BEFORE THE HONOURABLE
KERALA STATE ELECTRICITY REGULATORY COMMISSION
At its office at C V Raman Pillai Road, Vellayambalam, Thiruvananthapuram

FILING No	
CASE No	
IN THE MATTER OF :	Truing up of Cost and Revenue of Generation, Transmission and Distribution Strategic Business Units of the Kerala State Electricity Board (KSEBL) for the year 2016-17. AND
IN THE MATTER OF :	Kerala State Electricity Board Limited, Vydyuthi Bhavanam, Pattom, Thiruvananthapuram – 4
	APPLICANT
	DEPUTY CHIEF ENGINEER (COMMERICAL AND PLANNING) With full powers of Chief Engineer Kerala State Electricity Board Limited

AFFIDAVIT VERIFYING THE APPLICATION ACCOMPANYING THE PETITION FOR TRUING UP OF COST AND REVENUE FOR THE YEAR 2015-16

I, **B. PRADEEP**, son of Sri. P. Balachandran, aged 52 years residing at Vipanchika, Anayara P O, Thiruvananthapuram do solemnly affirm and say as follows:

I am working as Deputy Chief Engineer (Commercial & Planning) with full powers of Chief Engineer, 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 25th day of June 2018 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

Deputy Chief Engineer (Commercial & Planning)
With full powers of Chief Engineer
Kerala State Electricity Board Limited,
Vydyuthi Bhavanam, Pattom
Thiruvananthapuram – 695 004

VERIFICATION

I, the above named deponent, solemnly affirm at Thiruvananthapuram on this, the 25th day of June 2018 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

Deputy Chief Engineer (Commercial & Planning)
With full powers of Chief Engineer
Kerala State Electricity Board Limited
Vydyuthi Bhavanam, Pattom
Thiruvananthapuram – 695 004.

Solemnly affirmed and signed before me.

Advocate and Notary:

<stamp> and <Seal>

BEFORE THE HONOROUBLE
KERALA STATE ELECTRICITY REGULATORY COMMISSION

In the matter of : Truing up of Cost and Revenue of Generation, Transmission and Distribution Strategic Business Units of the Kerala State Electricity Board (KSEBL) for the year 2016-17.

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 September 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 regulation 2003, National Tariff Policy, Tariff Regulations of CERC and ESSAR of 1985, until 2014-15.

1.2 The Hon Commission notified new regulation for determination of Tariff, in 2014 after repealing the earlier regulations, with a three year control period starting from FY 2015-16. The regulations brought in a performance based approval scheme along with a framework for sharing Gains and Losses and specifying the controllable and un-controllable factors. However, the methodology followed for fixing norms, deviated substantially from the provisions of the Act 2003, National Tariff Policy guidelines, CERC regulations and APTEL orders.

1.3 Since the norms in the regulations would result in under recovery of genuine expenditure and derail the finances, the petitioner, was constrained to move the Hon High Court of Kerala in the matter. The Hon High Court, in an interim order dated 07-Jan-2015, on the Petition (WP(C) 465/2015), ordered not to reject the Tariff Petition filed by this petitioner.

1.4 Meanwhile, Hon Commission initiated process for suo-moto determination of ARR&ERC and Tariff of the petitioner for FY 2016-17 and FY 2017-18 on 22.06.2016 and invited response from stakeholders. The petitioner had submitted its response to the proceedings of the Commission vide letter dated 26.07.2016. The petitioner had also participated in the subsequent public hearing conducted by the Hon Commission. Hon Commission issued its final order on 17.04.2017.

1.5 Hon High Court by the final judgement dated 28-02-2018 has disposed the petition WP(C) 465/2015, directing *to pass orders on the application of the petitioner for truing up of accounts for the year 2015-16, 2016-17, 2017-18 with due regards to the findings in Ext P6 Judgment and consequential orders passed by the commission for 2010-11 onwards in the case of the petitioner.*

1.6 Therefore, now, the petitioner submits this truing up petition for FY 2016-17 in accordance with Tariff Regulation of 2014. The prescribed formats in the regulation have been followed in this petition. The accounts for the three Business Units are separately filed along with this petition. The petitioner reasonably anticipates that Hon Commission would revisit the norm in the 2014 Regulation in view of the order on WPC 465/2015 of the Hon High Court.

