	1445.39
7	Normative repayment 2019-20	125.93	162.70	119.27	407.90
8= (5+6-7)	Closing normative loan 31.03.2020	717.04	1238.17	3282.66	5237.89
9= (5+8)/2	Average Normative loan for the year 2019-20	722.92	1208.28	2787.93	4719.14
10	Weighted average interest rate for 2019-20 (%)	9.43	9.09	9.76	9.56
11=9*10%	Normative interest for 2019-20	68.14	109.86	272.17	450.17

5.23 Thus, Normative loan as on 31.03.2020 amounts to Rs.5237.89 Cr along with normative interest of Rs.450.17 Cr

5.24 **Interest on Overdraft:** A sum of Rs.189.25 Cr (Rs.148.95 Cr in 2018-19) was incurred during the year under this head. Expenses under this head could not be claimed as per Tariff Regulation, 2018. Hon'ble Commission was pleased to approve carrying cost on un bridged revenue gap from 2015-16 onwards. In view of the above, KSEBL is not seeking true up of interest paid on overdraft during the year 2019-20.

5.25 Carrying cost on approved revenue gap:

5.25.1 Hon'ble Commission had trued up revenue gap of Rs.6864.13 Cr till 2017-18 (excluding 2014-15, for which orders are yet to be issued). Based on the methodology adopted by the Hon'ble Commission in TU 16 & TU 17, average GPF balance of Rs.2276.22 Cr has been excluded from the approved gap to determine the revenue gap eligible for carrying cost. Actual average interest on loans during 2019-20 for SBU D had been 9.76 %. Accordingly, a sum of Rs.447.78 Cr is claimed as carrying cost for the year 2019-20 in respect of trued up revenue gap as detailed below:

Table 5.17: Computation of carrying cost on approved revenue gap		
1	Total un bridged revenue gap as on 31-03-2011	424.11
2	Revenue gap as per the orders on truing up for the year 2011-12	1386.97
3	Revenue gap as per the orders on truing up for the year 2012-13	3132.97
4	Remand order dated 09.05.17-2009-10	107.9
5	Remand order dated 19.05.17-2010-11	204.7
6	True up order 2013-14 dated 20.06.2017	195.5
7	RP 2/2017 dated 07.09.2017 on TU 2011-12	4.96
8	True up order 2015-16 dated 21.08.2018	202.97
9	True up order 2016-17 dated 14.09.2018	1031.06
10	RP 3/2019 on TU 2016-17	47.99

11	Gap as per additional submission FY 17- OA 64/2019 dt 12.10.2020	39.61
12	OA 9/2020 on True up 2017-18 dated 25.06.2021	84.13
13	RP 1/2021 TU 2016-17 dated 21.07.2021	1.26
14	Total trued up revenue gap (1 to 13)	6864.13
15	Less: Average PF balance for 2019-20 (2209.47+2342.96)/2	2276.22
16	Net revenue gap	4587.92
17	Carrying cost at average interest rate of 9.76 % on above	447.78

5.25.2 It is further submitted that the Hon'ble APTEL, as per judgment dated 08.04.2015 in Appeal 160 of 2012 and batch has laid down the principle based on which carrying cost is to be allowed. The decision was reiterated in judgment dated 22.04.2015 in Appeal 174 of 2013 as well. The same is reproduced below:

42. We find that for carrying cost, the State Commission has considered the revenue gap to be applicable from the end of the year of the occurrence of the revenue gap up to the middle of the year in which the same is proposed to be recovered. This is not correct. The interest to be calculated for the period from the middle of the financial year in which the revenue gap had occurred up to the middle of the financial year in which the recovery has been proposed...This is because the expenditure is incurred throughout the year and its recovery is also spread out throughout the year. Admittedly, the revenue gap will be determined at the end of the financial year in which the expenditure is incurred. However under or over recovery is the resultant of the cost and revenue spread out throughout the year. Similarly, the revenue gap of the past year will be recovered throughout the financial year in which its recovery is allowed. Therefore interest on revenue gap as a result of true up for a financial year should be calculated from the mid of that year till the middle of the financial year in which such revenue gap is allowed to be recovered.

43. To explain this point let us assume that there is a revenue gap of 12 crores in the true up of FY 2010-11. If the cost and the revenue and the permitted expenditure had been properly balances, this gap of 12 crores would have been recovered throughout the 12 months of FY 2010-11. Now, this revenue gap is allowed to be recovered in tariff during FY 2013-14. The recovery of gap of Rs. 12 crores from the distribution licensee consumers will be spread over the 12 months period of 2013-14. Therefore carrying cost would be calculated from the middle of FY 2010-11 to middle of FY 2013-14 ie 3 years.

5.25.3 Hon'ble Commission may kindly note that the revenue deficit sought for True up for 2018-19 (OA 13/2020) amounted to Rs. 759.88 Cr. In view of the above judgment, Hon'ble Commission may kindly approve carrying cost for the revenue gap till 2018-19 (including the additional revenue gap that may be approved on the Review petition filed by KSEBL against Truing up for 2017-18) also in addition to the claim under Table 5.10. Carrying cost for this amount at average interest rate of 9.76 % amounts to Rs.74.16 Cr.

5.25.4 Revenue gap for the year 2019-20 sought to be trued up is Rs.553.10 Cr. In view of the APTEL order, Hon'ble Commission may kindly approve carrying cost for the revenue gap for 2019-20 from the middle of the year at Rs.26.16 Cr.

5.25.5 Hon'ble Commission may kindly note that KSEBL has managed the overall finances through borrowings and deferred liabilities like Master Trust payments, electricity duty etc. It may kindly be noted that such deferred liabilities are to be honoured with interest on a later date. Therefore, Hon'ble Commission may please approve Rs.548.11 Cr towards carrying cost for 2019-20 under SBU D as detailed below:

Table 5.18: Computation of carrying cost on additional revenue gap		
1	On approved revenue gap till 2017-18	447.78
2	On revenue gap sought for TU 2018-19 of Rs.759.88 Cr.	74.16
3	On current year revenue gap	26.16
4	Total	548.11

5.25.6 Hon'ble Commission, as per order dated 25.06.2021 in the matter of truing up for 2017-18, has ascertained Security deposit over the working capital requirement amounting to Rs.1019.70 Cr for SBU D. While approving carrying cost, Hon'ble Commission considered this amount (Rs 1019.70 Cr) as funds available for meeting approved and unbridged revenue gap. KSEBL would like to furnish the following for the kind consideration of the Hon'ble Commission:

- (i) Arrears of electricity charges are not covered by security deposit and therefore, KSEBL has to raise working capital loans to meet the fall in revenue collection. Cost associated with it is not considered in ARR as per regulations. On the other hand, interest collected on arrears form part of ERC as other income. A sum of Rs. 65.63 Cr has been collected as late payment surcharge during the year 2019-20.
- (ii) For making prompt payment to generators to earn rebate, higher working capital is required. The cost associated for ensuring prompt payment i.e., for making payment before due date is not recognized in ARR. On the other hand, rebate earned is recognized in ERC as other income. KSEBL earned Rs.109.10 Cr as rebate on prompt payment of bills during 2019-20.
- (iii) In other words, while income from these two heads is included in the ERC, the cost for higher working capital to take care of these eventualities are not included in ARR. The security deposit in excess of working capital requirement, as per Tariff regulations, for 2019-20 amounts to Rs. 571.47 Cr as detailed in chapter 4.
- (iv) Increase in arrears as on 31.03.2020 over the previous year was Rs. 688.31 Cr (as per note 6 & 11 of audited accounts Rs.2252.20 Cr-Rs. 1563.89 Cr). Average monthly power purchase cost (excluding rebate) amounts to Rs. 708.95 Cr. Hon'ble Commission may kindly note that the additional working capital requirement on account of arrears and additional working capital requirement to make prompt payment to generators exceeds the surplus security deposit of Rs.571.47 Cr.
- (v) In view of the above, Hon'ble Commission may kindly desist from considering surplus security deposit as per regulation as funds available for meeting accumulated revenue gap and may be pleased to approve carrying cost as per Table 5.18 above.

Interest on security deposit:

- 5.26 Hon'ble Commission approved interest on SD for the year at Rs.199.93 Cr. The Actual Security Deposit balance as per accounts was **Rs.3021.22 Cr** at the beginning of the year (01-04-2019) on which the interest at 6.50 % is provided in accounts for FY 2019-20 (**Rs 196.29 Cr**) on accrual basis. Actual disbursement in the FY 2019-20 amounted to Rs.173.05 Cr (disbursement against provision made for FY 2018-19 of Rs 177.31 Cr) as per provisions in Supply Code, 2014. Hon Commission may please approve the actual disbursement in 2019-20 amounting to Rs.173.05 Cr under SBUD.

Interest on PF:

- 5.27 Hon Commission approved Rs 194.59 Cr towards interest on PF. But as per the audited accounts, the actual interest paid on PF was Rs.171.26 Cr, which was less than approval by Rs.23.33Cr mainly due to fall in interest rate. Hon'ble Commission had considered average PF balance for 2019-20 at Rs. 2432.33 Cr and applied interest @ 8%. However, actual average PF balance was Rs.2276.22 Cr. The actual rate of interest, however, was at 8 % till June and later on had gone down 7.90 during the period from July to March. The actual interest as per the audited accounts may kindly be approved among SBUs as given below:

Table 5.19: Interest on GPF (Rs Cr)				
Item	SBU G	SBU T	SBU D	Total
Interest on GPF	7.72	16.9	146.63	171.26

Interest on Master Trust Bonds:

- 5.28 State Government, as per notifications dated 31.10.2013 and 28.01.2015, ordered creation of a Master Trust for meeting the unfunded liability of pension, gratuity and leave surrender as on 31.10.2013, in respect of the personnel transferred from erstwhile KSEB to KSEBL. Funding arrangements were put in place through issue of 2 series of Bonds for the total liability as on 31.10.2013 amounting to Rs.12418.72 Cr. Hon Commission recognized the unfunded pension liabilities as above and approved recovery of interest on KSEBL share of Bonds as per Tariff Regulations, 2018. Thus, Hon'ble Commission approved Rs.732.96 Cr towards interest on Master Trust bonds in the order. Even though KSEBL claimed Rs.372.90 Cr towards unfunded actuarial liability till 31.03.2017 (Rs.3728.98 Cr), Hon'ble Commission provisionally approved Rs.200 Cr with the observation that it shall hold separate proceedings to determine funding requirement.
- 5.28.1 It is respectfully submitted that the Actuarial liability as on 31.03.2017 towards the unfunded pension liability, gratuity liability and leave surrender liability stood at Rs.16147.70 Cr ie Rs.3728.98 Cr increase in liability for the period from 01.11.2013 to 31.03.2017. As per the actuarial valuation as on 31.03.2018, 31.03.2019 and 31.03.2020, the liability on this count has been assessed at Rs. 17732.57 Cr, Rs.19327.73 Cr and Rs. 20359.73 Cr respectively. The increase for the year 2019-20 has been Rs.1032.00 Cr and the same was captured in audited accounts as follows:

- (i) Liability pertaining to 2019-20 amounting to Rs.435.64 Cr has been booked under employee cost for the year and
- (ii) Remaining portion, pertaining to earlier years Rs.596.35 Cr under other comprehensive income in P&L account.

5.28.2 Kerala Service Rules as applicable in the Government are applicable to employees of KSEBL. The details of terminal benefits paid to retired employees in FY 2019-20 through Master Trust amounts to Rs.1558.88 Cr as detailed below:

Table 5.20: Amount paid to pensioners by Trust			
Month	Rs. Cr	Month	Rs. Cr
19-Apr	101.84	19-Nov	99.67
19-May	111.49	19-Dec	191.95
19-Jun	109.26	20-Jan	110.65
19-Jul	133.35	20-Feb	106.72
19-Aug	164.80	20-Mar	112.03
19-Sep	160.56	Total	1558.88
19-Oct	156.56		

5.28.3 KSEBL, as per audited accounts, has not accounted pension and terminal liabilities under employee cost by virtue of operationalization of Master Trust. Instead, accounted 10% interest on Bonds issued to Master Trust amounting to Rs.732.97 Cr. Bifurcation of interest on bonds among SBUs are as detailed below:

Table 5.21: Interest on Master Trust Bonds (Rs Cr)				
Item	SBU G	SBU T	SBU D	Total
Interest on Bonds	33.06	72.35	627.56	732.97

5.28.4 It is respectfully submitted that there is no deviation between interest approved for the year as per the orders of the Hon'ble Commission and the actual interest as per audited accounts. However, there has been minor difference between approval and actual under SBU wise segregation of total interest. In the MYT order, Hon'ble Commission adopted employee cost ratio for 2017-18 as the basis for SBU wise segregation of allowable interest whereas the ratio of working employee strength in SBUs was considered for the purpose in the audited accounts.

5.28.5 Tariff Regulations provide that, the annual pension contribution by KSEBL to the Master Trust based on the actuarial valuation is allowed to recover through tariff on annual basis. Statutory transfer scheme as well as tripartite agreement provides for the same. KSEBL has sought interest on unfunded portion of actuarial liability in the MYT petition against which Hon'ble Commission provisionally approved Rs. 200 Cr with the following observation:

.....Considering all these factors, the Commission is decided to hold a separate proceedings towards the determination of funds requirements of Master Trust. Till such time, the Commission provisionally allows Rs.200 crore as an additional funding for the Master Trust. Hence the figures shown as additional funding for the trust is only provisional and is subject to a prudency check before the same is finally allowed.

5.28.6 Actual pension and terminal benefit disbursement exceeded interest on bonds by Rs. 825.91 Cr. (Rs.1558.88 Cr-Rs.732.97 Cr). KSEBL has also accounted Rs.435.64 Cr against employee expenses to take care of the additional actuarial liability during the year 2019-20. It is humbly requested that the Hon'ble Commission may kindly true up an additional Rs.200 Cr as approved in MYT order for 2019-20, which may be subject to the final decision on the matter, in view of the fact that KSEBL has no other source to meet these expenses. Therefore, Hon'ble Commission may be pleased to provisionally approve Rs.200 Cr as detailed below against the huge additional actuarial liability.

Table 5.22: Interest on Master Trust Bonds (Rs Cr)				
Item	SBU G	SBU T	SBU D	Total
Interest on Bonds	10.26	22.64	167.10	200.00

5.28.7 Hon'ble Commission may kindly note that the current service cost as per actuarial valuation for 2019-20 amounts to Rs.435.64 Cr and the same has been included in the employee cost for the year as per accounts. Hon'ble Commission may be pleased to consider the current service cost for the year over Rs.200 Cr amounting to Rs. 235.64 Cr with interest as and when the scheme is finalized.

Other charges:

5.29 Hon'ble Commission has not approved any amount towards other interest. Actual interest on other liabilities as per accounts amounts to Rs.11.97 Cr as detailed below:

Table 5.23: Details of Other interest and charges (Rs Cr)	
Item	Amount
Power purchase and other interest (as per CERC orders)	9.38
Interest to suppliers/ contractors	0.23
Discount to consumers for timely payment of bills	2.33
Cost of raising finance	0.02
Total	11.97

5.29.1 Interest on power purchase bills has been classified under Other charges. The claim for interest accrued due to difference between provisional Annual Fixed Charges (AFC) approved by Hon'ble CERC and final AFC approved subsequently by Hon'ble CERC. Hon'ble CERC also ordered to compensate the generators through interest for the differential amount. The supplementary bills including the differential AFC and interest costs were raised by generators in line with tariff revision ordered by CERC for the control period 2019-24 and the payment is strictly in line with CERC regulations, which allow interest for the differential amount between provisional AFC and final AFC. Therefore, actual expense during the year may kindly be approved in truing up as shown below:

Table 5.24: Other interest (Rs Cr)				
Item	SBU G	SBU T	SBU D	Total
Power purchase and others			9.38	9.38
Interest to suppliers/ contractors			0.23	0.23
Discount to consumers for timely payment of bills			2.33	2.33
Cost of raising finance			0.02	0.02
Total			11.97	11.97

5.30 In view of the above submission, Hon'ble Commission may kindly approve interest and finance charges as summarized below:

Table 5.25: Statement showing comparison of I&F Charges-Approved, Actual and TU requirement for 2019-20 (Rs Cr)										
Sl No	Item	Approval	As per Accounts				True up requirement			
			SBU G	SBU T	SBU D	Total	SBU G	SBU T	SBU D	Total
1	Interest on Loan	490.44	103.77	122.09	371.45	597.31	68.14	109.86	272.17	450.17
2	Security Deposit Interest	199.93	0.00	0.00	196.29	196.29			173.05	173.05
3	Master Trust Bond Interest	732.96	33.06	72.35	627.56	732.97	33.06	72.35	627.56	732.96
4	Working capital/ OD interest	23.63	8.53	18.68	162.04	189.25	6.59	17.12		23.71
5	PF interest	194.59	7.72	16.90	146.63	171.25	7.72	16.90	146.63	171.26
6	Other interests	0.00	0.00	0.00	11.97	11.97			11.97	11.97
7	Carrying cost on revenue gap till last year	223.59							521.94	521.94
8	Carrying cost on current year revenue gap								26.16	26.16
9	Total	1865.14	153.08	230.02	1515.94	1899.04	115.51	216.23	1779.49	2111.23
10	Less: Interest capitalized		57.51	37.73	211.77	307.01				
11	I&FC net of capitalization	1865.14	95.57	192.29	1304.17	1592.03	115.51	216.23	1779.49	2111.23

Depreciation:

5.31.1 Hon Commission may kindly note that the depreciation as per audited accounts of Rs.901.92 Cr has been worked out at the rates specified in Tariff Regulations, 2018. From this amount, claw back depreciation was determined at Rs.200.21 Cr and credited to Other Income under Note 28 of Annual accounts. Since depreciation is claimed as per Regulations after deducting applicable claw back, it is humbly requested that the income accounted under note 28 towards claw back as per accounts may not be considered in True up.