1.7 **Indian Accounting Standards (Ind AS) Compliance**: The petitioners Accounts till 31-March-2016 were prepared line with IGAAP accounting standards and applicable provisions of Companies Act and Electricity Act, 2003. However, the Annual Accounting statements for FY 2016-17 were prepared in compliance with IND AS notified by the Ministry of Corporate Affairs on 16th February 2015. This standard converges with International Financial Reporting Standards (IFRS). The adoption of Ind AS entails a significant change in the financial reporting framework used by Indian companies to report their financial results.

As the net worth of Kerala State Electricity Board Limited is more than Rs.500 Cr, KSEBL has to mandatorily apply the provisions of Ind AS in the preparation of Financial Statements for accounting periods beginning on or after 1st April 2016. Ind AS has some significant business consequences and the Change process was a major one. This required substantial preparation and training effort. Therefore, KSEBL engaged an experienced Chartered Accountant Firm as Ind AS Implementation Consultant and finalized accounts for 2016-17**.**

The transitional provisions given in each of the standards under IFRS have not been given in Ind AS, since all transitional provisions related to Ind AS, wherever considered appropriate, have been included in Ind AS 101, 'First-time adoption of Indian Accounting Standards' (corresponding to IFRS 1). KSEBL followed the enabling provisions of IND AS 101 in restating the opening balance sheet in Ind AS framework as of the date of transition ie 01.04.2015. The difference in IND AS and GAAP accounting policies necessitated adjustments, which were restated in the balances as on 01.04.2015. The basic requirement of Ind AS 101 is for full retrospective application of all Ind AS, effective at the reporting date. Comparative information is prepared and presented on the basis of Ind AS. Almost all adjustments arising from the first-time application of Ind AS are adjusted against opening retained earnings (or, if appropriate, another category of equity) of the first period that is presented on an Ind AS basis.

Thus, a reconciliation of Balance sheet items as reported under I GAAP and IND AS from 2014-15 to 2016-17 is disclosed in page 10 of the Annual Financial Statements for FY 2016-17. Further reconciliation of profit or loss as reported under I GAAP and IND AS for FY 2015-16 and FY 2016-17 is furnished in page 11 of the Annual Financial Statements for 2016-17.

The impact of this account transition is further described in detail in **Chapter 5: General explanation of Various Accounts**.

1.8 The summary of the audited Annual statement of Accounts of the Board for the year 2016-17 vis-à-vis the amount approved by Hon Commission in the order on the ARR&ERC is furnished in the Table – 1.1 given below. The Statutory Auditors of KSEBL has conducted audit and issued certificate for the year 2016-17 and a copy of the audited accounts is submitted separately along with this petition.

Table-1.1: Comparison of ARR, ERC and Revenue Gap for 2016-17 (Rs. Cr.)					
No	Particulars	Approved*	Audited	Truing up	Difference
1	ARR	11741.84	13114.24	13678.87	1937.03
2	ERC	11341.72	11619.61	11574.28	232.56
3	**Revenue gap (1-2)**	**400.12**	**1494.63**	**2104.59**	**1704.47**
**Approved Vide Tariff Order No.1007/F&T/2016/KSERC/dt.17-April-2017*					

The difference between audited accounts and true-up values are mainly due to inclusion of Return on Equity, claw back depreciation, IND AS adjustment impact and un disbursed interest on security deposit in the truing-up values. The matter is clearly explained in 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				
No	**Particulars**	**SBU-G**	**SBU-T**	**SBU-D**
1	ARR	491.60	773.52	13621.18
2	ERC / Transfer Value	695.23	991.11	11516.59
3	**Revenue surplus (gap) (2-1)**	**203.63**	**217.59**	**2104.59**

Following chapters in this petition describe the Actual Expenses and Revenue of the petitioner in FY 2016-17 and the comparison with respective approved values.

____

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

2.1 Energy generated and purchased by the petitioner to meet the demand in the year totals to **22,325.95 MU.** Energy generated by the petitioner's Generation Business Unit was **4369.54 MU** (19.6%) out of which 4319.08 MU was from own Hydroelectric Stations and remaining 1.15% was generated from thermal, wind and solar stations. Source wise generation details are enclosed as Table-G1 below**.** Details of energy generated and expenses are furnished in paragraphs hereunder.

Table – G1 : Energy Generation from own stations for FY 2016-17 (MU)			
Source	**KSERC approval**	**Audited Accounts**	**Difference**
Gross Generation			
Hydro	4400	4319.08	-80.92
BDPP	0	5.535	5.535
KDPP	0	38.01	38.01
Wind	0	1.71	1.71
Solar	0	5.20	5.20
Subtotal	**4400**	**4369.535**	**-30.465**
Aux consumption			
Hydro	23.13	26.97	3.84
BDPP		0.94	0.94
KDPP		1.67	1.67
Wind		0.0012	0.0012
Solar		0.0345	0.0345
Sub total	**23.13**	**29.6157**	**6.4857**
Net Generation			
Hydro	4376.87	4292.11	- 84.76
BDPP	0	4.59	4.59
KDPP	0	36.34	36.34
Wind	0	1.71	1.71
Solar	0	5.1655	5.1655
Subtotal	**4376.87**	**4339.9155**	**-36.9545**

2.2 Hydro Generation: During 2016-17 there was heavy shortfall in monsoon rains. Inflow obtained was only for **3703.63 MU** against **6876 MU** anticipated. This was only 53.86% of anticipated. Approved net hydro generation was **4376.87 MU** (order dated 17.04.2017) against which the net actual hydro generation is only **4292.11 MU. This is** 84.76 MU (1.94%) less than the approval. Month wise details of hydel generation and station wise generation details are given in Table-G2 and G3 respectively hereunder.

Table-G2 : Hydel Generation for FY 2016-17 (MU)							
Month	**Generation**	**Aux Consumption**	**Net hydro Generation**	**Month**	**Generation**	**Aux Consumption**	**Net hydro Generation**
Apr-16	568.42	2.57	565.85	Oct-16	362.75	2.24	360.51
May-16	385.96	2.32	383.64	Nov-16	246.41	1.77	244.64
Jun-16	340.06	2.25	337.82	Dec-16	225.10	2.24	222.86
Jul-16	436.06	2.92	433.15	Jan-17	213.47	1.51	211.96
Aug-16	442.62	2.90	439.72	Feb-17	240.34	1.52	238.82
Sep-16	432.24	2.38	429.86	Mar-17	425.65	2.36	423.29
				Total	**4319.08**	**26.97**	**4292.11**

Table-G3 : Station Wise Hydel Generation for 2016-17					
No	Hydro Electric Stations	Generation (MU)	No	Hydro Electric Stations	Generation (MU)
1	Idukki	1379.05	18	Urumi	9.03
2	Sabarigiri	797.83	19	Chembukadav I & II	8.64
3	Kuttiady (Units :1 - 6)	465.44	20	Kuttiady Tail Race	6.35
4	Lower Periyar	308.22	21	Ranni-Perinadu	5.85
5	Neriamangalam+NES	196.25	22	Addyanpara	5.01
6	Poringalkuthu + PLBE	194.94	23	Peppara	3.95
7	Edamalayar	171.96	24	Vellathuval SHEP	3.05
8	Sholayar	167.11	25	Lower Meenmutty	2.48
9	Pallivasal	166.01	26	Madupetty	2.3
10	Kakkad	130.63	27	Chimony	1.56
11	Sengulam	115.58	28	Malampuzha	0.63
12	Panniar	62.17	29	Peechi	0.4
13	Kallada	44.36		**KSEB Hydro (TOTAL)**	**4319.08**
14	Malankara	24.74			
15	Barapole	19.32		Aux Consumption (MU)	26.97
16	Vilangad	15.78		**Net Generation in MU**	**4292.11**
17	Poozhithode	10.45		Auxiliary consumption %	0.6244

2.3 Thermal Generation: Approval was not granted for generation from KSEBL's own thermal power plants, BDPP and KDPP for the year 2016-17, as per order dated 17.04.2017. But KSEBL was forced to generate 43.55 MU - gross (**40.93 MU** net) from these stations together in 2016-17 and **14.93 MU** from RGCCPP in April 2016 (4 days) due to certain special circumstances. RGCCPP was not scheduled any further.