5.31.2 Taking guidance from the methodology adopted by the Hon'ble Commission for the computation of normative depreciation for 2017-18, normative depreciation for 2019-20 has been computed at Rs.407.90 Cr as detailed below:

	Particulars	SBU-G	SBU-T	SBU-D	KSEBL
1	Opening GFA as on 1-4-2017 (As per TU Order 2017-18 (OA 9/2020 Dt 25.06.2021)	4658.32	4628.56	7530.50	16817.38
2	Total asset addition approved As per order dt 25.06.2021 for 2017-18	71.42	388.82	699.45	1159.69
3=(1+2)	Approved GFA as on 31.03.2018	4729.74	5017.38	8229.95	17977.07
4	GFA addition claimed for depreciation as per submission dt 30.07.2021 (2018-19)	90.06	286.37	749.33	1125.76
5=(3+4)	GFA as on 31.03.2019 considered for depreciation	4819.8	5303.75	8979.28	19102.83
6	Assets >12 years old (GFA as on 1-4-2007)	2995.64	2580.85	2640.35	8216.84
7	Fully depreciated Assets (assets up to 1-4-1989)	257.91	90.9	282.76	631.57
8=(6-7)	Assets having life 12-30 yrs	2737.73	2489.95	2357.59	7585.27
9=(8*2.80%)	Value of land (Average 2.8% of GFA)	76.66	69.72	66.01	212.39
10	Grants and contributions (upto 1-4-2007)			1895.1	1895.10
11=(8-9-10)	Assets having life 12-30 yrs eligible for depreciation	2661.07	2420.23	396.48	5477.78
12=(11*1.42%)	Depreciation for Assets 12-30 years (@1.42%)	37.79	34.37	5.63	77.78
13=(5-6)	Assets < 12 years old (1-4-2007 to 31-3-2019)	1824.16	2722.9	6338.93	10885.99
14=(13*2.80%)	Value of land (Average 2.8% of GFA)	51.08	76.24	177.49	304.81
15	Grants and contributions (1-4-2007 to 31-3-2019)	114.81	256.85	4504.65	4876.31
16=(13-14-15)	Opening balance of Assets < 12 years old	1658.27	2389.81	1656.79	5704.87
17	Asset addition for 2019-20 as per this submission	113.16	213.84	1108.38	1435.38
18=(16+17)	Closing balance of Assets <12 years Old (1-4-2007 to 31-3-2020)	1771.43	2603.65	2765.17	7140.25
19=(16+18)/2	Average Value of Assets <12 Years old	1714.85	2496.73	2210.98	6422.56
20=(19*5.14%)	Depreciation for assets <12 years (@5.14%)	88.14	128.33	113.64	330.12
21=(12+20)	Total Depreciation for assets for 2019-20	125.93	162.70	119.27	407.90

5.32 Details of Consumer Contribution and grants as on 31.03.2020 as per accounts amounted to Rs.3048.25 Cr as detailed below:

No	Particulars	Amount	Amount
1	Consumer contribution	1981.06	
2	Subsidies	164.45	
3	Grant	1148.44	
4	Local bodies etc	323.14	
5	De commissioning liability	24.19	3641.28
6	Less: Clawed back		
7	2013-14	9.12	
8	2014-15	24.65	
9	2015-16	39.39	
10	2016-17	77.1	
11	2017-18	97.39	
12	2018-19	145.16	
13	2019-20	200.22	593.03
14	Contribution and grants (Note 18) as per Accounts.		3048.25

5.33 Hon'ble Commission may kindly note that decommissioning liability considered under this head does not involve cash flow. Therefore, actual receipt of Consumer Contribution and grants till 31.03.2020 amounted to Rs.3617.09 Cr (Rs.3641.28-24.19). Additional contribution, grants etc received during the year amounts to Rs. 697.23 Cr. SBU wise break up of consumer contribution and grants as on 31.03.2020 as per accounts are furnished in **Appendix 13** hereto.

5.34 Gross Consumer Contribution and grants till 31.03.2019 as per accounts amounted to Rs.3037.96 Cr and after excluding concessional loans and decommissioning liability, actual receipt amounts to Rs.2919.85 Cr {3037.96- (95.93+22.18)}. Details of actual receipt, adjustment, claw back and balance as per audited accounts are detailed below:

No	Particulars	Amount	Amount
1	Consumer contribution	1579.95	
2	Grant and subsidy	1057.54	
3	Local bodies etc	282.36	
4	Concessional loan treated as grant (As per IND AS)	95.93	
5	De commissioning liability (IND AS)	22.18	3037.96
6	Less: Clawed back		
7	2013-14	9.12	
8	2014-15	24.65	
9	2015-16	39.39	
10	2016-17	77.1	
11	2017-18	97.39	
12	2018-19	145.16	392.81
13	Contribution and grants (Note 18) as per Accounts.		2645.15

5.35 Hon'ble Commission may kindly note that decommissioning liability and concessional loan considered under this head does not involve cash flow. Therefore, actual receipt of Consumer Contribution and grants till 31.03.2019 as per accounts amounted to Rs.2919.85 Cr. It was submitted in the Truing up petition for 2018-19 that Grant received from Government amounting to Rs.85.03 for the restoration of damages caused by flood (as detailed under onetime expenses) is to be excluded from this sum (as the same was utilized for restoration works and not for capital investment) to arrive at Contribution & grants for regulatory purpose, which amounts to Rs.2834.82 Cr (Rs.2919.85 Cr-Rs.85.03 Cr). Therefore, additional grants, contribution etc during the year 2018-19 amounts to Rs. 755.96 Cr. (Rs.840.98 Cr-Rs. 85.03 Cr)

5.36 **Others Rs. 21.97 Cr:** The details as per the audited accounts and item wise explanation are furnished below and detailed explanation of various items are provided there under.

No	Particulars	Amount
1	Research and Development Expenses	0.10
2	Miscellaneous	-0.20
3	Miscellaneous Losses and write-offs	21.81
4	Material cost variance	-4.68
5	Loss on account of flood/ cyclone etc	4.94
6	Others Total (1 to 5)	21.97

5.36.1 **Miscellaneous losses and write-offs** represent withdrawal of credits to revenue account. Losses on account of Flood etc denote compensation for death and danger to staff (0.53 Cr) and outsiders (Rs.4.45 Cr) and Loss on obsolescence (-0.05 Cr). **The material cost variance** represents the difference between the actual rate at which material was procured and the standard rate at which pricing the issue of material was made. As per the ESAAR-1985, the material cost is first accounted as per the standard rates and subsequently difference between the actual and standards are accounted under material cost variance. This policy has been dispensed with consequent to the integration of SCM software (material issues) and SARAS (accounting) software on 01.07.2017 for the distribution function. The credit balance under this head is mainly on account of transactions prior to the integration of SCM & SARAS software ie till 30.06.2017.

5.37 **Exceptional items Rs.28.60 Cr:** Expenses incurred for the restoration of assets damaged due to natural calamities are accounted under this head. SBU wise break up of other expenses and exceptional items are furnished below, which may kindly be approved.

Table 5.30: Other expenses & Exceptional items (Rs Cr)				
Item	SBU G	SBU T	SBU D	Total
Other expenses as per accounts	0.02	1.36	20.59	21.97
Exceptional items	3.75	0.13	24.72	28.60
Total	3.77	1.49	45.31	50.57

5.38 **O&M Expenses:** Hon'ble Commission approved Rs.2991.45 Cr under this head on normative basis against which a sum of Rs.3893.93 Cr was actually incurred during the year 2019-20, exceeding approval by Rs.902.48 Cr as summarized below:

Table 5.31: Details of O&M expenses for 2019-20 (Rs Cr)									
No	Particulars	Approval as per MYT Order				As per KSEBL Accounts			
		SBU G	SBU T	SBU D	Total	SBU G	SBU T	SBU D	Total
1	Employee cost					223.75	413.92	2870.74	3508.41
2	Less: Capitalized					69.34	61.29	330.3	460.93
3	Balance					154.41	352.63	2540.44	3047.48
4	R&M expenses					25.48	39.06	217.26	281.81
5	A&G expenses					26.34	97.53	442.43	566.30
6	Less: Capitalized					0.42	0.83	0.41	1.66
7	Balance					25.92	96.70	442.02	564.64
8	O&M New stations								
9	Total O&M Expenses	135.04	397.46	2458.95	2991.45	205.81	488.39	3199.72	3893.93

5.39 Hon'ble Commission may kindly note that the variation between amount approved and actual arose mainly towards actuarial liability (Rs. 435.64 Cr), Pay revision provision (Rs.250 Cr) under employee cost, PF incentive (Rs.102.65 Cr), Section 3(1) duty (Rs.130.43 Cr) and other operative expenses (Rs.199.39 Cr), which were not factored in the base year expenses adopted for the determination of normative values. Component wise details of O&M expenses is briefly explained below:

5.39.1 **Employee cost:** As stated earlier, actuarial additional liability for the year 2019-20 was included under employee cost at Rs.435.64 Cr. It may kindly be seen from the table that the yoy increase under employee cost (from 2015-16 to 2019-20) both in terms of gross employee cost and net employee cost is very meagre. Detailed tabulation is furnished in **Appendix 14.**

Table 5.32: Employee Cost for the period from 2015-16 to 2019-20 (Rs. Cr)						
Sl. No	Particulars	2015-16	2016-17	2017-18	2018-19	2019-20
1	Gross employee cost (before capitalization)-As per accounts	2288.32	2396.47	3038.4	3354.63	3508.41
	Less: Actuarial liability	0	0	509.42	498.37	435.64
	Less: Provision for pay revision	0	0	0	176	250
2	Employee Cost for the year less provisions	2288.32	2396.47	2528.98	2680.26	2822.77
3	Increase over previous year		108.15	132.51	151.28	142.51
4	YOY increase %		4.73	5.53	5.98	5.32
5	Capitalized	188.29	242.92	333.23	410.54	460.94
6	employee cost net of capitalization	2100.03	2153.55	2195.75	2269.72	2361.83
7	YOY increase		53.52	42.2	73.97	92.11
8	YOY increase %		2.55	1.96	3.37	4.06

5.39.2 Hon'ble Commission, in the Tariff Regulations, 2021, has stated that *"Many stakeholders and Associations have raised their serious concern with regard to the number of employees actually available in KSEB Ltd vis-à-vis those numbers considered by the Commission while truing up of accounts of the previous years. During February 2021, KSEB Ltd has implemented the Pay Revision with effect from July/August 2018 for its Officers and staff. As per Hon'ble APTEL decision in OP 1/2013 and 19/2013 in the Order dated 10.11.2014, the effect of pay revision have to be allowed as part of employee cost. The final norms of KSEB Ltd can be arrived at only after the truing up of the figures from the financial year 2018-19 is over and after the sub judice matter is resolved. The norms will be reworked accordingly."*

5.39.3 It was also mentioned that the norms are derived provisionally and truing up petitions for 2019-20 and 2020-21 are yet to be filed by KSEBL. KSEBL provided Rs.176 Cr and Rs.250 Cr respectively during 2018-19 and 2019-20 towards pay revision. During the finalization of accounts for 2020-21, the impact of pay revision was assessed and the additional provision over and above the sums already provided earlier amounting to Rs.585 Cr has been provided for in 2020-21.

5.39.4 **R&M expenses** R&M cost depends on the Gross Fixed Assets in use at the beginning of the financial year, age of the assets as well as inflation. SBU wise split up of R&M expenses as per accounts is furnished below:

Table 5.33: R&M expenses for 2019-20 (Rs Cr)				
Item	SBU G	SBU T	SBU D	Total
R&M expenses	25.48	39.05	217.26	281.79

5.39.5 As already submitted, expenses towards restoration of assets on account of natural calamities amounting to Rs.28.60 Cr has been incurred and disclosed under exceptional items. It may kindly be seen that KSEBL has been able to contain R&M expenses at optimum levels in spite of the ageing assets that are being maintained by KSEBL.

5.39.6 **A&G expenses** Hon'ble Commission may kindly note that A&G expenses as per accounts amounts to Rs.564.64 Cr. Detailed break up is available in Note 35 of the Annual Statement of Accounts. Expenses under this head contain predominantly, the following expenses:

Table 5.34 Administrative & General Expenses 2019-20 (Rs Cr)		
1	Conveyance	65.44
2	Other operative expenses	199.39
3	Expenses relating to CGRF & ERC	4.42
4	Electricity Duty u/s 3(I), KED Act	130.43
6	Power factor incentive to consumers	102.64
8	Freight	12.61
9	Rent, rates & taxes	11.65
10	Printing, Stationery, Telephone etc	17.83
11	All Other A&G expenses	21.89
12	Gross A&G Expenses	566.30
13	Less: Expenses Capitalized	1.66
14	Net A&G Expenses	564.64

5.39.7 Hon'ble Commission may kindly note that a sum of Rs.102.64 Cr has been disclosed under Power factor incentive as per audited accounts. In this regard, the following submission is made for the kind consideration of the Hon'ble Commission.

5.39.8 Power factor incentive and penalty were accounted in a single account based on the tariff category till 06/2017. After June 2017, the accounting for power factor incentive was accounted as debit to account head 76.196 (under A&G expenses group) and power factor penalty accounted as credit to account code 61.943 (under revenue from operation group- Misc. charges from consumers). But, during bill revision, posting of contra entries (to nullify the earlier entry) for incentive and penalty was erroneously done by accounting incentives as credit under penalty head (instead of crediting incentive) and bills with penalty were accounted as debit under power factor incentive head (instead of debiting power factor penalty). This has resulted in higher values under 2 account heads viz. Power factor incentive and Power factor penalty. It may kindly be noted that there will be no impact on Profit or loss of KSEBL, since the elimination of earlier entry got reflected in another head instead of the same head. The error happened only in respect of HT & EHT bills generated through Energize software. However, entries made for LT were not subject to the defect mentioned above since LT bills are generated and accounted by using a different software.

5.39.9 The impact of the above-mentioned anomaly during the year 2019-20, both power factor incentive and power factor penalty accounts were overstated by Rs.45.70 Cr as detailed below:

Month	As per Bills		As per Accounts		Difference		
	PFP	PFI	PFP	PFI	PFP	PFI	Net diff
Apr-19	1.14	8.45	11.75	19.06	-10.61	-10.61	0.00
May-19	0.96	7.95	1.46	8.45	-0.50	-0.50	0.00
Jun-19	0.77	8.48	1.87	9.58	-1.10	-1.10	0.00
Jul-19	0.90	7.46	29.01	35.58	-28.11	-28.12	0.01
Aug-19	1.66	3.52	3.65	5.45	-1.99	-1.93	-0.06
Sep-19	1.94	2.19	2.50	2.79	-0.56	-0.60	0.04
Oct-19	1.72	2.13	2.13	2.55	-0.41	-0.42	0.01
Nov-19	1.75	2.21	2.14	2.60	-0.39	-0.39	0.00
Dec-19	1.65	2.39	1.94	2.67	-0.29	-0.28	-0.01
Jan-20	1.73	2.74	2.24	3.26	-0.51	-0.52	0.01
Feb-20	1.56	2.87	2.32	3.62	-0.76	-0.75	-0.01
Mar-20	1.61	2.79	2.08	3.27	-0.47	-0.48	0.01
Total	17.39	53.18	63.09	98.88	-45.70	-45.70	0.00

5.39.10 In view of the above submission, it is humbly requested before the Hon'ble Commission that the below mentioned actual amounts may be considered in the truing up proceedings for Power factor incentive and Power factor penalty.

Particulars	As per accounts	Actual	Difference
Power factor incentive (under A&G expenses)	102.64	56.94	45.70
Power factor penalty (under Misc charges from consumers)	87.94	42.24	45.70

5.39.11 Thus, Rs. 56.94 Cr and Rs.42.24 Cr may kindly be trued up under Power factor incentive and Power factor penalty respectively.

5.39.12 KSEBL respectfully submits that the Hon'ble Commission may permit exclusion of power factor incentive from A&G expenses and the same deducted from revenue from sale of power in this petition.

5.39.13 Expenses under this head are also susceptible to business and infrastructure growth. One of the major expense items booked under A&G expense is the section 3(1) duty payable by KSEB to the Government. The section 3(1) duty is a statutory levy. Hon'ble Commission has not been admitting section 3(1) duty as a revenue expenditure quoting the provisions in the "Kerala Electricity Duty Act- 1963" that "(3) The duty under this section on the sales of energy should be borne by the Licensee and shall not be passed on to the consumers". Accordingly, since the year 2003-04, Hon'ble Commission has not admitted duty as pass through in tariff. It is humbly submitted that KSEB had already taken up the matter with the Government to enable Section 3(1) duty as pass through in tariff and also filed a second

appeal before the Hon'ble Supreme Court of India in the matter, which is pending disposal as of date.

5.39.14 Hon'ble Commission may kindly note that the variation between approval and actual were predominantly because of non-consideration of certain expenses for the determination of normative values. The above proposals may kindly be approved.

5.39.15 Hon'ble Commission may kindly note that the revision of pay and allowances are due from July/August 2018, against which a sum of Rs.250 Cr has been provided in accounts. Regulation 14 (3) of Tariff Regulation, 2018 provides that expenses relating to pay revision, if any, during the control period for the same level of employees as admitted in the truing up of accounts for the year 2016-17 of the Generation business/company or Transmission business/licensee or distribution business/licensee may be considered for pass through after due prudence check. It is respectfully submitted that the pay revision process has been completed in February, 2021. As per the prevailing practice, the revised pay is granted with retrospective effect and therefore, complete impact will be in the year of implementation. KSEBL is of the view that this can be minimized if annual provisions are approved in truing up. With this view, KSEBL seeks truing up of Rs.250 Cr over and above its normative entitlement.

5.39.16 Based on the Tariff Regulation, KSEBL is entitled to claim normative O&M expenses of Rs.2961.47 Cr for 2019-20 as explained in the respective chapters against Rs. 2991.45 Cr approved by the Hon'ble Commission, which may kindly be approved.