During April 2016, the consumption showed an unprecedented rise due to severity of summer and social factors arising out of general elections. Demand during day time had risen to a range of 3300 MW to 3400 MW. Support of hydro power alone was insufficient. Consumption was as high as 2273 MU with highest ever peak demand of 4004 MW on 27.04.2016. Maximum consumption touched 80 MU during April 2016. In addition there was reduction in energy available for import due to outage of CGS (as given in **Table-G4** below). Purchase from *Day-Ahead-Market* (DAM) had to be limited due to non availability of sufficient quantum and insufficient import capacity (2400 MW). These also aggravated the situation.

Table-G4 : Outages of CGS				
No	**Station**	**Outage From**	**To**	**Reason**
1	KAIGA#1	12.4.16 (00:30)	7.5.16	Annual maintenance
2	KAIGA#3	03.05.16(22:53)	05.06.16	Generator static earth fault
3	NLC TS II EXP.2	10.05.16(00:56)	20.05.16	Steam leakage
4	NLC-II EXP.1	16.04.16(00:39)	27.04.16	Boiler side problem
5	NLC-II EXP.1	25.04.16(03:28)	27.04.17	GT Buchholz relay acted
6	Talcher #3	30.04.16(00:04)		Fire Protection Acted
7	Kudamkulam#1	30.04.16(20:11)	30.04.16 (23:43)	Turbine Tripped
8	VALLUR#3	20-05-2016(12:38)	21.05.16	High vibration
9	VALLUR#1	30.05.16(10:38)	31.05.16	Boiler Turbine Leakage
10	RSTPS #6	31.05.16 (16:47)		Boiler Turbine Leakage

It was also necessary to keep KDPP ready to meet contingency situations all along the year. Therefore KDPP was scheduled in the remaining months also for short periods for testing purposes.

Gross shortfall during April and May 2016 were 174.48 MU and 126.14 MU respectively, as given in **Table-G5** below. But due to reasons stated above only 128.13 MU and 118.79 MU respectively could be imported from Day-Ahead-Markets in April and May.

Under these contingencies KSEBL had no other option than to schedule BDPP, KDPP and RGCCPP during the year for managing power demand without imposing load shedding.

Table-G5 : Shortfall in energy availability in April & May 2016 (Energy in MU)								
Month	Demand	Hydro	wind & solar	CGS	Small IPPs	Contracted traders	Total	shortfall
Apr-16	2273.67	565.85	0.23	904.68	16.08	612.98	2099.82	174.48
May-16	2095.85	383.64	0.23	913.31	15.05	657.49	1969.71	126.14

Scheduling of energy from various sources for meeting contingency is summarised in **Table-G6** below.

Table-G6 :- Energy scheduled from various sources for meeting deficit (MU)							
Month	Shortfall	Exchanges	DSM	SWAP	KDPP	BDPP	RGCCP
Apr-16	174.48	64.79	63.03	0.31	27.37	4.06	14.93
May-16	126.14	57.78	60.73	0.28	7.05	1.09	-0.79

Month wise detail of generation from BDPP and KDPP is given in **Table-G7**. Negative figures in the tables show the net energy drawn by these plants from KSEBL grid. The generation operational parameters are furnished in **Form G 2.2** and Plant characteristics in **Form G 2.1**.

Table-G7 : Generation from BDPP and KDPP (MU)						
Month	BDPP	KDPP		Month	BDPP	KDPP
Apr-16	4.06	27.37		Nov-16	-0.06	0.38
May-16	1.09	7.05		Dec-16	-0.07	0.29
Jun-16	-0.04	-0.1		Jan-17	-0.06	-0.07
Jul-16	-0.05	0.11		Feb-17	-0.06	0.01
Aug-16	-0.06	0.27		Mar-17	-0.04	0.66
Sep-16	-0.07	-0.06				
Oct-16	-0.06	0.42		**Total**	**4.59**	**36.34**

Details of scheduled power purchase from RGCCPP are given in **Appendix D-6** of the Distribution Business Unit. These issues have already been communicated to the Hon. Commission vide letter dated 26.07.2016, 08.09.2016, and 17.01.2017.

The summary of the generation and cost from BDPP and KDPP and comparison with approval is given below.

Table G8 : Gross generation and cost from BDPP & KDPP								
Plant	KSERC approved			Actual			Difference	
	Quantity (MU)	Rate (Rs/kWh)	Amount (Rs. Cr)	Quantity (MU)	Rate (Rs/kWh)	Amount (Rs. Cr)	Quantity (MU)	Amount (Rs. Cr)
BDPP	…	…	…	4.59	8.6	3.95	4.59	
KDPP	…	…	…	36.34	5.37	19.50	36.34	
Total	…	…	…	**40.93**	**…**	**23.45**	**40.93**	**23.45**

2.4 The actual ARR, ERC for the Generation Business Unit are furnished in **Form G-P&L.** The ARR is inclusive of RoE (@ 14% of Rs. 203.63 Cr) taken as per the Order dated 17-Apr-2017. A statement showing comparison of ARR & ERC approved by the Hon Commission and actual for the year along with deviations are furnished below. Item wise explanation is furnished thereafter.

Table–G9 : COMPARISON OF GENERATION SBU ARR (Rs Cr)					
No	**Particulars**	**2015-16**	**Approved 2016-17**	**TU 2016-17**	**Difference**
1	Cost of Generation of Power	104.26	0.00	23.45	23.45
2	Interest & Finance Charges	46.32	220.84	50.05	-170.79
3	Depreciation	122.05	172.43	188.79	16.36
4	O&M Expenses *(Excl terminal benefits)*	143.88	75.71	128.55	52.84
5	RoE (14% of Rs 1454.53 Cr)	203.63	203.63	203.63	0.00
6	Other debit and prior period income	-7 .96	0.00	41.16	41.16
7	Terminal benefits	40.62		81.83	81.83
8	ARR	652.8	672.61	717.46	44.85
9	Less Non-Tariff Income	19.43	0.00	22.23	22.23
10	**Net ARR** (Transferred to SBU-D)	**633.37**	**672.61**	**695.23**	**22.62**

2.5 Cost of generation of power: Rs.23.45 Cr was actually incurred during the year towards power generated from liquid fuel stations owned by KSEBL as detailed in preceding paragraphs.

2.6 Interest and Finance charges: The difference between approved and actual interest and finance charges was 170.79 Cr as detailed below:

Table G10 : Interest and Finance charges (Rs Cr)				
No	**Particulars**	**Approved**	**Actual**	**2015-16**
1	Interest on Outstanding Capital Liabilities	171.62	50.05	49.63
2	Interest on GPF	6.76	...	...
3	Other Interests	0.52	...	...
4	Interest on Master Trust Bonds	41.94	...	...
5	**Total**	**220.84**	**50.05**	**49.63**

(i) The following factors caused deference between actual figures from approved values: (1) Hon Commission considered Rs. 1560.18 Cr as the loan share of SBU-G as on 31-03-2016 based on the GFA of SBU-G as on 31-10-2013. Interest @ 11% was approved on this amount (2). However as per the methodology adopted by KSEBL, which is detailed in chapter 5, for segregation of Loans and interest, the loan amount of SBUG is Rs. 1795.56 Cr and Interest thereon is Rs. 50.05 Cr (2) The Master Trust Bond could not be issued in FY2016-17 and the corresponding interest of Rs 41.94 Cr has not been incurred that year. (3) Other interest and interest on PF has been assigned to SBU-D as per accounts. Hon Commission may please note that the interest on loans as per account is net of capitalised portion of interest applicable to capital works in progress.

(ii) Capital works amounting to Rs. 176.56 Cr were executed during the year. Details are given in Chapter 5.

(iii) Hon'ble Commission may kindly note that KSEBL is consistently capitalizing interest and other charges attributable to capital works in progress and such amount is not claimed as expenditure in the ARR or Truing up petitions. Thus, Regulation 25 of KSERC (Terms and Conditions of Tariff) Regulation 2014, which stipulates that interest during construction would be considered under capital cost and would not be allowed under interest and finance charges, which is fully complied with by KSEBL.

(iv) During 2016-17, SBU G had capitalized Rs.7.42 Cr from interest on loans (out of total interest on loans Rs.57.47 Cr) in true spirit of the regulation which stipulates that interest during construction would form part of the capital value of the assets created. In addition, employee cost and A&G expenses were also capitalized to the extent of Rs.76.28 crore and Rs.13.01 Cr respectively.