Sl. No	Particulars	SBU G	SBU T	SBU D	Total
1	True up claim as per norms	132.16	386.87	2442.44	2961.47
2	Approved as per Order dated 08.07.2019	135.04	397.46	2458.95	2991.45

5.40 Provision for pay revision amounting to Rs.250 Cr may also be approved as detailed below:

Sl. No	Particulars	SBU G	SBU T	SBU D	Total
	Provision for pay revision	15.94	29.50	204.56	250.00

5.41 **Return on Equity:** Return on equity is claimed @14% on the Government equity in KSEBL amounting (Rs.3499.05 Cr) to Rs.489.86 Cr. The function wise break up of equity is made on the basis of equity allocation among SBUs in the Trifurcated Balance sheet as detailed below:

Particulars	SBU G	SBU T	SBU D	Total
Equity Capital	831.27	857.05	1810.73	3499.05
RoE @14% on above	116.38	119.99	253.50	489.87

5.42 **Incentives as per Regulation:** By virtue of the provisions contained in Tariff Regulations, 2018, KSEBL is entitled to claim incentive on transmission system availability achieved over and above the target set by the Hon'ble Commission in MYT order. KSEBL is claiming Rs.8.38 Cr towards incentive on actual transmission system availability (99.01%) over target availability (98%) as explained in chapter 3. Hon'ble Commission may kindly approve the same as tabulated below:

ARR excluding incentive (Rs Cr)	940.64
Annual availability achieved	99.01%
Target availability	98%
Incentive	ARR*(Annual availability-Target availability)/ Target availability
Incentive for 2019-20 (Rs Cr)	9.69

5.43 **Gains on achievement of T&D loss reduction target:** As per Tariff Regulations, 2018, KSEBL is entitled to retain part of the gains on account of achieving loss reduction in excess of target approved. KSEBL was able to achieve T&D loss reduction of 0.34% above the target and the share of gain on this count amounts to Rs.19.44 Cr as detailed in chapter 4. Hon'ble Commission may kindly approve the same as tabulated below:

Table- 5.40 Gain attributable to KSEBL on over achievement of T&D loss reduction target.		
Particulars	Quantum	Unit
Energy sales by KSEBL	22660.93	MU
Energy taken by RGCCPP during non-operative periods	11.47	MU
Total energy	22672.39	MU
Energy input needed at 12.42% loss	25887.64	MU
Energy input needed for 2019-20	25818.69	MU
Energy savings	68.95	MU
Power Purchase cost saved due to over achievement of loss	29.17	Cr.
2/3 of savings	19.44	Cr.

5.44 **Non- Tariff Income and Other income:** Hon'ble Commission approved Rs.618.78 Cr under Non-Tariff income & Other income for the year 2019-20. Actual income earned under this count as per accounts amounted to Rs.797.85 Cr as detailed in Table below.

5.45 It may kindly note that the disclosure in accounts and truing up petition with regard to non-tariff income differ as the revenue from operations are depicted in accounts against revenue from tariff in truing up petition. Therefore, certain components of income disclosed under revenue from operations in accounts amounting to Rs.587.69 Cr are classified under non-tariff income in this petition. Out of Rs.797.85 Cr, remaining Rs.210.16 Cr is disclosed under other income as per Note 28 of audited accounts as detailed below.

Table- 5.41: Non-Tariff Income	
Description	Rs. Cr
Revenue from operations (Note 27 A)	
Reactive energy charges	16.02
Meter rent/ Service line rental	96.95
Recovery from theft/malpractices	7.67
Wheeling charges recoveries	3.65
Miscellaneous charges from consumers	203.41
Subtotal A	327.70
Other operating income under Revenue from operations (Note No. 27 B)	
Rebate received	109.14
Interest from suppliers/contractors	6.80
Income from sale of scrap/Tender form	41.51
Miscellaneous receipts	102.54
Subtotal B	259.99
Other income (Note No.28)	
Interest on staff loans and advances	0.05
Income from loans others	0.09
Interest from banks	9.81
Claw back of grant	200.21
Subtotal C	210.16
Income as per audited accounts considered as Non-Tariff income in True up petition (A+B+C)	797.85

- 5.46 SBU wise break up is furnished in **Appendix 15**. Miscellaneous charges from consumers (Rs. 203.41 Cr) are detailed in **Appendix 16**. Miscellaneous receipts (Rs.102.54 Cr) are detailed in **Appendix 17**. Income from sale of scrap/tender form amounting to Rs.41.51 Cr as detailed in **Appendix 18**.
- 5.47 KSEBL had submitted in truing up petition for 2018-19 that KWA dues taken over by the Government of Kerala, which has been undertaken to settle with interest in 4 annual instalments commencing from 2019-20 onwards, and interest income on this count may be recognized on actual receipt basis. It is respectfully submitted that GoK has released the instalments due for 2019-20 along with the instalment for 20-21 in 2020-21 only and therefore KSEBL may be permitted to recognize the interest income in the truing up for 2020-21.
- 5.48 Income from sale of scrap/tender form amounting to Rs.41.51 Cr includes Rs.0.61 Cr towards sale proceeds of LED bulbs. Further, the cost of LED bulbs amounting to Rs. 0.19 Cr has been accounted under Power purchase account (purchase others). Hon'ble Commission may kindly note that while approving Non-Tariff Income for 2015-16 & 2016-17, Hon Commission was pleased to exclude the LED purchase value from NTI while truing up (Rs. 12.86 Cr and Rs. 22.35 Cr respectively). Similar adjustment was prayed for 2018-19 true up also. Details of income to be trued up on account of LED transaction from 2015-16 onwards are furnished below:

Table- 5.42: Details of income trued up in FY 16 to FY 20						
Particulars	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Sale proceeds of LED bulbs	25.76	45.94	32.66	5.94	0.61	110.91
Cost of LED bulbs	12.9	23.59	41.59	6.65	0.19	84.92
Income sought for trued up	12.86	22.35	-8.93	-0.71	0.42	25.99

5.49 Hon'ble Commission may kindly true up Rs.0.42 Cr in 2019-20 after excluding purchase value.

5.50 In view of the above submission, Hon'ble Commission may kindly approve Rs.551.75 Cr as detailed below:

Table 5.43: Non-tariff income for 2019-20 (Rs. Cr)					
Sl. No	Particulars	SBU G	SBU T	SBU D	Total
1	Non-tariff Income as per Appendix 7	16.30	70.87	710.66	797.85
2	Items sought to be excluded in TU				
3	Claw back of grant-Considered separately	5.44	30.33	164.44	200.21
4	Cost of LED Bulbs booked under Power purchase			0.19	0.19
5	Accounting error under power factor penalty			45.70	45.70
6	Total exclusions (3+4)	5.44	30.33	210.33	246.10
7	NT Income sought for TU 2019-20 (1-5)	10.86	40.54	500.33	551.75

5.51 **Revenue from Tariff:** Annual Statement of Accounts discloses Revenue from operation, which is inclusive of certain items that are considered under non-tariff income in the Regulatory accounts. Segregation of revenue from tariff and NTI for regulatory purpose is furnished below:

Table 5.44: Revenue from tariff for 2019-20 (Rs. Cr)					
Sl No	Particulars	SBU G	SBU T	SBU D	Total
1	Revenue from operation-As per Accounts (Note No. 27) (A) & (B)			14644.44	14644.44
2	Less: Items considered under non-tariff income				
I	RE Charges			16.02	16.02
li	Meter rent			96.95	96.95
lii	Recovery of theft/malpractices			7.67	7.67
lv	Wheeling charge recoveries			3.65	3.65
V	Miscellaneous charges from consumers			203.41	203.41
Vi	Rebate received			109.14	109.14
Vii	Interest Advance to suppliers & contractors			6.80	6.80
Viii	Income from sale of bulb, scrap, Tender form etc			41.51	41.51
ix	Miscellaneous receipts			102.54	102.54
3	Revenue from operation as per accounts considered under NTI- (I to ix)	0.00	0.00	587.69	587.69
4	Revenue from Tariff (C) = (1-3)			14056.75	14056.75
5	Less: Power factor incentive accounted under A&G expenses			102.65	102.65
6	Revenue from Tariff (excluding PFI) as per accounts (4-5)			13954.10	13954.10
7	Add: Accounting error under PFI			45.70	45.70
8= (6+7)	Revenue for truing up purpose			13999.80	13999.80
	Break up				
8	Revenue from sale within the State including fuel surcharge			14037.64	14037.64
9	Revenue from external sale			19.11	19.11
10	Less: Power factor incentive (actual)			56.95	56.95
11	Total (8+9-10)	0.00	0.00	13999.80	13999.80

5.52 Reconciliation of total income as per audited accounts and income considered in Truing up petition is furnished below:

Table 5.45: Reconciliation of Income as per Accounts and True up for 2019-20 (Rs. Cr)			
SI No	Particulars	Amount	Amount
	AS PER AUDITED ACCOUNTS		
1	Revenue from Operation as per Accounts (Note 27)		14644.44
2	Other Income as per Accounts (Note 28)		210.16
3=(1+2)	Total income as per accounts		14854.6
	AS PER TU PETITION		
4	Revenue from tariff & external sale (Table 5.38)		13999.80
5	Non-Tariff Income in TU petition (Table 5.37)		551.75
6= (4+5)	Total revenue for TU		14551.55
7= (3-6)	Difference		303.05
	Break up		
A	Power factor Incentive	102.65	
B	Claw back of Grant	200.21	
C	LED purchase	0.19	303.05

5.53 **Variation between audited accounts and truing up petition:** Loss as per audited accounts for 2019-20 amounted to Rs.269.55 Cr (excluding RoE). Revenue gap as per accounts (inclusive of RoE Rs.489.87 Cr) amounts to Rs.759.42 Cr. The revenue gap sought to be trued up in this petition is Rs.553.10 Cr. The following table summarizes the variation between loss as per audited accounts and TU petition. Detailed information is furnished in **Appendix 19**.

Table 5.46: Comparison of Accounts and TU Petition (Rs Cr)				
Sl.No	Particulars	As per Accounts	TU Petition	Difference
1	Interest & Finance charges	1592.03	2111.23	-519.20
2	Additional contribution to Master Trust	0.00	200.00	-200.00
3	Depreciation	901.92	407.90	494.02
4	O&M Expenses	3893.92	2961.47	932.45
5	Pay revision provision		250.00	-250.00
6	Power purchase & PGCIL charges	8680.00	8616.54	63.46
7	Return on Equity	0.00	489.87	-489.87
8	Others	21.97	21.97	0.00
9	Generation of power	5.71	5.71	0.00
10	Exceptional items	28.60	28.60	0.00
11	Retaining gains out of T&D loss reduction beyond target	0.00	19.44	-19.44
12	Incentive on transmission availability	0.00	9.79	-9.79
13	Amortization and interest	0.00	1.22	-1.22
14	ARR (1 to 12)	15124.15	15123.74	0.41
15	Revenue from tariff	14644.44	14018.91	625.53
16	Non-tariff income	210.16	551.73	-341.57
17	ERC	14854.60	14570.64	283.96
18	Revenue (gap)/Surplus	-269.55	-553.10	283.55

5.54 Detailed explanation with regard to variation under power purchase, revenue from tariff and claim on T&D loss reduction are furnished in **chapter 4** of this petition.

5.55 **Comparison of approval and truing up sought:** The following table summarizes the variation between approval granted by the Hon'ble Commission as per order dated 08.07.2019 and truing up sought for the year 2019-20. Detailed information is furnished in **Appendix 20**.

Table 5.47: Comparison of Approval and TU Petition (Rs Cr)				
Sl.No	Particulars	As per MYT order	TU Petition	Difference
1	Fuel charges for generation	0.00	5.71	-5.71
2	POP & Interstate transmission	8616.94	8616.54	0.40
3	Interest & Finance charges	1865.14	2111.23	-246.09
4	Depreciation	408.32	407.9	0.42
5	O&M Expenses	2991.45	2961.47	29.98
6	Pay revision provision	0.00	250.00	-250.00
7	Other expenses	0.00	50.57	-50.57
8	Retaining gains out of T&D loss reduction beyond target	0.00	19.44	-19.44
9	Incentive on transmission availability	0.00	9.79	-9.79
10	Additional contribution to Master Trust	200.00	200.00	0.00
11	Return on Equity	489.87	489.87	0.00
12	Amortization of past gap	1000.00	0.00	1000.00
13	Amortization and interest	0.00	1.22	-1.22
14	ARR (1 to 13)	15571.72	15123.74	447.98
15	Revenue from tariff	14152.38	14018.91	133.47
16	Non-tariff income	618.78	551.73	67.05
17	ERC	14771.16	14570.64	200.52
18	Revenue (gap)/Surplus	-800.56	-553.10	-247.46

5.56 The Next chapter summarises the expenses and revenues sought for true-up for the year and determines the Net Revenue Gap for the year.

APPENDICES

Appendix 1: Details of capital liabilities (2019-20) (Rs Cr) KSEBL									
SL NO	NAME OF THE FINANCIAL INSTITUTION	Opening 01/04/2019	Additions during the Year	Repayment during the year	Closing – 31/03/2020	CFL	Closing – 31/03/2020	Interest %	Interest Amount
	A) SECURED LOANS								
1	Loan from REC-Distribution - 23 Circle Scheme	640.57	522.94	99.63	1063.87	124.17	939.70	9.75-10.5%	95.80
2	Loan from REC- Distribution - Meter Scheme	42.32		13.69	28.63	14.94	13.69	9.75%	3.44
3	Loan from REC-Thottiyar Gene. Scheme	53.73	32.55	4.71	81.58	10.12	71.45	11.4-11.65%	6.45
4	Loan from REC - Peringalkuthu. Scheme	0.00	72.95		72.95		72.95		6.05
5	Loan from REC – Bhoothathankettu Scheme	0.00	114.70		114.70		114.70		9.48
6	Loan from R E C – RGGVY	14.52		1.96	12.55	1.96	10.59	10-11%	1.49
7	Loan from SOUTH INDIAN BANK-Barapole SHEP	81.00		6.00	74.99	6.00	68.99	10%	7.83
8	Loan from REC R-APDRP PART-B	562.87		59.73	503.13	65.16	437.97	9.75-10.5%	52.41
9	Loan from REC for the DDG Scheme	0.14			0.14		0.14	10.50%	0.02
10	Loan from RIDF of NABARD Banasurasagar SPVP	0.45			0.45		0.45	6.25%	0.03
11	Loan from RIDF of NABARD Upper Kallar SHEP	3.61			3.61		3.61	6.25%	0.23
12	Loan from PFC R-APDRP	192.41	33.12		225.52		225.52	9%	40.44
13	Loan from PFC R-APDRP Part B	247.01		12.12	234.88	46.50	188.39	9%	8.20
14	Loan from PFC GEL Kakkayam	20.58		1.37	19.21	1.37	17.83	9.75-10.5	3.65
15	Loan from PFC GEL Perumthenaruvi	37.17		2.56	34.61	2.56	32.05	9.75-10	1.89
16	Loan from REC-TRAN-Group I	69.65	23.15	7.82	84.97	7.51	77.46	10-10.5%	8.58
17	Loan from REC-TRAN.Kattakkada -Pothencode Scheme	100.32		13.14	87.19	14.33	72.85	11.50%	10.69
18	Loan from SBI		950.00	31.68	918.32	95.04	823.28		24.78
19	Special Loan Assistance from PFC	1333.13		91.94	1241.19	91.94	1,149.25	9.08%	117.36
20	Special Loan Assistance from REC	1688.85	250.00	132.40	1806.45	149.50	1,656.95	9.08%	166.67
	TOTAL	5088.31	1999.40	478.77	6608.94	631.11	5977.83		565.48
	B) Unsecured Loan								
1	Loans - Short Term Loan from State Bank of India (SBI)		300.00	300.00	0.00		-		
2	Loans - Short term loan from Vijaya Bank	400.00	400.00	800.00	0.00		-	8.70%	23.37
3	Loans - Short term loan from Bank of Baroda		800.00	400.00	400.00		400.00		8.45
	Total	400.00	1,500.00	1,500.00	400.00		400.00		31.83
	SEC+UNSEC	5,488.31	3,499.40	1,978.77	7,008.94	631.11	6,377.83	9.56	597.31

Appendix 1A : Details of capital liabilities (2019-20)-SBU G

SL NO	NAME OF THE FINANCIAL INSTITUTION	Net loan-Opening – 01/04/2019	Add: Drawal(s) during the Year	Less: Repayment (s) of Loans during the year	Net loan – Closing – 31/03/2020	CFL	Net loan – Closing – 31/03/2020	Rate of Interest on Loan on annual basis	Interest on loan
A	SECURED LOANS TERM LOANS								
	Loan from REC-Thottiyar Gene. Scheme	53.73	32.55	4.71	81.58	10.12	71.45	11.4-11.65%	6.45
	Special Loan Assistance from REC	360.14	27.78	26.49	361.42	29.91	331.51	0.0908	33.35
	Loan from REC - Peringalkuthu. Scheme		72.95	0.00	72.95	0.00	72.95	0%	6.05
	Loan from REC – Bhoothathankettu Scheme		114.70	0.00	114.70	0.00	114.70	0%	9.48
	Loan from SOUTH INDIAN BANK-Barapole SHEP	81.00	0.00	6.00	74.99	6.00	68.99	10%	7.83
	Loan from RIDF of NABARD Banasurasagar SPVP	0.45	0.00	0.00	0.45	0.00	0.45	6%	0.03
	Loan from RIDF of NABARD Upper Kallar SHEP	3.61	0.00	0.00	3.61	0.00	3.61	6%	0.23
	Loan from SBI		190.07	6.34	183.73	19.02	164.72	0%	4.96
	Special Loan Assistance from PFC	284.28	0.00	35.95	248.33	18.39	229.93	9%	23.48
	Loan from PFC GEL Kakkayam	20.58	0.00	1.37	19.21	1.37	17.83	9.75-10.5	3.65
	Loan from PFC GEL Perumthenaruvi	37.17	0.00	2.56	34.61	2.56	32.05	9.75-10	1.89
	SUB-TOTAL	840.96	438.05	83.43	1195.58	87.38	1108.20		97.40
B	UNSECURED LOANS TERM LOANS								
	From Banks								
	Loans - Short Term Loan from State Bank of India (SBI)		60.02	60.02	0.00	0.00	0.00	0.00	0.00
	Loans - Short term loan from Vijaya Bank	85.30	74.76	160.06	0.00	0.00	0.00	0.09	4.68
	Loans - Short term loan from Bank of Baroda		160.06	80.03	80.03	0.00	80.03	0.00	1.69
	SUB-TOTAL	85.30	294.84	300.11	80.03	0.00	80.03		6.37
C	Long term & Short-term loans (A+B)	926.26	732.89	383.54	1275.61	87.38	1188.23	9.43	103.77

Appendix 1B: Details of capital liabilities (2019-20) SBU T

NAME OF THE FINANCIAL INSTITUTION	Net loan-Opening – 01/04/2019	Add: Drawal(s) during the Year	Less: Repayment (s) of Loans during the year	Net loan – Closing – 31/03/2020	CFL	Net loan – Closing – 31/03/2020	Rate of Interest on Loan on annual basis	Interest on loan
SECURED LOANS TERM LOANS								
Loan from REC-TRAN-Group I	69.65	23.15	7.82	84.97	7.51	77.46	10-10.5%	8.58
Loan from REC-TRAN.Kattakkada -Pothencode Scheme	100.32	0.00	13.14	87.19	14.33	72.85	11.5%	10.69
Loan from SBI		286.74	9.56	277.18	28.69	248.49	0	7.48
Special Loan Assistance from PFC	399.58	2.80	27.75	374.63	27.75	346.88	9%	35.42
Special Loan Assistance from REC	506.21	79.00	39.96	545.25	45.12	500.13	0.0908	50.31
SUB-TOTAL	1075.77	391.69	98.24	1369.22	123.40	1245.82		112.48
UNSECURED LOANS TERM LOANS								
Loans - Short Term Loan from State Bank of India (SBI)		90.55	90.55	0.00	0.00	0.00	0	0.00
Loans - Short term loan from Vijaya Bank	119.89	121.57	241.47	0.00	0.00	0.00	0.087	7.05
Loans - Short term loan from Bank of Baroda		241.47	120.73	120.73	0.00	120.73		2.55
SUB-TOTAL	119.89	453.59	452.75	120.73		120.73		9.61
TOTAL	1195.66	845.28	550.99	1489.95		1366.55	9.09	122.09

Appendix 1C: Details of capital liabilities (2019-20) SBU D

SL NO	NAME OF THE FINANCIAL INSTITUTION	Net loan-Opening – 01/04/2017	Add: Drawal(s) during the Year	Less: Repayment (s) of Loans during the year	Net loan – Closing – 31/03/2020	CFL	Net loan – Closing – 31/03/2020	Rate of Interest on Loan on annual basis	Interest on loan
A	SECURED LOANS TERM LOANS								
1	Loan from REC for the DDG Scheme	0.14	0.00	0.00	0.14	0.00	0.14	11%	0.02
2	Loan from R E C - RGGVY	14.52	0.00	1.96	12.55	1.96	10.59	10-11%	1.49
3	Loan from REC- Distribution - Meter Scheme	42.32	0.00	13.69	28.63	14.94	13.69	10%	3.44
4	Loan from PFC R-APDRP	192.41	33.12	0.00	225.52	0.00	225.52	9%	40.44
5	Loan from PFC R-APDRP Part B	247.01	0.00	12.12	234.88	46.50	188.39	9%	8.20
6	Loan from SBI		473.19	15.78	457.41	47.34	410.07	0%	12.34
7	Loan from REC R-APDRP PART-B	562.87	0.00	59.73	503.13	65.16	437.97	9.75-10.5%	52.41
8	Special Loan Assistance from PFC	649.26	14.76	45.79	618.22	45.79	572.43	9%	58.46
9	Special Loan Assistance from REC	822.51	143.22	65.95	899.78	74.46	825.31	9%	83.02
10	Loan from REC-Distribution - 23 Circle Scheme	640.57	522.94	99.63	1063.87	124.17	939.70	9.75-10.5%	95.80
	SUB-TOTAL	3171.58	1187.22	314.67	4044.14	420.33	3623.81		355.60
B	UNSECURED LOANS TERM LOANS								
	From Banks								
1	Loans - Short Term Loan from State Bank of India (SBI)		149.43	149.43	0.00	0.00	0.00	0%	0.00
2	Loans - Short term loan from Vijaya Bank	194.81	203.66	398.47	0.00	0.00	0.00	9%	11.64
3	Loans - Short term loan from Bank of Baroda		398.47	199.24	199.24	0.00	199.24	0%	4.21
	SUB-TOTAL	194.81	751.57	747.14	199.24		199.24		15.85
	TOTAL	3366.39	1938.79	1061.80	4243.38		3823.05	9.76	371.45

Appendix-2: Details of the short-term loans availed for meeting capital liabilities (Rs Cr)											
No	Short term loans	Balance as at 31.03.13	Balance as at 31.03.14	Balance as at 31.03.15	Balance as at 31.03.16	Balance as at 31.03.17	Received in 2017-18	Repaid in 2017-18	Balance as at 31.03.18	Balance as at 31.03.19	Balance as at 31.03.20
1	State Bank Of India	300.00	300.00	500.00	750.00	500.00	1000.00	750.00	750.00		
2	Vijaya Bank	199.97	200.00	200.00	200.00	200.00	400.00	600.00	0.00	400.00	
3	Bank of India	0.00	199.98	350.00	450.00	387.50	1362.50	1550.07	199.93		
4	South Indian Bank	350.00	400.00	100.00	100.00	200.00	300.00	500.00	0.00		
5	Syndicate Bank	0.00	0.00	100.00	100.00	0.00			0.00		
6	Dhanalekshmi Bank	0.00	100.00	0.00					0.00		
7	Canara Bank						500.00	500.00	0.00		
8	REC - STL	150.00					500.00	0.00	500.00		
9	PFC - STL - 1	250.00							0.00		
10	PFC - STL - 2	250.00							0.00		
11	KSPIFC - STL	26.00	26.00	0.00					0.00		
12	Tamilnad Mercantile Bank			100.00	0.00				0.00		
13	Indian Overseas Bank		300.00	650.00	0.00				0.00		
14	Union Bank of India						401.47	401.47	0.00		
15	Andhra Bank				300.00	600.00	300.00	900.00	0.00		
16	Bank of Baroda										400.00
	Total	1525.97	1525.98	2000.00	1900.00	1887.50	4763.97	5201.54	1449.93	400.00	400.00

Appendix 3- Details of short-term loan Interest from 2012-13 to 2019-20.

No	Bank	2012-13		2013-14		2014-15		2015-16		2016-17		2017-18		2018-19		2019-20	
		Rate (%)	Amount (Rs.Cr)	Rate (%)	Amount (Rs.Cr)	Rate (%)	Amount (Rs.Cr)	Rate (%)	Amount (Rs.Cr)	Rate (%)	Amount (Rs.Cr)	Rate (%)	Amount (Rs.Cr)	Rate (%)	Amount (Rs.Cr)	Rate (%)	Amount (Rs.Cr)
1	SBI	10.40	30.76	10.15	30.96	10.15	44.03			9.05	69.45	8.00	56.69	8.42	39.08		
2	SBT	10.75	10.00					9.95	43.76								
3	Canara Bank	10.75	1.12	10.75	3.61			9.65	94.63								
4	Federal Bank	10.75	21.47					9.63	41.70								
5	Vijaya Bank	10.65	20.66	10.25	20.01	10.25	20.13	9.65	26.56	8.65	18.85	8.15	14.50	8.70	24.73	8.70	23.37
6	South Indian Bank	11.00	26.44	10.50	30.12	10.50	19.73			9.00	17.92	8.25	13.46				
7	REC STL	13.00	4.63	13.00	20.61							8.20	5.05	8.20	11.91		
8	PFC STL	12.50	11.16	12.50	42.52												
9	PFC STL	12.75		12.75													
10	KSPIFC STL	11.50	1.33	11.50	2.99	11.50	1.16										
11	Bank of India			10.50	9.07	10.50	43.07			8.75	44.49	8.15	25.02	8.15	0.25		
12	IOB			10.25	2.16	10.25	48.54										
13	Dhanalekshmi Bank			11.50	0.82	11.50	4.09										
14	Syndicate Bank					10.25	10.09			9.70	2.39						
15	TMB					10.75	5.60	10.40	0.17								
16	UBI							9.65	19.18								
17	Andhra Bank									8.85	38.97	8.85	19.05				
18	KGB							9.65	3.43								
19	Bank of Baroda															8.55	8.45
	Total		127.57		162.87		196.44		229.43		38.97		133.77		75.97		31.82

Appendix 4: PROJECT WISE ANALYSIS OF CAPITAL EXPENDITURE FOR THE YEAR ENDED 31/03/2020 (Rs. Cr)

Project Code	Brief Description of Project	Cost as on 01/04/2019	Cost Incurred during the year	Capitalised during the year	Cost as on 31/03/2020
A	GENERATION				
14.02	Idamalayar H E Project	0	0.04	0.02	0.03
14.03	Solar Power Project.	11.02	11.65	14.72	7.95
14.07	Kakkad Scheme	0.35	1.95	2.3	0
14.08	LNG based Thermal power scheme	2.78	0		2.78
14.09	Renovation of Sengulam Pump House	13.02	4.75		17.76
14.1	Kuttiadi Augmentation Scheme	0	1.11	1.11	0
14.11	Kallada Low Head Scheme	0.02	0.03	0.03	0.02
14.12	Bhoothathankettu Small H.E Scheme	178.58	30.57	7.32	201.83
14.14	Mananthavady Multi-Purpose Scheme	2.69	0		2.69
14.15	Olikkal Small H.E Scheme	6.37	0.55	2.75	4.17
14.16	Lower Periyar Tunnel Works - Other than W B Aided Works	0	1.04	1.04	0
14.19	Uppen sengulam Hp	6.65	0.99		7.64
14.2	Western Kallar SHP	0.03	0		0.04
14.21	Malampuzha Power Gen. Scheme		-0.01	-0.01	0
14.24	Peppara Low Head Scheme		0.34	0.34	0
14.25	RMU SHOLAYAR	46.18	33.73	0.93	78.98
14.27	Chimoney Small H E Scheme	0	0.06	0.06	0
14.29	Kuttiar Diversion Scheme	0	0.11		0.11
14.3	Wind Generator, Kottamala, Palakkad		0.01	0.01	0
14.32	Poringalkuthu Left Bank H E Project Extension Scheme	0	1.89	1.89	0
14.33	Automatic Demand Management scheme (ADMS)	0.1	2.91		3.01
14.35			0.01	0.01	0
14.36	Anakkayam Small HE Scheme	11.06	0.95	0.16	11.85
14.38	Wanchiyam Small HE Scheme	0.02	0		0.02
14.39	Chathankottu Nada Small HE Scheme	32.35	13.19	0.35	45.19
14.4	DRIP Project	89.23	12.97	10.89	91.32
14.41	Renovation Division for Idukki H.E.P.	29.7	23.2	9.72	43.17
14.42	Valanthode SHEP	2.83	1.15		3.98
14.44	Sengulam Augmentation Scheme	57.3	8.06	0.43	64.93
14.45	Athirapally H E Project	14.99	0.64	0.07	15.56

14.46	Chembukadavu Mini HEP Stage II		0.29	0.29	0
14.48	Urumi Mini H E Project II	0	0.09	0.09	0
14.49	Poovaramthode Small H.E Scheme	8.24	0.61	2.84	6.01
14.61	Expenditure due to Natural Calamity	0.4	7.05	2.65	4.8
14.64	MARMALA SHEP	1.76	0.07	0.03	1.8
14.65	Kuttiadi Small Hydro Electric Project	38.23	1.37	39.59	0
14.66	Upper Kallar HE Scheme	16.13	9.17		25.3
14.68	Peechad Small Hydro Electric project	0.08	0		0.08
14.69	RMU-Poringalkuthu	11.86	0.94	12.8	0
14.7	Vakkalar Hydro Electric Project	0.06	0		0.06
14.71	Peruvannamuzhi Small Hydro Electric Project	11.27	10.84	0.84	21.28
14.72	Chembukadavu III Small H.E Scheme	4.42	1.54	0.08	5.88
14.74	Chinnar HES	10.37	26.38	0.07	36.68
14.75	Pazhassi Sagar Small H.E Scheme	11.1	5.23	1.27	15.05
14.77	Pallivasal Extension Scheme	279.5	61.6	0.03	341.06
14.78	Barapole S.H. Scheme	0	0.38	0.38	0
14.79	Mangulam Hydroelectric Scheme	27.79	9.53	0.01	37.31
14.8	Achencoil SHEP	4.57	0		4.57
14.84	Maripuzha SHEP (2 X 3 MW)	0.17	0.04	0	0.21
14.85	Bhramapuram D P P	0	0.21	0.21	0
14.86	120 MW DGPP Kozhikode	0	0.4	0.39	0
14.88	Kuttiady Addl. Extention Scheme	16.46	5.69		22.15
14.89	LADRUM SHEP	1.79	0.08	0.03	1.84
14.9	CWIP - General	86.67	121.99	2.44	206.22
14.92	RMU of Sabarigiri HE Project	0	-0.03	-0.03	0
14.95	Perunthenaruvi- SHEP	0	0.29	0.16	0.13
14.96	Thottiyar HES	101.44	21.11	0.03	122.53
14.97	CWIP - Closed Projects	0.07	3.96	2.24	1.79
14.98	Poringalkuthu Addl.Extn. Scheme	109.74	17.61	0.64	126.7
	SUB TOTAL (A)	1,247.39	458.35	121.24	1,584.50
B	TRANSMISSION LINES & SUB STATIONS				
14.01	Electrical Transmission Schemes	421.45	405.03	318.03	508.45
14.18	Power System Development Fund	93.69	228.08	18.74	303.03
14.22	SCADA Upgradation Project	0.42	0	0.42	0
14.56	Load Despatch & Communication Schemes	3.84	7.36	8.47	2.73
14.61	Expenditure due to Natural Calamity	0.4	0.42	0.69	0.13

14.9	CWIP - General	81.68	48.78	26.69	103.77
14.94	TRANSGRID 2.0 PROJECT	34.22	209.7	5.58	238.34
	SUB TOTAL (B)	635.71	899.36	378.62	1,156.44
C	DISTRIBUTION				
14.05	Deen Dayal Upadhyay Gram Jyothi Yojana (DDU GJY)	67.23	149.67	213.11	3.79
14.13	Integrated Power Development Scheme (IPDS)	56.7	358.08	365.88	48.9
14.5	Rural Electrification Scheme	0.04	0.33	0.32	0.04
14.51	Distribution Line Extension	1.33	130.59	130.93	0.99
14.52	Distribution Service Connection	3.95	148.7	147.79	4.87
14.53	Distribution System Improvement	9.22	408.15	399.68	17.69
14.54	Electrification of Harijan Colonies	0	0.29	0.29	0
14.55	Electrification of Tribal Colonies	0	0.4	0.4	0
14.57	Punja Package	0.08	0.39	0.35	0.12
14.58	System Improvement in other areas	0.26	4.89	5.08	0.07
14.59	Distbn. Capacitor Installation Scheme	0	0.99	0	0.99
14.6	Street Lights	2.13	41.96	41.49	2.59
14.61	Expenditure due to Natural Calamity	0.06	8.86	8.88	0.05
14.62	RGGVY-Village electrification Infrastructure	3.13	-0.25	2.88	0
14.63	RGGVY-For effecting BPL Service Connection	0.24	0.04	0.27	0
14.67	Part B Projects of R-APDRP	41.14	89.14	114.41	15.87
14.81	MLA Asset Development Fund Scheme (MLA ADF)	0	0.13	0.13	0
14.82	R- APDRP Scheme	397.68	66.31	56.07	407.93
14.9	CWIP - General	523.58	133.81	153.48	503.91
14.91	Innovation fund	0.11	0.54	0.63	0.02
14.99	Projects not Identified	1.37	1.62	1.70	1.29
	SUB TOTAL (C)	1,108.24	1,544.65	1,643.78	1,009.12
	GRAND TOTAL (A+B+C)	2,991.34	2,902.36	2,143.64	3,750.06

Appendix 5 SBU G - Break up of Part Capitalisation of Project Cost -2019-20

10-Group Break-up (in Rs.Cr)											Total (in Rs.Cr)
Name of Project	A/c Code	Land	Buildings	Hydraulic Works	Other Civil Works	Plant and Machinery	Lines, Cable network, etc.	Vehicles	Furniture & Fictures	Office Equipment	
Olikkal Small H.E Scheme	14.15	2.75									2.75
Sengulam Augmentation Scheme	14.44			0.41	0.02						0.43
Poovaramthode Small H.E Scheme	14.49	2.84									2.84
MARMALA SHEP	14.64		0.03								0.03
Peruvannamuzhi Small Hydro Electric Project	14.71	0.82								0.02	0.84
Chembukadavu III Small H.E Scheme	14.72	0.08									0.08
Chinnar HES	14.74			0.07							0.07
Pazhassi Sagar Small H.E Scheme	14.75	1.27									1.27
Pallivasal Extension Scheme	14.77									0.03	0.03
Mangulam Hydroelectric Scheme	14.79									0.01	0.01
LADRUM SHEP	14.89	0.03									0.03
Thottiyar HES	14.96			0.03							0.03
Poringalkuthu Addl.Extn. Scheme	14.98			0.64							0.64
TOTAL		7.79	0.03	1.15	0.02	0.00	0.00	0.00	0.00	0.06	9.05

Appendix 6 Account code wise break up of capitalization under SBU G during 2019-20 (in Rs.Cr)											
A Code	Name of Project	Land	Buildings	Hydraulic Works	Other Civil Works	Plant and Machinery	Lines, Cable network, etc.	Vehicles	Furniture & Fictures	Office Equipments	Total
14.02						0.02					0.02
14.03	Solar Power Project.					14.71					14.71
14.07	Kakkad Scheme		0.33		0.05	1.92					2.30
14.10	Kuttiadi Augmentation Scheme	1.04		0.07							1.11
14.11	Kallada Low Head Scheme					0.03					0.03
14.12	Bhoothathankettu Small H.E Scheme						7.32				7.32
14.15	Olikkal Small H.E Scheme	2.75									2.75
14.16	Lower Periyar Tunnel Works - Other than W B Aided Works		0.05	0.03	0.12	0.80	0.04				1.04
14.24	Peppara Low Head Scheme					0.34					0.34
14.25	RMU SHOLAYAR					0.88	0.05				0.93
14.27	Chimoney Small H E Scheme					0.06					0.06
14.30	Wind Generator, Kottamala, Palakkad		0.01								0.01
14.32	Poringalkuthu Left Bank H E Project Extension Scheme		0.11		0.02	1.74				0.02	1.89
14.36	Anakkayam Small HE Scheme			0.10	0.06						0.16
14.39	Chathankottu Nada Small HE Scheme	0.35									0.35
14.40	DRIP Project		10.68							0.21	10.89
14.41	Renovation Division for Idukki H.E.P.					9.25	0.47				9.72
14.44	Sengulam Augmentation Scheme			0.41	0.02						0.43
14.45	Athirapally H E Project		0.04						0.03		0.07
14.46	Chembukadavu Mini HEP Stage II					0.23	0.06				0.29
14.48	Urumi Mini H E Project II					0.09					0.09
14.49	Poovaramthode Small H.E Scheme	2.84									2.84
14.61	Expenditure due to Natural Calamity				0.22	0.81	1.62				2.65
14.64	MARMALA SHEP		0.03								0.03
14.65	Kuttiadi Small Hydro Electric Project	2.08		26.05	0.30	11.10	0.06				39.59
14.69	RMU-Porinnalkuthu					12.8					12.80
14.71	Peruvannamuzhi Small Hydro Electric Project	0.82								0.02	0.84
14.72	Chembukadavu III Small H.E Scheme	0.08									0.08
14.74	Chinnar HES			0.07							0.07
14.75	Pazhassi Sagar Small H.E Scheme	1.27									1.27
14.77	Pallivasal Extension Scheme									0.03	0.03
14.78	Barapole S.H. Scheme	0.09		0.08	0.21						0.38
14.79	Mangulam Hydroelectric Scheme									0.01	0.01
14.85	Bhramapuram D P P		0.02		0.07	0.1				0.02	0.21
14.86	120 MW DGPP Kozhikode		0.01			0.36				0.02	0.39