2.7 O&M of SBU-G: The actual O&M expenses of the generation Business Unit was **Rs 128.55 Cr**. Component wise details are given in the **Table-G11** below and detailed in Form G4. Hon Commission had approved only **Rs 75.71 Cr** as O&M expenses based on the norms in the Tariff Regulation 2014. It is submitted that, these norms may please be revisited by the Hon Commission based on the Judgement of the Hon High Court of Kerala in WP(C) 465 / 2015 as pleaded in **Para 1.5 & 1.6** in introductory Chapter in this petition. In this regard, Hon Commission may please note that the hydro stations of the Petitioner are comparatively older than NHPC stations. The total approved O&M cost of 12 hydro stations of NHPC with total installed capacity of 4015 MW is Rs. 1196.46 Cr for 2016-17 [Regulation 29(4) of CERC Tariff Regulations, 2014]. The O&M cost of petitioner's older plants has to be higher on account of high wear and tear, difficulty in getting spares and high cost of spares thereof etc. However, the actual O&M cost of Petitioner's plants are much lower than that of NHPC stations. When compared to CERC norms as given above, the actual O&M expenses of KSEBL's 34 hydro stations of 2046 MW capacity and 2 thermal stations of 159.96 MW comes to only Rs.210.38 Cr only, a fraction of that allowed by CERC. Hon Commission may please consider this fact and allow actual O&M costs.

Table – G11 : O&M Cost components (Rs Cr)

No	Particulars	Approved	Actual	Difference	Prev Year
1	Employee Cost	NA	91.16	NA	101.55
2	A&G Expenses	NA	9.69	NA	16.31
3	R&M Expenses	NA	27.70	NA	26.02
4	**Sub total**	**75.71**	**128.55**	**NA**	**143.88**
5	Terminal benefits	NA	81.83	NA	40.62
6	**Total**	**NA**	**210.38**	**134.67**	**184.50**

The following new generating stations were commissioned after March 31, 2014. Hon Commission may please consider the O&M expenditure of these plants in addition to the normative O&M considered in the Regulation. Since Master Trust bonds for terminal liabilities has been issued only on 01.04.2017, the terminal liabilities for 2016-17 may be allowed over and above the O&M expenses.

Table – G12 : New SH Generating stations Commissioned

Project	CoD	Capacity-MW	Energy-MU	Capital cost (RS Cr)	Addl. O&M cost (Cr)
Vilangad	26-07-2014	7.5	22.53	75.83	1.699
Chimmony	22-05-2015	2.5	6.70	14.58	0.3086
Adyanpara	03-09-2015	3.5	9.01	34.38	0.7278
Barapole	29-02-2016	15	36.00	127.50	2.699
Vellathuval	08-09-2016	3.6	12.17	39.67	0.8398
Total		**32.1**	**86.41**	**291.96**	**6.2747**

Apart from this, KSEBL had installed and commissioned solar generating plants with aggregate capacity of 9.06 MW after March 31, 2014. Design energy of these plants comes to 12.705MU. Capital cost for these installations is Rs 77.5206 Cr. Details are furnished in Table- G13

Table – G13 : New Solar Generating stations Commissioned

Project	CoD	Capacity (MW)	Dessign Energy (MU)	**Capital cost (Rs.Cr)**	**Addl. O&M cost(Rs.Cr)**
Kanjikode	28.08.2015	1	1.4016	6.99	0.147978
Chaliyur	31.08.2015	0.096	0.1346	1.0946	0.023173
Peringalkuthu	10.09.2015	0.05	0.07008	0.4375	0.009262
Banasurasagar Floating	21.01.2016	0.5	0.7008	9.25	0.195823
Banasurasagar(tree,flower)	21.01.2016	0.003372	0.00473	0.2517	0.005328

Kollamcode	08.08..2016	1	1.4016	6.75	0.09
Padinjarethara	29.08.2016	0.44	0.56064	4.293	0.050085
Edayar	05.09.2016	1.25	1.752	8	0.093333
Palakkad Adivasi colony (5)	30.11.2016	0.047	0.06588	1.08	0.0072
Barapole Canal Bank	07.11.2016	1	1.4016	6.75	0.05625
Palakkad Adivasi colony (2)	30.11.2016	0.018	0.02523	0.7608	0.005072
Barapole canal top	17.11.2016	3.0	4.2048	25.983	0.17322
Roof Top various locations	By Mar 2017	0.7	0.9811	5.88	0.0588
Total		**9.10**	**12.705**	**77.5206**	**0.915524**

2.8 Depreciation: Hon Commission considered GFA as on 01.04.2014 for KSEBL and approved depreciation based on Regulations at **Rs. 601.17 Cr**. Hon Commission, after reducing the depreciation attributable to Consumer contribution and grants, of Rs. 186.37 Cr, allocated the resultant depreciation of Rs. 414.80 Cr among SBUs in GFA ratio as on 31.10.2013. **Rs. 172.43 Cr** was approved for SBU G. Actual depreciation for the Generation assets for the year 2016-17 is **Rs.188.79 Cr**. The difference is because of the asset addition in 2014-15 and 2015-16, impact of fully depreciated assets. Depreciation as per IND AS accounts vary with the amount claimed in this petition as detailed in Chapter 5.