14.89	LADRUM SHEP	0.03													0.03
14.90	CWIP - General							1.8	0.64						2.44
14.95	Perunthenaruvi- SHE scheme					0.16									0.16
14.96	Thottiyar HES				0.03										0.03
14.97	CWIP - Closed Projects		0.01	0.07				0.94	1.22						2.24
14.98	Poringalkuthu Addl.Extn. Scheme				0.64										0.64
	TOTAL	11.35	11.29	27.55	1.23	57.98	11.48	0.00	0.03	0.33	121.24				

Appendix 7 SBU T - DETAILS OF PART CAPITALISATION - FY 2019-20																
SL No.	Name of Project	Break-up of Project Cost									Total (in Rs. Cr)	Components of Cost				
		10-Group Break-up (in Rs. Cr)										Materials	Labour	Expenses Capitalised	Others if any (Tree Cutting Compnsth)	
		Land	Buildings	Hydraulic Works	Other Civil Works	Plant and Machinery	Lines, Cable Network, etc	Vehicles	Furniture & Fictures	Office Equipments						
1	Upgradation of 110kv melattur				0.03	0.05						0.08		0.08		
2	Upgradation of 110kv S/S,Manjeri				0.14	0.51	0.01					0.66	0.06	0.10	0.50	
3	Upgradation 110kv s/S Perinthalmanna		0.05			0.60	0.07					0.72	0.05	0.60		0.07
4	Malapparamba-Ramapuram DC line to MC line						1.61					1.61			1.61	
5	Nilambur -Edakkara using ACSR dog conductor						0.98					0.98			0.98	
6	Capacity enhancement110kv Tirur					0.17						0.17	0.08	0.09		
7	Traction s/s Tirur					0.06						0.06		0.06		
8	Malappuram-Trur SC line to DCline						1.06					1.06			1.06	
9	Upgradation 66 kv s/s Nilambur				0.18	0.28						0.46			0.46	
10	33 kv Pookottumpadam					0.07	0.27					0.34		0.27	0.07	
11	Nilambur-Edakkara line						1.35					1.35			1.35	
12	33 kv s/s,Makkaraparamba					0.01						0.01			0.01	

13	Adyanpara-pothukallu 33kv line						0.91				0.91		0.91		
14	Kuttippuram-vairamcode 33kv dc line						0.01				0.01				0.01
15	110 KV S/S PARAPPANANGADI				0.02	0.68	0.11		0.01		0.82			0.82	
16	220 KV MALAPARAMBA					0.04					0.04			0.04	
17	Construction of 33 kV S/s at Marayoor	0.00	0.66			0.17				0.00	0.83	0.00	0.44	0.39	
18	Construction of 110KV S/s at Murickassery	0.00	0.00			0.01				0.00	0.02	0.00	0.00	0.01	
19	110 kV GIS Substation Thodupuzha	0.00									0.00		0.00	0.00	
20	Upgradation of 66 kV DC line from Karimanl feeder to Perumbavoor Sub station						0.56				0.56		0.00	0.56	
21	Upgradation of Thodupuzha – Koothattukulam 66 kV feeder line						0.02				0.02		0.02		
22	Construction of 66 kV line from Western Kallar to Loc. 29 of Pallivasal Kothamangalam 66KV feeder						0.01				0.01		0.01		
23	110 kV SS Pattambi	0.28									0.28			0.28	
24	110 KV SS Vennakkara		0.03								0.03		0.03		
25	110 KV SS Malampuzha					0.26					0.26		0.26		
26	TransGrid						18.86				18.86			18.86	
TOTAL		0.28	0.74	0.00	0.37	2.91	25.83	0.00	0.01	0.01	30.15	0.20	2.88	27.00	0.08

Appendix 8 TRANSMISSION SBU -DETAILS OF PART CAPITALISATION OF PROJECTS FOR THE FY 2016-17 COMMISSIONED DURING 2019-20

Break-up of Project Cost

Name of Project	10-Group Break-up (in Rs. Cr)									Total	Components of Cost				COD	19-20
	Land	Buildings	Hydraulic Works	Other Civil Works	Plant and Machinery	Lines, Cable Network, etc	Vehicles	Furniture & Fictures	Office Equipments		Components of Cost					
Nallalam 220kV SS - Capacity enhancement					8.28	0				8.29	7.36	0.10	0.83		14.01.20	8.29
33kV Substation, Olavakkode	0.16									0.16				0.16	12.04.19	0.16
Up-gradation of 66kV Substation to 110kV Substation, Nedumpoyil		0.16								0.16		0.16			30.04.19	0.16
Construction of Substation & lines for Indian Coast Guard Academy				0.02	1.16					1.18	1.16	0.02			10.08.19	1.18
T C Section, Chemperi - Up-gradation of 66kV Substation to 110kV, Sreekandapuram				0		0.03				0.03		0.03			11.07.19	0.03
Con. Of 33kV S/s Vandanmedu				0.01						0.01		0.01			13.01.20	0.01
Construction 66kV Substation at Enathu in 110kV Standards	1.04			0.34						1.38			1.38		26.06.20	1.38
	1.2	0.16	0	0.37	9.44	0.03	0	0	0	11.21	8.52	0.32	2.21	0.16		11.21

Appendix 9 TRANSMISSION SBU - DETAILS OF PART CAPITALISATION OF PROJECTS FOR THE FY 2017-18 COMMISSIONED DURING 2019-20

Break-up of Project Cost

Name of Project	10-Group Break-up (in Rs. Cr)									Total (in Rs. Cr)	Components of Cost				COD	Commissioned during 2019-20
	Land	Buildings	Hydraulic Works	Other Civil Works	Plant and Machinery	Lines, Cable Network, etc	Vehicles	Furniture & Factures	Office Equipments		Materials	Labour	Expenses Capitalized	Others if any		
220kV SS Nallalm-Capacity enhancement					2.4					2.4	2.34	0.07			14/01/20	2.4
Up-gradation of 66kV Substation to 110kV Substation, Nedumpoyil		0.41		0.16	0.04					0.61		0.61			30.04.19	0.61
33kV Substation, Rajapuram		0.19		0.11						0.3		0.3			31.10.19	0.3
Construction of 33kV Substation & lines for Indian Coast Guard Academy					0.13	0.79				0.92	0.79	0.13			10.08.18	0.92
Up-gradation of 66kV Substation to 110kV Substation, Sreekandapuram						0.34				0.34		0.34			11.07.19	0.34
Conversion of 110KVSC to DC Malappuram Tirur Line				0.04		0.01				0.05		0.04	0.01		31.07.19	0.05
Construction of 110kV S/S Eramallor	2.43									2.43				2.43	20.06.19	2.43
Construction 66kV Substation at Enathu in 110kV Standards					0.4					0.4				0.4	26.06.19	0.4
Construction of 11.044km 66kV SC OH Line from Adoor to Enath in 110kV Standards						1.1				1.1		0.03		1.07	26.06.19	1.1
TOTAL	2.43	0.6	0	0.31	2.97	2.24	0	0	0	8.55	3.13	1.52	0.01	3.9		8.55

Appendix 10: SBU T - DETAILS OF PART CAPITALISATION - FY 2018-19 -Capitalized during 2019-20 (Rs. Cr)																
Name of Project/Work	Break-up of Project Cost										Total	Components of Cost				COD
	10-Group Break-up (in Rs. Cr)											Materials	Labour	Expenses Capitalised	Others if any	
	Land	Buildings	Hydraulic Works	Other Civil Works	Plant and Machinery	Lines, Cable Network, etc	Vehicles	Furniture & Fictures	Office Equipments							
33 KV SS Olavakkode																
Construction of Earth mat				0.06							0.06	0.030	0.030		4/2019	0.060
Construction of plinth for container station & first transformer				0.05							0.05		0.050		4/2019	0.050
Construction of second Transformer plinth				0.05							0.05		0.050		4/2019	0.050
Erection work of additional A Pole for terminating ABC						0.01					0.01	0.010			4/2019	0.010
Laying 33 KV 3*300mm XLPE cable						0.04					0.04	0.007	0.030		4/2019	0.040
Construction of 33KV S/s at Vandanmade																
Construction of retaining wall and compound at 33 Kv S/s Vandanmade	0.3										0.301		0.279	0.022	9/2019	0.301
Construction of control room building at 33 kV S/s Vandanmade		0.479									0.479		0.407	0.073	9/2019	0.479
Strengthening of approzch road at 33 Kv S/s Vandanmade				0.005							0.005		0.005		9/2019	0.005
Employee cost Capitalisation					0.26						0.26			0.260	9/2019	0.260
Construction of 33 Kc SC line from Vandanmade to Nedumkandom																
Employee cost Capitalisation						0.156					0.156			0.156	9/2019	0.156
Upgradation of 13.25kms of Kothamangalam- Bhoothathankettu portion of existing Idamalar- Kothamangalam 66Kv Sc line to 110Kv DC line using ACSR wolf conductor						0.26					0.26			0.260	9/2019	0.260
Construction of 11.044 km 66kv line in 110kv Dc towers and stringing single circuit ACSR wolf conductor				1.106							1.106			1.106	03/2020	1.106

from 66kvS/s Adoor to Enathu																
Upgradation of 66kvS/s Adoor to 110kv- site levelling -construction of retaining wall and allied works for110kv feeder bays (CC 1st &Part)				0.164						0.164			0.164	03/2020	0.164	
Equipment erection, Bus and earth wirestringing andstructure andequipment earthing at66kv S/s Enathu,					0.048					0.048			0.048	03/2020	0.048	
Upgradation of perinthalmanna s/s				0.66	1	2.85			0	4.51	1.750	2.620	0.140	4/2019	4.510	
Capacity enhancement 33kv s/s,Thazhekode					0.007					0.007		0.007		12/2019	0.007	
Upgradation of manjeri 110kv s/s	0.23	0.08	1.8	0.18	1.9	2.21				6.4	1.640	1.110	3.650	7/2019	6.400	
Kizhissery -Edavanna SC Line toDC Line						0.17				0.17		0.170		17.2.20	0.170	
Santhinagar- Thatekkadu 33kv line						0.05				0.05		0.050		4/2019	0.050	
Malappuram-Tirur110kvSC line to DC						0.38				0.38			0.380	7/2019	0.380	
Chettyarmadu-Parappanangadi 110kv DC line						1.1				1.1			1.100	12/2019	1.100	
KUTTIPPURAM						0.02				0.02			0.020	7/2019	0.020	
VAIRANKODE LINE																
110 KV S/S MELATTUR RAMAPURAM-MELATTUR LINE 110 KV DC LINE TO MC						0.01				0.01			0.010	10/2019	0.010	
33KV S/S POOKKOTTUMPADAM- CONSTRUCTION OF EQUIPMENT FOUNDATIO					0.01					0.01		0.010		10/2019	0.010	
TC NILAMBUR						0.5				0.5			0.500	3/2020	0.500	
MPM -CONSTRUCTION OF FOUNDATION FOR PROVIDING FEEDER EQUIPMENT FOR PROPOSE MALAPPURAM-MANJERI LINE					0.14					0.14	0.000	0.140		1/2020	0.140	
TOTAL	0.53	0.56	1.8	2.275	3.365	7.76	0	0	0	16.29	3.44	4.96	6.38	1.51	16.29	

Appendix 11 SBU T- PROJECT CODE WISE ASSET ADDITION DURING 2019-20

14.01 - TRANSMISSION SCHEMES

ARU	SUBSTATION/PROJECT	Land(1)	Buildings(2)	Hydraulic Works(3)	Other Civil Works(4)	Plant and Machinery(5)	Lines, Cable Network, etc(6)	Vehicles(7)	Furniture & Fictures(8)	Office Equipments(9)	TOTAL	
Circle Kottarakkara	0 kv S/S, Perinad					177000					177000	
	0 kv SS Parippally							115987			115987	
	0 S/S, Punalur				611951	984356	432352				2028659	
	0kv S/S, Ambalapuram					1626085	440320			202435	2268840	
	0Kv S/S, Ayathil					440320					440320	
	0kv S/S, Kottarakkara					1365826					1365826	
	0 KV Sub station , Chavara					192263					192263	
	0 kv S/S , Kundara					2118361					2118361	
	0 kv Anchal					14443790	44897772				59341562	
	0kv S/S, Kottiyam					1138638	9265895				10404533	
	0Kv S/S Edamon					1951551					1951551	
	0 KV S/S t Karunagappally			356322		48527	540740	1351555				2297144
	0kv S/S, Pathanapuram					1170005					1170005	
	0 kv S/S, Edamon					471497	1036040	4543252				6050789
	0 kv SS Kavanadu			215612					4836			220448
	0 kv S/S, Kundara						1645626	1687026				3332652
	kv Sub station ,Ayoor						6812617					6812617
	KV Sub station , Kannanallur					387754						387754
	S, Sasthamcotta							3963656				3963656
	kv S/S, Ayoor					1400904	2078580	13913809				17393293
	kv S/S, Thenmala						455262					455262
	Kv S/S, Anchal			871644		460671		30379913				31712228
	KV Chavara						170000					170000
	kv S/S, Karunagappally						296275					296275
	pitalised at HO during 2018-19	192782	705923							10340		909045
	amon – Anchal-Ayur							22097279				22097279
	IS, Edamon					910404		5336283				6246687
	IS, Kundara							878027				878027
	S Karunagappally							2846303				2846303
	S, Edamon									153240		153240
	Section, Punalur						14043624	9254715	470345			23768684
	Kottarakkara						2909549			215612	777104	3902265
Punalur										49968	49968	
D Punalur					274113	60770441					61044554	
TOTAL	192782	2149501	0	4565821	116366949	151288157	591168	379192	1029507	276563077		
Circle Poovanthuruth	0 kv S/s, Pala				890411	5312003					6202414	
	0 KV SS Pampady		380879								380879	
	0 Kanjirappally		492234		1786472		763850				3042556	
	0 KV Substation , Erattupetta	639436							76608		716044	

	0 KV Substation, Mundakayam		397863		1427077		6384116				8209056
	0kv S/S,Kodimatha				538932	1285476					1824408
	0 kv S/s, Chengalam				243834	5960806					6204640
	0 kv S/s, Erumeli				1210715	544523					3748828
	0 kv S/s, Pala								29916		1639145
	0 kv S/S, Vaikom		563032							71137	757822
	0 kv S/s, Poovanthuruth				1646607	25526400	10343099	36500	3295		37555901
	0 KV SS PALLOM		273216								273216
	kV S/S,Kidangoor					23899					23899
	kv S/s, Kallara					95959					95959
	kv S/s, Vakathanam					78795					78795
	Koothattukulam				36215						36215
	kV Substation Kanjirappally					2496770					2496770
	kv S/s, Changanacherry					150522			8650		159172
	kv S/s, Kottayam		47728								47728
	kv S/s, Kuravilangad						3358856				3358856
	kv Substation, Mundakkayam					1625116	83672				1708788
	umely-Kanjirappally 110kv Line						1421391				1421391
	M S, PALA				148615		760896				909511
	M S, Poovanthuruth						27056				27056
	undakayam-Kanjirappally 33 kv line						115716758		2540		115719298
	Section Poovanthuruth								7291		7291
	ansmission Circle, Poovanthuruth		2979496						77662	10500	3067658
	ansmission Division, Pala									55451	55451
	ansmission Division, Poovth		362133								362133
	llom - PAP Line						1284214			14414	1298628
	kV SC Line Pala- Paika						55367				55367
	undakayam- peerumedu						225611				225611
	nni-Manimala S/s 33 kV SC Line						14747				14747
	la- Ettumanoor						144084				144084
	TOTAL	639436	5496581	0	7928878	43100269	144310189	36500	205962	151502	201869317
Tr Circle Thrissure	0 k v madakkathara		337655		10632775	84624858	17557225				113152513
	0 kv SS Kunnankulam		341644		40462						382106
	K V SS Blangad				1251993	95957	22796661				24144611
	KV Vaigai				567284						567284
	kv s/s Koratty				113233						113233
	MS Chalakudy						1497667				1497667
	annuthy				234676		141455				376131
	ttikkad				542934						542934
	adakkathara						90070				90070
	lappadu				131846	1897870	69755			58970	2158441
	irakkal						1251884				1251884
	lakkal						1888114	1876935			3765049

	IDUKKAD					872593				872593	
	Chalakkuda					13204057	1360872		77590	14642519	
	Changadi						3760628			3760628	
	Chungallur			5833			762615		88455	856903	
	Chalakudy			21812	9498972		485795	18620	29485	10054684	
	Chungallur				946109		274424			1220533	
	Transmission Division Chalakkudy								58970	58970	
	Chithikkad					1946324				1946324	
	Kandassankadavu						149537			149537	
	Cherukutty			1469434	508235				29485	2007154	
	Changanur			35765	1106684		6946			1149395	
	Chalattoor			3412770	7575257				29485	11017512	
	Transmission Circle Thrissur								206392	206392	
	Section Viyyur		29930							29930	
	Changan dvn Thrissur								49485	49485	
	10 kv S/Svalappadu			134433						134433	
	Changanthi					19393538			29485	19423023	
	Cherampuzha			104166						104166	
	Cherpu			310715	5778737		1616146	11492	905906	8622996	
	SD Chalakudy					409575				409575	
	Maintenance Sec. Madakkathara					21818	254578			276396	
	Vadakara			515733					29485	545218	
	Changan Dvn Madakkathara							29975	29485	59460	
	ISI Madakkathara					393486	682249	36185	29485	1141405	
	Location from HO 2018-19		1710096			33764504	6890259			42364859	
	Chundur		1018509			1024607				2043116	
	Mullassery					1548858				1548858	
	Chandanappilly					1053430	243061		374081	1670572	
	Chalakudy- Pariyaram						84284			84284	
	Chalakudy ISHCH						1318738			1318738	
	ISI II Madakkathara						923123			923123	
	Cherpukkara						48960			48960	
	Cherappur- Mullassery						11022967			11022967	
	Cherapur						1575302			1575302	
	Cherpyyur - Kandassankadavu						2898598			2898598	
	TOTAL	0	3437834	0	19525864	188805467	78388850	0	96272	2026244	292280531
Tr Circle Kozhikkode	RU Nallalam		1307553			2187644				3495197	
	OKV SS Thiruvallur		3430578							3430578	
	OKV SS Vadakara					26373		275732	29485	331590	
	10 Kv Gis Ss Gandhi road		3819425			461402		387792	26900	4695519	
	10 Kv Ss Perambra							12000	33985	45985	
	10 KV SS Nallalam		3512752		13146969	410351		361820	285893	17717785	