2.9 Return on Equity: Return on equity @14% on equity allocated to Generation SBU, as per the Hon Commission order dated 17-Apr-2017, comes to Rs.203.63 Cr as detailed in **Form G6.9.**

2.10 Other debits, fair value adjustments and Prior period expenses / income: Other expenses for the year have been Rs. 0.35 Cr. During the year there have been net expenses of Rs. 41.76 Cr under prior period transactions. Income on account of fair valuation as per IND AS is **Rs.0.95 Cr**. Hence, after adjusting fair value adjustments from other debits from prior period expenses, net expenses under this head works out to **Rs. 41.16 Cr**. Other debits include Material cost Variance, R&D Expenses, Bad Debts and Misc Losses Written-off. Material cost variance represents the difference between actual rate at which material was procured and standard rate at which materials are issued. Bad and doubtful debts written off/ provided for represent withdrawal of credits to revenue in earlier years. The miscellaneous losses and write off represent the compensation paid to staff and outsiders for injuries, death and danger. Prior period charges include both income as well as expenses relating to earlier years. These three items are described in detail in para 5.5, 5.6 & 5.7 in chapter 5.

2.11 Non tariff income: SBU G was able to collect **Rs.22.23 Cr** under non tariff income as detailed under **Form G3.2**. This includes Income from sale of scrap, interest on advances made to contractors, interest on staff loans and advances, Rent from buildings etc.

2.12 Transfer of Generation Costs: ARR for SBU G for the year 2016-17 is **Rs. 717.46 Cr** and Non tariff income earned is **Rs. 22.23 Cr**. The net expenses of SBU G transferred to SBU-D are **Rs. 695.23 Cr.** This cost is considered as the Cost of own generation in the ARR of SBU-D.

2.13 ARR & Tariff Formats: Formats relating to Generation Business Units as per the Tariff regulation 2014 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.

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

TRUING-UP FORMATS FOR KSEBL -STRATEGIC BUSINESS UNIT –GENERATION FOR FY 2016-17

KERALA STATE ELECTRICITY BOARD LIMITED – STRATEGIC BUSNESS UNIT - GENERATION							
Form G 1.1 : Summary of Tariff Proposal (2016-17)							
No	**Particulars**	**Form**	**Approved**	**Audited**	**Normative**	**Truing Up**	**Remarks**
	2	**3**	**4**	**5**	**6**	**7**	**14**
1	**Capacity Charge**						
1.1	**Annual Fixed Charges**						
1.1.1	O & M Expenses	4	75.71	128.55	NA	128.55	
	Terminal benefits			81.83		81.83	
1.1.2	Depreciation	6.1	172.43	153.74	NA	188.79	
1.1.3	Interest on Loan Capital	6.2	178.90	50.05	NA	50.05	
1.1.4	Interest on Master Trust Bonds to meet Terminal Liabilities	6.2 ©	41.94	0	NA	0	
1.1.5	Interest on Working Capital	6.11	-	0		0	
1.1.6	Return on Equity	6.9	203.63	288.74	NA	203.63	
1.1.7	Tax on ROE	6.12	-	0	NA	0	
1.1.8	Any other item (Other debits & Prior period exp/income)		-	40.26	NA	41.16	
1.1.9	Less: Non-Tariff income	3.2	-	22.23	NA	22.23	
	Total (1.1) Annual Fixed Charges		**672.61**	**720.94**	**NA**	**671.78**	
2	**Total- Energy (variable) charges**		-	23.45	NA	23.45	
3	**Units sold to Discoms (MU)**		-	4339.92			
4	**Rate of Variable Charges**		-	-			
4.1	Rate of Energy Charge Primary Fuel $(REC)_p$	5.3	-	-			
4.2	Total-(2) Rate of Energy Charge ex-bus(REC)	5.1		-			