Kv Ss Kalpetta							21800	29485	51285
0 Kv Ss Kaniyambetta					1372703		47490	47550	1467743
0KV SS Nadapuram					566933		2400	1300	570633
0 Kv Ss Orkattery					325857		49415	16000	391272
Kv Ss Meenangadi				64517				29485	94002
KV SS S.Bathery					27173		7307	1140	35620
KV SS Balussery					15915232				15915232
6 Kv Ss Cyberpark					17346				17346
KV SS Feroke					26019				26019
3 Kv Tr Section Kaniyambetta					455275		9990	37885	503150
0 Kv Ss Agasthyamuzhi					1230645				1230645
0 Kv Ss Chevayoor								96550	96550
0KV SSSD Orkattery					134407				134407
0 Kv Ss Kinalur					27852			29485	57337
Kv Ssm Ambalavayal					49476				49476
0 Kv Ss Koyilandy					13353397				13353397
Kv Ss Kuthumunda					61005		7193		68198
KV SS Ramanattukara					2060				2060
0 Kv Ss Meppayur					129682		37172	39785	206639
0 KV SS Kuttiadi				375641	185616		31013	98282	690552
6 Kv Ss Mananthavady					18500		5500	8400	32400
0 Kv Ss Westhil					38188		7480		45668
0 Kv Ss Chevayoor					1340		4660		6000
0 Kv Ss Kunnamangalam					32955			13400	46355
3 Kv Ss Thambalamanna					18500			34085	52585
6 Kv Ss Thamarassery					18300			39385	57685
6 Kv Gis Ss Puthiyara					387058		2900		389958
IS Vadakara					273816	15059051	31504	41585	15405956
KV s/s Meladi					847016			3500	850516
IS Nallalam					61360		2360		63720
Section Nallalam					2290	764681			766971
0KV SS Chakkittapara					16465				16465
0 Kv LCS Vadakara						21119663			21119663
3 Kv LCS Kuttiady					11542954				11542954
S Ambalavayal							51375	1884	53259
Section Nallalam								4000	4000
KV SS Urumi								29485	29485
kV SS,Vellanoor								29485	29485
KV SS Anchukunnu					20800			45934	66734
KV SS Kuttikkattoor					40474				40474
KV SS Mankave					377024		2480	200591	580095
KV SS Ambalapramba					18408				18408
nnamangalam Agasthyamuzhi line					788971	575659			1364630

	Innamangalam Thungapara line					212668				212668		
	C. Sn. Gandhi Road					203028935				203028935		
	SD Kunnamangalam.						18998	9950		28948		
	SD Vadakara						2400			2400		
	.Section, Pathankayam						18384			18384		
	OKV SS SD Nallalam						8560	1060		9620		
	ans.Circle Kozhikode						23192	485238		508430		
	ans.Division Vadakara						56618	31309		87927		
	KV SS Koothumunda						44535	8200		52735		
	ans Dvn. Kaniyambetta							106825		106825		
	Kv Ss Padinharathara									0		
	S Kaniyambetta							13470		13470		
	Division Kozhikkode							33485		33485		
	Sub Division Kaniyambetta							29485		29485		
	Constr.Section Nallalam							1250		1250		
	Constr.Section Ambalavayal							31085		31085		
	TOTAL	0	12070308	0	13587127	51470867	240760657	0	1532070	2006301	321427330	
Tr Circle Palakkad	OKV S/s Kanjikode		444941		8016621	69011389	830873			15290	78319114	
	OKV S/s Shornur		1165407		1192957	6366636			62350	13550	8800900	
	OKV S/s Vennakkara		715421		48487	410768				29485	1204161	
	OKV S/s Kanjikode				48487	5766742			26314		5841543	
	LOKV S/s, Walayar				355418	394204					749622	
	OKV S/s Parli				48487	1573659				96405	1718551	
	OKV S/s Mannarkkad				48487	366891				58970	474348	
	OKV S/s Malampuzha				2669783	298202				310254	3278239	
	OKV S/s, Kalladikode					337992				8750	346742	
	LOKV S/s, Pathiripala		65970			298202			7500		8300	379972
	OKV S/s Ottapalam					2397362					8300	2405662
	OKV S/s Cherpulassery		114701		3303634	318970			10000		8300	3755605
	OKV S/s Koppam					348353			22182		71870	442405
	OKV S/s Kottanad					2797591					58970	2856561
	OKV S/s Vadakkenchery				277458	5812366	315591				99455	6504870
	OKV S/s Kollengode				444325	593813					276814	1314952
	OKV S/s Kozhinjampara				48486	645602					88455	782543
	OKV SS Pattambi	2411343			4428721	2473124			7400			9320588
	KV S/s Nemmara					658716					29485	688201
	KV S/s Chittur					307885						307885
	KV S/s Kannampully					279564						279564
	KV S/s Chandranagar		479029			605260	60163		193162	29485		1367099
	KV S/s Vidyuthi Bhavanam				25976	159752					645005	830733
KV S/s Olavakkode		1065210		3716039	25959326	2986363		18630			33745568	
KV S/s Agali				25975	1007699						1033674	
KV S/s Alanelur				37081	699228						736309	

	KV S/s Chalissery			25975	654140					680115	
	KV S/s Thirthala		2863855	25975	159751					3049581	
	KV S/s Pattambi			25975	60364					86339	
	3KV S/s,Thiruvegappura			220676	159751					380427	
	TOTAL	2411343	6914534	0	25035023	130923302	4192990	0	347538	1857143	171681873
Tr Circle Kannur	10 kKV Sub Station MUNDAYADU		1001402			1465114	1613720			44185	4124421
	10 KV Sub Station AZHIKODE							6950		135846	142796
	10 KV Sub Station CHERUPUZHA		313422		906030		49061			58970	1327483
	10 KV Sub Station CHERUVATHUR						48493			74870	123363
	10 KV Sub station CHOIVA		1369454						19989		1389443
	KV SubStation WEST ELERY		760696		224317						985013
	KV Substation Kodiyeri		1994708		59088						2053796
	0 KV SS EZHIMALA				113691				34989	29485	178165
	0 KV SS VALIYAVELICHAM		6112559		1703547	15743	1523991			29485	9385325
	10 KV Sub Station KANHANGAD				985834	2818773	27046		68600	58970	3959223
	10 KV Sub Station KASARAGOD				3014800	10119448	575656			112244	13822148
	10 KV Sub Station KUTHUPARAMBA						12449				12449
	KV SubStation TRIKKARIPUR		1446619								1446619
	10 KV Sub Station PAYYANNUR								28889	29485	58374
	10KV Sub Station MULLERIA		222209			271634	979924			58970	1532737
	20 KV MYLATTY					1289490			178700	275085	1743275
	20 KV Sub Station KANHIRODE		207917				529071			117940	854928
	20 KV SubStation THALIPARAMBA				262600	1019041			45225	48130	1374996
	kV Dharmadam		2021783								2021783
	kV Puthur		1773934			10988620					12762554
	kV Kelakam					27655758	86584396		11387		114251541
	3 KV RAJAPURAM		303194		1741621	14169391	47443068		64426		63721700
	3 KV Sub Station Alakode		1753755								1753755
	3 KV Sub Station Ananthapuram					10236					10236
	3 KV Sub Station Thottada				114350						114350
	3 KV Sub Station, NADUKANY		77604		127520	4643349					4848473
	3Kv Kuttiaattoor				56409					4338	60747
	5 KV Sub Station SREEKANDAPURAM		1373641			58918440	9037529			29485	69359095
	5 KV Sub Station,NEDUMPOIL		353345			3482878	11556703				15392926
	KV Sub Station Belur		2119003			1700276					3819279
	0 KV SUBSTATION NEDUMPOYIL					39772999	69647453		28250	29485	109478187
	0 KV S/S KUBANOOR				5537810	5648036	3459140		27140	12000	14684126
	0 KV S/S MANGAD		782336		662136				29932	69544	1543948
0 KV S/S PANOOR					18877446				58970	18936416	
0 KV S/S THALASSERY				173190					129363	302553	
0 KV SS CHERUVATHUR						6749788				6749788	
0 KV SS KSIDC VALIYAVELICHAM					4889520	380344		102879	93964	5466707	
0 KV Sub Station PAZHAYANGADY				825165				11600	125971	962736	

	0 KV Sub Station PINARAYI					5054359	2792675		31750	173387	8052171
	0 KV SS SREEKANDAPURAM								49685		49685
	0 KV SS AMBALATHARA					356824					356824
	0 KV SS Irritty									29018	29018
	KV Payyannur					223902					223902
	YLATTY-THOUDUGOLY LINE						27925264				27925264
	KV Substation Irritty								14900		14900
	TOTAL	0	23987581	0	16508108	213488831	270838217	0	755291	1829190	527407218
r Circle Malappuram	KV Substation,Makkaraparamba					114326					114326
	KV Substation, Thazhekode					100056					100056
	KVS SS,Edakkara									29485	29485
	KV Substation,Nilambur				2807871		4021368		5100	29485	6863824
	KV Substation Mankada									29485	29485
	0 KV Substation, Perinthalmanna					805286	704579		29176	49385	1588426
	0 KV Substation, Manjeri				1421902	28320	138443		24300	29485	1642450
	OKV Substation,Malappuram						5193		12999	29485	47677
	OKV Substation Melattur				401036	74429			12980	58970	547415
	OKV Substation,Kuttippuram		541232		2151396		117887		79117	821740	3711372
	OKV Sub Station Tirur				395937	284137	12271574			42394	12994042
	OKV Sub Station Kizhissery					240630			9500	58970	309100
	OKV Substation, Chelari				362895					29485	392380
	OKV Substation Ponnani					17302125	45809312			29485	63140922
	OKV Substation, Edarikode									29485	29485
0 KV SS ,Parappangadi		171052				1078045			58970	1308067	
OKV Substation Malaparamba						350147	2114739			29485	2494371
	TOTAL	0	712284	0	7541037	19299456	66261140	0	173172	1355794	95342883
r Circle Kalamassery	10kv Substation, Edappally		400487								400487
	10 Kv S/s,Vyttila		23441457			1407243			19541		24868241
	kV GIS S/S, Marine Drive		66307			1827			16520		84654
	kV GIS S/S, Fort Kochi		70858			18482			1270		90610
	Spellate Authority Vyttila		174919								174919
	0 KV S/S Brahmapuram				790262	6523792			47790		7361844
	5 KV Substation, Kakkanad					42545			2400		44945
	ans.Division, Brahmapuram									73485	73485
	0 kv s/s Kaloor				239869	44826916	46728		18638		45132151
	0 KV S/S MYLOOR					163548					163548
	0 kv s/s paruthipara					163548					163548
	5kv Substation, Njarakkal					74160			3353		77513
	kV Substation, Alangad					45850					45850
	0 kv s/s Chavara					999844					999844
	10 kv s/s Thirumala					382320					382320
OKV S/Sn Ayyampuzha					287660					287660	
ans.Division, Ernakulam							788173				788173

kV S/s,Vadakkakara				478154	1223501				1701655
0 Kv S/s,Kalamassery		1109198		2769207	19763453	955284		19665	24616807
ansmission Circle , Kalamassery						305092			305092
1 S/d Kaalamassery		403113		159882		3049334	627434		4239763
0 kv S/S, New Vytila					2974173				2974173
otline wing, Kalamassery		535111						1200	536311
Kalamassery								9500	9500
0Kv TCC TAP FEEDER IN TCC COMPOUND						6129767			6129767
ansmission colony,Kalamassery		907284		123854				22448	1053586
ans. S/D, kalamassery								89680	89680
0 kv S/s,Edayar					1500477	20733		10500	1531710
0 kv S/s,Kizhakkambalam		92617		258522	654756			28035	1033930
U Kalamassery				188574					188574
KV S/S ,Thrikkakara					130071	100678			230749
kv Substation, Varapuzha					84553				84553
5 kv S/s,Perumanoor					81945				81945
8 kv GIS S/s,Thammanam					7185714				7185714
0 kv S/s,Mattanchery					10376896			89011	56676
kv S/s,Edathala					1901338				1901338
10kv S/S, Edathala					4788	15013		50347	70148
0 kv S/s.Kurumassery				951651	10458217	174324		29485	11613677
kv S/S, Kurumassery					23030				23030
5 kv S/S, Puthencruz		2575189		1433625	272742			49957	19418
0 KV S/S CHERAI				2490347	43513709	1945771		734	47950561
C Section,CHERAI									27409
5 kv S/s,Mulavukadu						7731		5208	12939
TRU, Kalamassery					3150			950	4100
0 kv S/s,Aluva		709425			148585			41846	899856
bstation S/d,Aluva								14880	14880
10 kv S/s,Kadavanthara				1199857	641297				1841154
0 kv S/s,Kandanad				1373816	64160			1500	1439476
0 kv S/S, Thykoodam		1188335			1020676				2209011
0 kv S/S, Panangad		329738							329738
kv Substation, Puthenvelikara					53120				53120
0 kv S/S, Wellington Island					27700			2630	14750
10KV s/s Kalamassery						13248			13248
20 kv S/S, Ambalamugal,								95941	95941
annam-Cherai 110 kV DC line						2661920			2661920
Illikara - Brahmapuram 220 MC Line						131160			131160
ans Div, EKM								58970	58970
vil S/D, Kalamassery								361215	361215
10 kv Kalamassery Brahmapuram 1 feeder						3523913			3523913
5 KV VYTTILA- PUTHENCROUZ FEEDER.								41088	272145
									313233

	0 kV S/S, North Parur					124965	827004		2916	105155	1060040
	kV GIS Substation, Tripunithura					47610					47610
	Section, Thripunithura								31048		31048
	5 kv S/s, Panampilly Nagar				106888	343214			31856	1120	483078
	TOTAL	0	32004038	0	12086354	156816228	21919374	627434	633311	1136969	225223708
Tr Circle Trivandrum	0 KV Subststion Varkala					41961235					41961235
	0 KV Subststion Nedumangad				119121	22564974					22684095
	0 KV Subststion Kazhakuttoom				6151407	16430951					22582358
	KV Substation, Palode										0
	0 KV Subststion, Terls				735339	778169					1513508
	0 KV Substation, Pothencode					2957876					2957876
	KV Substation, Venjaramoodu					9155369					9155369
	KV Substation, Pattoor					63783					63783
	KV Substation, Veli				4241858	706227					4948085
	KV Substation, Aryanad	15878822				4704507					20583329
	KV Subststion Kacheri				6427	10603707					10610134
	0 KV Substation, Kattakada				48489	21179450	1605068				22833007
	0 KV Subststion Medical College					470401					470401
	0 KV Subststion Paruthippara				1802807	6209755					8012562
	0 KV Subststion, Thirumala					1022585				13632	1036217
	CD-KTKDA line							2673374			2673374
	Transmission Circle, TVM									40906	40906
	KV S/s Balaramapuram				44408						44408
	kV Subststion kadakkavoor						18529250				18529250
	0 KV S/s, Parassala				1879237	2440812					4320049
	KV S/s, Neyyattinkara				12938581	63520930					76459511
	KV Subststion Poovar					9192651					9192651
	OKVS/ Aruvikkara				123706	456411					580117
kV Subststion Karamana				411321						411321	
kV Subststion Kadakkal						9906695				9906695	
Unsubststion Cases							25055912			25055912	
TA-PSLA line							79510278			79510278	
TOTAL	15878822	0	0	28502701	242855738	108844632	0	0	54538	396136431	
Tr Circle Alappuzha	0 KV S/s, Edathua		243176		62581	14843383					15149140
	0 Kv S/s Chengannur		66670		257877	315422		2750	29485		672204
	KV S/s, Karuvatta		18913		692385						711298
	KV S/s, Alappuzha		472956		15057	454071				147423	1089507
	0 Kv S/s Punnappra		425302		1336615	16822975	3126447		1750		21713089
	MSD TC Section, Alappuzha		141824								141824
	0 KV S/s, kayamkulam		42568						3600	29485	75653
	Kv S/s, Kalarcode		2522916		7642845	30318078	17892624		85430		58461893
	0 KV S/s, Mavelikkara				423280		179567				602847
	0 KV S/s, Aroor				278904						278904

	0 KV S/s, Edappon				1646387	20453366			158240	29485	22287478
	0 KV S/s, Thycattusserry				738707						738707
	IS Cherthala				523479				1895		525374
	ans.Division,Mavelikkara				120004					9950	129954
	KV S/s, Kuttanad					5339			7750		13089
	KV S/s, Kattanam					66851551	42159547		2200		109013298
	KV S/s, Mannar					17700					17700
	KV S/s, Pathirappally					6102400			2295		6104695
	KV S/s,Nangiarkulangara					642313			5150		647463
	OKv S/s Eramalloorr					98888763					98888763
	posit Work					2490000					2490000
	0 KV S/s,Chellanam					115053					115053
	vt.Allocation from HO					28065061	7115394				35180455
	nnapra-Edathua DC Line						366426				366426
	ttanam-Vallikunnam						941984				941984
	yapuram-Punnapra						200000				200000
	lamasserry-Aroor						264176				264176
	llom-Mvka DC Line						120619				120619
	aranikavu-Edappon Line						687125				687125
	pn-Sasthamkotta 110 Line						1400423			29485	1429908
	ans. Circle, Alappuzha								13944		13944
	an Dvn Alappuzha								9900		9900
	KV S/s, Karuvatta								1500		1500
	KV S/s, Cherthala								3600		3600
	ans Sub Dvn Aroor								2700		2700
	0 Kv S/s S L Puram								4102		4102
	TOTAL	0	3934325	0	13738121	286385475	74454332	0	306806	275313	379094372
Tr Division Pathanamthitta	KV S/S, Enathu	66536	245647	510460	7702313	2015198	14135663		69176	2400	24747393
	0 KV S/S, Kozhencherry				147238	948203	2217			29485	1127143
	0 kv s/s, Pathanamthitta				128744	3619288	38341		2596	32485	3821454
	kv s/s, Adoor				9810591	3944206	2345079				16099876
	kv s/s, Triveni				1449216	1156751	65627				2671594
	kv s/s, Kochupamba				2093706	113866	75984		1470		2285026
	Enathu				53783590	13429860	41223728		3392	1200	108441770
	, PTA				9589981	2598091			9678	275154	12472904
	0 KV S/S, Ranni					92437	48147			58970	199554
	KV S/S, Konni					227659					227659
	KV S/S, Pandalam					109764	314280				424044
	kv S/S, Kumbanadu					78695	531498		3540		613733
	KV S/S, Chumathra					240301	2217		25858	36121	304497
	KV S/S, Thiruvalla					192383	106684		7136	32085	338288
	IS,Moozhiyar					136129	989096		23757		1148982
	, Pandalam					471619	2562293				3033912

	, Pathanamthitta					4122520	5507393				9629913
	0 KV S/s, Koodal					38678	2217			1785	42680
	KV S/S, Pandalam						26950				26950
	0 KV S/S, Mallappally						2217		1487		3704
	TOTAL	66536	245647	510460	84705379	33535648	67979631	0	148090	469685	187661076
r Circle Thodupuzha	0 kv S/s Murickassery		35900			97157				32285	165342
	kv S/s Vandanmedu	1237622	493274	2450		6226661					7960007
	kv S/s Thodupuzha								18870		18870
	0 kv S/s Muvattupuzha				6221	5204021	38988331	586332	44100	29485	44858490
	kv S/s Marayoor		5310506			1700252	1291151			29885	8331794
	0 kv S/s Myloor		115853			74192	5602		9302	31285	236234
	0 kv S/s Marady		99309		182558	6854053			2748		7138668
	kv S/s Odakkali		310507		2174589	2169899					4654995
	kv S/s Karimanal		140639			41717					182356
	0 kv S/s New Muvattupuzha						90801				90801
	kv S/sPeermade					9305090	56463		34771	30960	9427284
	kv S/s Senapathy						39665				39665
	kv S/s Kuruppampady					1267891				31285	1299176
	kv S/s Vandiperiyar				3859287	5891104				37835	9788226
	0 KV S/s Rayonpuram					925155			4629	29485	959269
	0kv S/s Murttom					877886	156355		1680	29485	1065406
	kv S/s Kumily					193039				2000	195039
	0kv S/s Udumbannor					83239				304326	387565
	0 kv s/s Piravom					166958			5900	10700	183558
	0 KV S/s Adimaly					2538077			43975		2582052
	0 kv S/s Perubavoor					101657			25200		126857
	0 kv S/s Kutumkal					31270				29485	60755
	0 kv S/s Udumbannor					31270			5400	36335	73005
kv s/s Kothamangalam					39117	5636498		10300	1146	5687061	
Kv Kattappana								2578	29485	32063	
KV Vengola									33085	33085	
	TOTAL	1237622	6505988	2450	6222655	43819705	46264866	586332	209453	728552	105577623
14.01 - TRANSMISSION SCHEMES - GRAND TOTAL		20426541	97458621	512910	239947068	1526867935	1275503035	1841434	4787157	12920738	3180265439
14.18- POWER SYSTEM DEVELOPMENT FUND											
1	N CIRCLE MEENCUT					6446250					6446250
4	N CIRCLE MOOZHIIYAR				7043125	1412409					8455534
7	N CIRCLE KOTHAMANGALAM					7982995					7982995
0	TRANSGRID SHORNUR				16239	9002	135136693				135161934
4	Tr SO KALAMASSERY		138423	3055800		26098544	14654			2719	29310140
14.18 - POWER SYSTEM DEVELOPMENT FUND - GRAND TOTAL		0	138423	3055800	7059364	41949200	135151347	0	0	2719	187356853
14.22- SCADA UPGRADATION PROJECT											
4	N CIRCLE MOOZHIIYAR					4244125					4244125
14.22 - SCADA UPGRADATION PROJECT - GRAND TOTAL		0	0	0	0	4244125	0	0	0	0	4244125

14.56- LOAD DESPATCH & COMMUNICATION SCHEMES											
7	S OPERATION CIRCLE TVPM					30359873	4741979				35101852
8	S OPERATION CIRCLE KLMSRY					31431879					31431879
9	S OPERATION CIRCLE KANNR					18206295					18206295
14.56 - LOAD DESPATCH & COMMUNICATION SCHEMES - GRAND TOTAL		0	0	0	0	79998047	4741979	0	0	0	84740026
14.61- EXPENDITURE DUE TO NATURAL CALAMITY											
VARIOUS ARUs						6925648					6925648
14.61- EXPENDITURE DUE TO NATURAL CALAMITY - GRAND TOTAL		0	0	0	0	6925648	0	0	0	0	6925648
14.90- CWIP-GENERAL											
VARIOUS ARUs		27141517	130160064	2665500	10224427	4514884	85440792	649908	694905	5384076	266876073
14.90- CWIP-GENERAL - GRAND TOTAL		27141517	130160064	2665500	10224427	4514884	85440792	649908	694905	5384076	266876073
14.94- TRANSGRID 2.0 PROJECT											
0	TRANSGRID SHORNUR	114287	236145		6921482	2503	46165188		759170	1594899	55793674
14.94- TRANSGRID 2.0 PROJECT - GRAND TOTAL		114287	236145	0	6921482	2503	46165188	0	759170	1594899	55793674
SBU -T TOTAL ASSET ADDITION DURING 2019-20 (In Crores)		4.77	22.80	0.62	26.42	166.45	154.70	0.25	0.62	1.99	378.62

Appendix 12 SBU T - DETAILS OF MAJOR TRANSMISSION ASSETS COMMISSIONED DURING 2019-20										
Substations/ Lines commissioned during 2019-20										
Sl. No	Name of Substation	Voltage level (kV)	New / Upgn.	Start Date		Commissioning date		AS amount in Crs	Actual Expenditure in Crs	Remarks (Reason for Cost overrun and Time overrun if any)
				Scheduled	Actual	Scheduled	Actual			
1	Olavakkode SS	33	New	25-2-2017	25-2-2017	12-4-2019	12.4.2019	8.45	3.47	No time and cost over run
	Vydhuthi Bhavanam - Olavakkode ABC Line	33	New	25.02.2017	25.02.2017	12.4.2019	12.4.2019		6.11	No time and cost over run
2	Eramallur SS	110	New	25.05.2017	23.07.2017	30.03.2019	20.06.2019	10.49	12.32	Work delayed due to first phase of water flood in 2018. Cost incurred for land and transformer are higher than estimated value
	LILO to Ermallur from SL puram - Chellanam line	110								
3	Enathu SS	66	New	04.05.2016	04.05.2016	07.02.2019	26.06.2019	18.38	4.7	Time overrun reason: Non Availability of materials
	Adoor-Enathu SC line	66	New	29.01.2018	29.01.2018	07.02.2019	26.06.2019		13.65	
4	Cherai SS	110	New	13.12.2018	21.12.2018	13.02.2019	29.06.2019	7.85	7.6	actual expenditure includes the Towerfoot compensation, Treecutting compensation, Line compensation and also tree cutting charges. Time overrun reason: RoW issues . Various court cases
	LILO to Cherai from North Paravur - Edayar line	110	New	09.03.2018	22.03.2018	08.12.2018	25.6.2019	21.17	21.31	
5	Vydyuthi Bhavan, TVM	33	New	08.11.218	22.07.2019	08.11.2018	22.07.2019	7.43	7.44	
	Medicall College- Vydyuthi Bhavanam UG cable	33	New	14.1.2019	14.1.2019	31.3.2019	28.6.19			
6	Sreekantapuram SS	110	upgn	2016	9.03.2017	31.3.2020	13.12.2019	5.19	5.17	Nil
7	Kelakom SS	33	New	2017	22.8.2017	31.12.2019	02.8.2019	5.41	4.11	Nil
	Nedumpoil - Kelakom (UG)	33	new	2017	01.6.2018	31.12.2019	17.7.2019	4.59	5.62	AS estimate sanctioned in pre-GST period. Work execution and bills in GST period. Hence cost over run
8	Kodungallur SS	110	upgn	17-10-18	17-10-18	31-03-19	22-08-19	9.5	6.4	work delayed due to shortage of materials; Upgradation of 66 kV to 110kV completed and commissioned. One 33 kV bay work pending and is to be done in connection with 33 kV Methala- Kodungallur line. Hence difference in actual expenditure from AS amount.
	Chalakkudy - Kodungalloor	110	upgn	12.03.2018	3-27-2018	31.07.2019	21.08.2019	6.5	4.4	Work executed under IPDS scheme. Tendered below estimate rate- hence difference n actual expenditure from AS amount.
	Chalakkudy - Mala	110	upgn	12.03.2018	3-27-2018	31.07.2019	5.11.2020			
	Kodungallur - Mala	110	upgn	12.03.2018	3-27-2018	31.07.2019	20.09.2019			
9	Vandanmedu SS	33	New	01.11.2016	05.06.2017	31.03.2018	16.09.2019	3.25	2.77	Reason for time overrun is delay in

	Nedumkandom - Vandanmedu SC	33	New	05.06.2017	30.01.2018	31.03.2018	31.08.2019	3.52	3.29	obtaining clearance from Forest Department
10	Kalarcode SS	33	New	24.8.2017	24.8.2017	01.03.2019	30.11.2019	5.8	5.84	The 33kV line originally proposed in ABC, but later changed as covered conductor, which delayed the project.
	Punnapra - Kalarcode	33	New	24.08.2017	24.08.2017	01.03.2019	30.11.2019			
11	Kattanam SS	66	upgn	01.09.2017	01.09.2017	31.03.2019	11.12.2019	11.8	6.69	Reason for time overrun is the delay in getting Department materials & Peculiarity of site condition for carrying out metalling works.
	LILO to Kattanam from Mavelikkara - Karunagappally line	66	New	21.06.2018	22.06.2018	31.03.2019	11.12.2019		4.22	
12	Ayur SS	110	upgn	9-28-2016	11-10-2016	3-31-2020	29.02.20	7.3	5.6	
Lines commissioned during 2019-20										
Sl. No	Name of Line	Voltage level (kV)	New / Upgn.	Start Date		Commissioning date		AS amount in Crs	Actual Expenditure in Crs	Remarks (Reason for Cost overrun and Time overrun if any)
				Scheduled	Actual	Scheduled	Actual			
1	LILO from Kanhirode-Mattannur line (DC)	110	upgn	2017	9.3.2017	31.3.2020	28.11.2019	4.76	4.61	
2	Karukadom - Kothamangalam	220	New	8.2.2018	8.2.2018	11.12.2019	11.12.2019	10.03	7.67	AS includes all compensations hence reduction in expenditure
3	Karukadom - Kothamangalam	110	New							
4	Kaniyambetta - Kuthumunda	110	New	1-4-2017	1-21-2017	12-2-2017	24.05.2019	12.37	7.41	
5	Santhinagar - Pookkottumpadam	33	New	22.2.2017	25.2.2017	21.06.17	3.04.2019	2.52	1.82	Commissioning delayed due to some site issues in the line route.
6	Neyyattinkara - Parassala #1	110	upgn	27.05.2017	19.06.2017	02.03.2018	30.04.2019	9.44	7.51	<p>Justification for reduction in expenditure.</p> <p>1. Non execution of excavation in ordinary and hard rocks, construction of earthen ring bund and rewinding of power conductor. 2. Reduction of pile foundation from 8 to 4 and revetment.</p> <p>Reasons for Delay:</p> <p>1. Right of Way issues with the land owners</p> <p>2. Due to unexpected rain, tower locations were submerged with rain water</p> <p>3. Working hours were suspended due to sun stroke by the Govt. Of Kerala</p> <p>4. Delay in getting shutdown of 11kV and LT line at various locations under various section offices.</p>
Capacity addition during 2019-20										

Sl. No	Name of Substation	Voltage level (kV)	New/Upgn./ Cap. Addn./Cap.enhct.	Start Date		Commissioning date		AS amount in Crs	Actual Expenditure in Crs	Remarks (Reason for Cost overrun and Time overrun if any)
				Scheduled	Actual	Scheduled	Actual			
1	110 kV Substation, Panoor	110/33	Cap addn	2017-18	01.4.2018	30.6.2019	28.6.2019	2.6	1.89	
2	33 kV Substation, Melady	33/11	Cap Enh	5-14-2019	6-1-2019	05-09-2019	22-08-2019	9.3	6.89	
3	33 kV Substation, Venjarammoodu	33/11	Cap Enh	7-19-2021	7-24-2021	7-30-2021	7-29-2021	6.96	6.78	
4	33 kV Substation, Kadakkavoor	33/11	Cap Enh	5-10-2019	5-10-2019	5-30-2019	6-4-2019	1.50	1.38	
5	33 kV Substation, Kadakkavoor	33/11	Cap Enh	5-10-2019	5-10-2019	5-30-2019	6-4-2019			
6	33 kV Substation, Kacheri, Attingal	33/11	Cap Addn	5-20-2019	5-20-2019	6-10-2019	6-6-2019	6.59	0.78	Cap Addn of 5MVA #2 trfr. Part of Constrn of 33kV Indoor Containerised SS, Katchery
7	33 kV Substation, Poovar	33/11	Cap Enh	28.07.2019	28.07.2019	6.8.2019	6.8.2019	0.70	0.69	
8	110kV Substation Edathua	110/33	Cap.Addn.	01.10.2018	30.10.2018	30.04.2019	20.04.2019	1.94	1.48	Erection, supervision and transportation charges are considered in percentage of material cost in AS estimate

Appendix 13 SBU DETAILS OF CONTRIBUTIONS, GRANTS AND SUBSIDIES TOWARDS COST OF CAPITAL ASSETS (GROSS) (Rs. Cr)																	
SL No.	PARTICULARS	2016-17				2017-18				2018-19				2019-20			
		GEN	TRANS	DIST	TOTAL	GEN	TRANS	DIST	TOTAL	GEN	TRANS	DIST	TOTAL	GEN	TRANS	DIST	TOTAL
1	Consumer contribution		31.14	927.63	958.77		65.97	1,189.40	1255.37		94.37	1485.58	1,579.95	0.00	153.23	1827.83	1981.06
2	Subsidies			125.54	125.54	58.79		93.55	152.35	68.79		93.55	162.35	70.89	0.00	93.55	164.45
3	Grants Recd. Towards Cost Of Fixed Assets		16.44	225.09	241.53	16.52	85.51	338.86	440.88	19.83	345.5	529.85	895.19	19.83	446.67	681.93	1148.44
4	Others		47.36	132.2	179.56		47.46	182.8	230.26	0.03	48.75	233.58	282.36	0.03	50.39	272.72	323.14
5	Gross Total	0	94.94	1410.46	1505.4	75.31	198.93	1804.61	2078.86	88.654	488.624	2342.57	2,919.84	90.75	650.30	2876.03	3617.08
6	Add: Concessional loan			49.88	49.88	7.96	8.65	54.37	70.97	5.34	8.52	82.07	95.93				
7	Add: Decommissioning liability			18.38	18.38	5	5.54	10.03	20.56	5.08	5.88	11.22	22.18	5.11	6.27	12.81	24.19
8	Less: Subsidies & grants amortization			144.44	144.44	7.95	20.51	219.17	247.64	17.64	49.57	325.61	392.81	23.08	83.98	485.97	593.03
9	As per Accounts	0	94.94	1334.28	1429.22	80.31	192.61	1649.83	1922.76	81.44	453.46	2110.24	2645.15	72.79	572.59	2402.87	3048.25

Note: Grants received during the year 2018-19 include Rs.85.03 Cr received from Government for the restoration of damages caused by flood.

Appendix 13 A: SBU DETAILS OF CONTRIBUTIONS, GRANTS AND SUBSIDIES (Additions during the year)													
SL No.	PARTICULARS	2018-19				2019-20				Addition during 2019-20			
		GEN	TRANS	DIST	TOTAL	GEN	TRANS	DIST	TOTAL	GEN	TRANS	DIST	TOTAL
1	Consumer contribution		94.37	1485.58	1,579.95	0.00	153.23	1827.83	1981.06	0.00	58.86	342.25	401.11
2	Subsidies	68.79		93.55	162.35	70.89	0.00	93.55	164.45	2.10	0.00	0.00	2.10
3	Grants Recd. Towards Cost of Fixed Assets	19.83	345.5	529.85	895.19	19.83	446.67	681.93	1148.44	0.00	101.17	152.08	253.25
4	Others	0.03	48.75	233.58	282.36	0.03	50.39	272.72	323.14	0.00	1.64	39.14	40.78
5	Gross Total	88.654	488.624	2342.57	2,919.84	90.75	650.30	2876.03	3617.08	2.10	161.68	533.46	697.24
6	Add: Concessional loan	5.34	8.52	82.07	95.93					-5.34	-8.52	-82.07	-95.93
7	Add: Decommissioning liability	5.08	5.88	11.22	22.18	5.11	6.27	12.81	24.19	0.03	0.39	1.59	2.01
8	Less: Subsidies & grants amortization	17.64	49.57	325.61	392.81	23.08	83.98	485.97	593.03	5.44	34.41	160.36	200.22
9	As per Accounts	81.44	453.46	2110.24	2645.15	72.79	572.59	2402.87	3048.25	-8.65	119.13	292.63	403.10

Appendix 14: Employee Cost for the period from 2015-16 to 2017-18(Rs. Cr)						
Sl. No	Particulars	2015-16	2016-17	2017-18	2018-19	2019-20
1	Basic Pay	811.43	1755.52	1806.86	1828.35	1827.45
	Pension fund -Actuarial valuation			509.42	498.37	435.64
	Add: Provision for pay revision	339	0	0	176	250.00
2	Overtime / Holiday wages	0.2	0.41	0.34	0.29	0.36
3	D.A.	930.41	378.1	443.35	547.44	684.99
	Add: Provision for DA revision	0	0	9		22.89
		2081.04	2134.03	2768.97	3050.45	3221.33
4	Other Allowances					
	a) HRA	18.71	44.75	44.72	45.01	44.46
	b) Spread over allowances	3.66	4.88	4.98		
	c) Incentive allowances	0.34	0.3	0.27	32.39	28.37
	d) Local and other allowances	18.88	28.76	27.67		
5	Bonus	8.25	9.1	9.83	9.44	9.73
6	Medical Reimbursement	8.52	10.35	10.83	12.88	12.85
7	a) Earned Leave encashment	124.15	145.67	153.1	181.1	160.46
	b) Terminal Surrender	22.61				
	LTA			0.21	0.22	0.26
8	Payment under workmen compensation Act	0.08	0.5	0.14	0.54	0.22
9	Leave Salary and Pension Contribution	0.18	13.78	13.28		
	NPS Contribution				17.87	21.84
10	Staff welfare expenses			0.11	0.43	4.52
	a) Uniform & Livery expenses	1.82	4.28	4.24	4.29	4.37
	b) Cash award for meritorious service etc	0.07	0.05	0.05		
		207.27	262.42	269.43	304.18	287.08
11	Gross employee cost (before capitalization)-As per accounts	2288.32	2396.47	3038.4	3354.63	3508.41
	Less: Actuarial liability	0	0	509.42	498.37	435.64
	Less: Provision for pay revision				176	250.00
12	Employee Cost for the year for TU	2288.32	2396.47	2528.98	2680.26	2822.77
13	Increase over previous year		108.15	132.51	151.28	142.51
14	YOY increase %		4.73	5.53	5.98	5.32
15	Less Capitalized	188.29	242.92	333.23	410.54	460.94
16	Net employee cost in TU petition	2100.03	2153.55	2195.75	2269.72	2361.84
17	YOY increase		53.52	42.2	73.97	92.12
18	YOY increase %		2.55	1.96	3.37	4.06

Appendix 15: SBU wise break up of Non-Tariff Income (Rs. Cr)					
Sl No	Particulars	SBU G	SBU T	SBU D	Total
1	Interest on staff loans and advances			0.05	0.05
2	Income from rent of land or buildings	0.76	0.98	1.95	3.69
3	Income from sale of scrap	1.92	11.06	23.88	36.86
4	Rental from staff quarters	0.05	0.1	0.15	0.30
5	Excess found on physical verification		0.01		0.01
6	Interest on investments, fixed and call deposits and bank balances	2.69	2.5	4.71	9.90
7	Interest on advances to suppliers/contractors	1.68	2.01	3.11	6.80
8	Income from hire charges from contractors and others			0.01	0.01
9	Income due to right of way granted for laying fibre optic cables/co-axial cables on distribution system			32.04	32.04
10	Income from advertisements, etc.				0.00
11	Miscellaneous receipts	3.76	23.88	43.55	71.18
12	Rebate from Central Generating Stations			109.10	109.10
13	Recovery for theft and pilferage of energy			7.67	7.67
14	Meter/metering equipment/service line rentals			96.95	96.95
15	Miscellaneous Charges from consumers			203.41	203.41
16	Wheeling charges recovery			3.65	3.65
17	Reactive energy charges			16.02	16.02
18	Clawback of Grant	5.44	30.33	164.44	200.21
	Total	16.30	70.87	710.66	797.85

Appendix –16: Miscellaneous charge from consumers (Rs Cr)		
No	Particulars	Amount
1	Other item	65.66
2	TF/RF	19.72
3	LE/SC Minimum	0.04
4	Processing fee power allocation	3.07
5	STOA Registration and application	0.23
6	STOA Open access charges	21.17
7	Energization charges	0.37
8	Misc. charges-PF penalty	87.94
9	Application fee & Registration fee for grid connectivity to solar plants	5.21
10	TOTAL	203.41

Appendix-17: MISCELLANEOUS RECEIPTS (Rs Cr)		
No	Particulars	Amount
1	Rental from staff quarters	0.29
2	Rental from contractors	0.14
3	Rent from others	3.26
4	Pole rent Cable TV Operators	32.04
5	Infra dev charges and supervision charges	6.06
6	SD Forfeited	0.56
7	Sale of trees	0.08
8	Usufructs	0.14
9	Penalty/LD from contractors/suppliers	14.21
10	Interest/penalty on pole rent SD	1.37
11	Outside students-project	0.44
12	Fee for providing information	0.01
13	Revenue Energy audit consultancy	0.03
14	Rent from office cum complex	0.28
15	Optical fibre cable leasing	5.49
16	Testing fee from contractors	0.85
17	Centage to SPVs for KHFB project	6.51
18	Centage from Govt dept./ agencies	1.37
19	Commission for collection of electricity duty	9.20
20	Others	20.21
24	Total	102.54

Appendix 18: INCOME FROM SALE OF SCRAP/TENDER FORM (Rs. Cr)		
No	Particulars	Amount
1	Sale of scrap	36.86
2	Sale of tender forms	3.95
3	Sale of LED Bulbs	0.61
4	Sale of safety equipment	0.08
5	Hire charge	0.01
4	Total	41.51

Appendix 19 Comparison of SBU wise break up of ARR, ERC and Revenue gap for 2019-20 (Rs Cr)													
No	Particulars	As per trifurcated Accounts				TU sought				Variation 2019-20 Accounts vs TU			
		SBU G	SBU T	SBU D	Total	SBU G	SBU T	SBU D	Total	SBU G	SBU T	SBU D	Total
1	Cost of Generation (SBU-G)			613.29			514.80					98.49	
2	Cost of Power Purchase			8112.64	8112.64			8049.20	8049.20			63.44	63.44
3	Cost of Inter-State Transmission			567.34	567.34			567.34	567.34			0.00	
4	Cost of Intra-State Transmission (SBU-T)			1037.63				909.89				127.74	
5	Cost of generation of power	5.71			5.71	5.71			5.71				
6	Interest & Financial Charges												
7	Interest on loans	103.77	122.09	371.45	597.31					103.77	122.09	371.45	597.31
8	Less: Capitalized	57.51	37.73	211.77	307.01					57.51	37.73	211.77	307.01
9	Net interest	46.26	84.36	159.68	290.30	68.14	109.86	272.17	450.17	-21.88	-25.50	-112.49	-159.87
10	Interest on GPF	7.72	16.90	146.63	171.26	7.72	16.90	146.63	171.26				
11	Other interest			11.97	11.97			11.97	11.97				
12	Interest on Master Trust	33.06	72.35	627.56	732.96	33.06	72.35	627.56	732.96				
13	Int on SD	0.00	0.00	196.29	196.29			173.05	173.05			23.24	23.24
14	Working capital interest	8.53	18.68	162.04	189.25	6.59	17.12		23.71	1.94	1.56	162.04	165.54
15	Carrying cost							548.11	548.11			-548.11	-548.11
16	Total I&F	95.57	192.29	1304.17	1592.03	115.51	216.23	1779.49	2111.23	-19.94	-23.94	-475.32	-519.19
17	Depreciation	186.04	235.46	480.42	901.92	125.93	162.70	119.27	407.90	60.11	72.76	361.15	494.02
18	O&M Expenses												
19	Employee cost (excl PR)	207.81	384.42	2666.18	3258.41					207.81	384.42	2666.18	3258.41
20	Less: Capitalized	69.34	61.29	330.3	460.93					69.34	61.29	330.30	460.93
21	Balance	138.47	323.13	2335.88	2797.48					138.47	323.13	2335.88	2797.48
22	R&M expenses	25.48	39.06	217.26	281.81					25.48	39.06	217.26	281.81
23	A&G expenses	26.34	97.54	442.44	566.32					26.34	97.54	442.44	566.32
24	Less: Capitalized	0.42	0.83	0.42	1.67					0.42	0.83	0.42	1.67
25	Balance	25.92	96.70	442.02	564.65					25.92	96.70	442.02	564.65
26	Total O&M Expenses	189.87	458.89	2995.16	3643.94	132.16	386.87	2442.44	2961.47	57.71	72.02	552.72	682.47
27	Pay revision	15.94	29.50	204.56	250.00	15.94	29.50	204.56	250.00				
28	Master Trust Contribution					10.26	22.64	167.10	200.00	-10.26	-22.64	-167.10	-200.00
29	Return on equity (14%)	132.69	190.86		323.55	116.38	119.99	253.50	489.87	16.31	70.87	-253.50	-166.32
30	Other Expenses	0.02	1.36	20.59	21.97	0.02	1.36	20.59	21.97				
31	Exceptional items	3.75	0.13	24.72	28.60	3.75	0.13	24.72	28.60				
32	Sharing of Gain				0.00		9.79	19.44	29.23		-9.79	-19.44	-29.23
33	Amortization and interest				0.00		1.22		1.22		-1.22	0.00	-1.22
34	Total ARR	629.59	1108.49	15360.52	15447.70	525.66	950.43	15072.34	15123.74	103.93	158.06	288.19	323.97
35	Tariff Income/ Rev from operation			14363.38	14363.38			14056.75	14056.75			306.63	306.63
36	Less: PF Incentive			102.65	102.65			56.95	56.95			45.70	45.70
37	Revenue from external sale			19.11	19.11			19.11	19.11				
38	Non-Tariff Income	16.30	70.86	487.58	574.74	10.86	40.54	500.33	551.73	5.44	30.32	-12.75	23.01
39	Total ERC/ Transfer price	613.29	1037.63	14767.42	14854.58	514.80	909.89	14519.24	14570.64	98.49	127.74	248.18	283.94
40	Net Revenue Gap			-593.10	-593.10			-553.10	-553.10			-40.01	-40.01

Appendix 20 Comparison of SBU wise break up of ARR, ERC and Revenue gap as per approval and TU for 2019-20 (Rs Cr)

No	Particulars	KSERC				TU sought				Variation 2019-20 Approval vs TU			
		SBU G	SBU T	SBU D	Total	SBU G	SBU T	SBU D	Total	SBU G	SBU T	SBU D	Total
1	Cost of Generation (SBU-G)			505.93			514.80					-8.87	
2	Cost of Power Purchase			8613.94	8613.94			8049.20	8049.20			564.74	564.74
3	Cost of Inter-State Transmission							567.34	567.34			-567.34	-567.34
4	Cost of Intra-State Transmission (SBU-T)			983.69				909.89				73.80	0.00
5	NLDC/RLDC Charges			3.00	3.00							3.00	3.00
6	Cost of generation of power					5.71			5.71	-5.71			-5.71
7	Interest & Financial Charges												
8	Interest on loans	82.45	185.05	222.94	490.44	68.14	109.86	272.17	450.17	14.31	75.19	-49.23	40.27
9	Interest on GPF	9.98	22.03	162.58	194.59	7.72	16.90	146.63	171.26	2.26	5.13	15.95	23.33
10	Other interest							11.97	11.97			-11.97	-11.97
11	Interest on Master Trust	37.58	82.95	612.43	732.96	33.06	72.35	627.56	732.96	4.52	10.60	-15.13	
12	Int on SD			199.93	199.93			173.05	173.05			26.88	26.88
13	Working capital interest	6.23	17.40		23.63	6.59	17.12		23.71	-0.36	0.28		-0.08
14	Carrying cost			223.59	223.59			548.11	548.11			-324.52	-324.52
15	Total I&F	136.24	307.43	1421.47	1865.14	115.51	216.23	1779.49	2111.23	20.73	91.20	358.02	246.09
16	Depreciation	141.38	173.47	93.47	408.32	125.93	162.70	119.27	407.90	15.45	10.77	-25.80	0.42
17	Total O&M Expenses	135.04	397.46	2458.95	2991.45	132.16	386.87	2442.44	2961.47	2.88	10.59	16.51	29.98
18	Pay revision					15.94	29.50	204.56	250.00	15.94	29.50	-204.56	-250.00
19	Master Trust Contribution	10.26	22.64	167.10	200.00	10.26	22.64	167.10	200.00				
20	Return on equity (14%)	116.38	119.99	253.50	489.87	116.38	119.99	253.50	489.87				
21	Other Expenses					0.02	1.36	20.59	21.97	-0.02	-1.36	-20.59	-21.97
22	Exceptional items					3.75	0.13	24.72	28.60	-3.75	-0.13	-24.72	-28.60
23	Sharing of Gain			0.00			9.79	19.44	29.23	0.00	-9.79	-19.44	-29.23
24	Amortization and interest						1.22		1.22	0.00	-1.22		-1.22
25	Recovery of past approved gap			1000.00	1000.00							1000.00	1000.00
26	Total ARR	539.30	1020.99	15501.04	15571.72	525.66	950.43	15072.34	15123.74	13.64	70.56	428.70	447.98
27	Tariff Income/ Rev from operation			13254.67	13254.67			14056.75	14056.75			-802.08	-802.08
28	Less: PF Incentive			44.99	44.99			56.95	56.95			-11.96	-11.96
29	Revenue from external sale			942.70	942.70			19.11	19.11			923.59	923.59
30	Non-Tariff Income	33.38	37.30	548.10	618.78	10.86	40.54	500.33	551.73	22.52	-3.24	47.77	67.05
31	Total ERC/ Transfer price	505.92	983.69	14700.48	14771.16	514.80	909.89	14519.24	14570.64	-8.88	73.80	181.24	200.52
32	Net Revenue Gap			-800.56	-800.56			-553.10	-553.10			-247.46	-247.46

----- End of Chapter 5 -----

CHAPTER- 6: SUMMARY OF TRUE-UP AND PRAYER

6.1 An item wise comparison of the ARR, ERC and Revenue gap as per ARR and the actual as per the truing up petitions are given in the Table - 6.1 below.

Table - 6.1 : SUMMARY OF TRUE-UP FOR FY 2019-20				
Particulars	Approved	Actual	Sought for TU	Deviation from approval
Generation Of Power	0.00	5.71	5.71	-5.71
Purchase of power	8616.94	8680.00	8616.54	0.40
Interest & Finance Charges	1865.14	1592.03	2111.23	-246.09
Depreciation	408.32	901.92	407.90	0.42
O&M cost	2991.45	3893.92	3211.47	-220.02
Repair & Maintenance				0.00
Administration & General Expenses				0.00
Other Expenses	0.00	50.57	50.57	-50.57
Interest on Additional Bond to Trust	200.00	0.00	200.00	0.00
Retaining gains out of T&D loss reduction beyond target			19.44	-19.44
Incentive for transmission availability			9.79	-9.79
Amortization of past gap	1000.00		0.00	1000.00
RoE	489.87		489.87	0.00
Amortization and interest			1.22	-1.22
Net Expenditure (A)	15571.72	15124.15	15123.74	447.98
Non-Tariff Income	618.78	210.16	551.73	67.05
Revenue from Tariff	14152.38	14644.44	14018.91	133.47
Total Income (D)	14771.16	14854.60	14570.64	200.52
Revenue surplus (Gap) (D-C)	-800.56	-269.55	-553.10	-247.46

6.2 The Statutory Auditors have audited and certified the accounts for the year 2019-20. This truing up petition is prepared on the basis of the audited accounts. The petitioner is furnishing the details of accounts as per formats given in the Tariff regulation. However, should the Hon Commission require any further details or information; the petitioner will be furnishing them as and when required.

6.3 As per proviso to Regulation 10 (1) (b) of the KSERC (Terms and Conditions for the Determination of Tariff) Regulations, 2018 truing up petition for 2019-20 was due to be filed on 30.11.2020. However, the petition could be filed only on 07.01.2021. KSEBL humbly submits that the following reasons for the delay in filing petition before the Hon'ble Commission.

6.4 Truing up petitions are filed on the basis of the accounts were audited and certified by the statutory auditors on 16.02.2020 and the supplementary audit report was issued by C&AG on 19.06.2021. Hon'ble Commission issued Truing up orders for 2017-18 on 25.06.2021. Since

there were some apparent errors on the face of records in the order, a petition seeking review of the order dated 25.06.2021 had to be undertaken. It is respectfully submitted that the petition seeking review of the order dated 25.06.2021 was filed on 22.10.2021.

6.5 Hon'ble Commission conducted public hearing on the MPR petition (OP No 13/2020) comprising of Truing up petition for 2018-19, mid-year review for 2019-20 and revised projection for 2020-21 and 2021-22 on 29.07.2021. Additional details were to be furnished on queries raised by the Hon'ble Commission as per Daily order dated 09.08.2021. Reply to query was filed on 30.07.2021 and 01.10.2021.

6.6 Hon'ble Commission, in the meanwhile, notified the draft Tariff Regulation, 2021 on 06.08.2021 and public hearing was conducted on 15.09.2021. Numerous related works were to be attended to in order to bring the genuine concerns of KSEBL before the kind attention of the Hon'ble Commission. KSEBL furnished its comments on 14.09.2021. Hon'ble Commission notified final Tariff Regulation, 2021 on 16.11.2021, on which also certain urgent works, which are directly connected with O&M norms, were to be undertaken. In the meanwhile, Rejoinder affidavit was also to be filed on Appeal No. 27/2021 and 31/2021 before the Hon'ble APTEL. Rejoinder application were submitted on 17.09.2021.

6.7 In view of the above submission, Hon'ble Commission may kindly note that delay filing of truing up petition for 2019-20 was not due to any latches or negligence on the part of the petitioner. There was some procedural delay in getting comments/ remarks/additional details from various offices based on which the petition is prepared.

6.8 Kind attention of the Hon'ble Commission is invited to the judgment dated 23.09.2021 of the Hon'ble Supreme Court of India in MA No. 665 of 2021 in S. M. W. (C) No.3 of 2020, wherein it was ordered that in computing the period of limitation for any suit, appeal, application or proceeding, the period from 15/03/2020 till 02/10/2021 shall stand excluded. Hon'ble Apex Court further ordered that all persons shall have a limitation period of 90 days from 03/10/2021.

6.9 Hon'ble Commission, as per letter 2515/Con (F) /2021/KSERC/1105 dated 22.12.2021 was pleased to extend the time limit for submitting truing up petitions for 2019-20 and 2020-21 up to 05.01.2022. In view of the above, Hon'ble Commission may kindly condone the delay of 2 days in filing the petition.

Prayer

KSEBL humbly requests before the Hon Commission that:

- (1) Truing up of Expenses and Revenue as per the Audited Accounts of KSEBL for the year 2019-20 as explained in this petition may kindly be approved, in view of the care and caution taken by the Board for carrying out the functions of the Board as a public utility as per the statutory provisions under the Electricity Act, 2003 and also as per the directions, orders and regulations issued by the Hon'ble Commission, policies and directions issued by the State and Central Government and other statutory bodies within the provisions of the Electricity Act-2003.
- (2) The revenue gap as per the petition may be accounted as regulatory asset or any other appropriate means deemed fit by the Hon'ble Commission according to the provisions of law.

On Behalf of KSEB limited



**Chief Engineer
Commercial & Tariff**