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION

Form G 1.2 : Aggregate Revenue Requirement (2016-17)

No.	Particulars	Form No	Approved	Audited	Normative	Truing Up	Remarks
1	2	3	4	5	6	7	14
A	**Expenditure**						
1	Variable Costs, including Fuel Cost	5.1		23.45	NA	23.45	
2	Depreciation	6.1	172.43	153.74	NA	188.79	
3	Interest on term Loan & Finance charges	6.2	220.84	50.05	NA	50.05	
4	Return on Equity	6.9	203.63	288.74	NA	203.63	
5	Tax on ROE	6.12	-		NA		
6	Interest on Working Capital	6.11	-		NA		
7	O & M Expenses	4	75.71	128.55		128.55	
	Terminal benefits			81.83		81.83	
9	Other debits & Prior period exp/income		-	40.26	NA	41.16	
	Total- (A) Expenditure		672.61	766.62	NA	717.46	
B	**Receipts**				NA		
1	Revenue from Sale of Power (Tariff income)	3.1	0.00		NA		
2	Non Tariff income	3.2	0.00	22.23	NA	22.23	
3	Revenue Subsidies, Grants & Subvention from Govt.		0.00	---	NA	----	
	Total- (B)		**672.61**	**744.39**	**NA**	**695.23**	
C	**ARR (A-B(2)-B(3))**						

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 2.1 : Plant Characteristics						
name of the Generating station	KOZHIKODE DIESEL POWER PLANT (KDPP)					
Basic characteristics of the plant	Power Plant with Diesel engine as Prime movers					
Special Features of the Plant	NA					
Site Specific Features	NA					
Special Technological Features	NA					
Environmental Regulation related features[4]	NA					
Any other special features	NA					
Fuel Details[5]	Primary Fuel			Secondary Fuel		Alternate Fuel
	LSHS			HSD		Nil
Details	**Unit number**					
	2	3	5	6	7	8
Installed Capacity (IC) in MW	16	16	16	16	16	16
Date of Commercial Operation (COD)	11.09.1999	18.09.1999	30.09.1999	11.09.1999	25.10.1999	06.11.1999
Type of cooling system[6]	Closed Loop					
Type of Boiler Feed Pump[7]	NA	NA	NA	NA	NA	NA
Pressure (kg/cm2)	NA	NA	NA	NA	NA	NA
Temperature 0C	NA	NA	NA	NA	NA	NA
-At Superheater Outlet	NA	NA	NA	NA	NA	NA
-At Reheater Outlet	NA	NA	NA	NA	NA	NA
Turbine Cycle heat Rate(Kcal/ Kwh)	NA	NA	NA	NA	NA	NA
Boiler Efficiency (%)	NA	NA	NA	NA	NA	NA
Guaranteed Design Heat rate (kCal/kWh)8	2014.35	2014.35	2014.35	2014.35	2014.35	2014.35
Conditions on which guaranteed	Optimum load in steady state operation with desired fuel quality					
% MCR	NA	NA	NA	NA	NA	NA
% Makeup	NA	NA	NA	NA	NA	NA
Design Fuel	LSHS	LSHS	LSHS	LSHS	LSHS	LSHS
Design cooling water Temperature	HT-71/LT-37	HT-71/LT-37	HT-71/LT-37	HT-71/LT-37	HT-71/LT37	HT-71/LT-37
Back Pressure						

Note: Unit No.1 and 4 has been decommissioned

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 2.1 : Plant Characteristics			
Name of the Generating station	BRAHMAPURAM DIESEL POWER PLANT (BDPP)		
Basic characteristics of the plant[1]	Diesel Power Plant		
Special Features of the Plant	3 X 20 MW IC Engines		
Site Specific Features[2]			
Special Technological Features[3]			
Environmental Regulation related features[4]			
Any other special features			
Fuel Details[5]	Primary Fuel		Secondary Fuel
	LSHS		HSD
Details	**Units**		
Unit number	1	4	5
Installed Capacity (IC) in MW	21.32	21.32	21.32
Date of Commercial Operation (COD)	06.05.1997	17.12.1997	24.11.98
Type of cooling system[6]	Closed loop		
Type of Boiler Feed Pump[7]	Engine coupled Generator		
Pressure (kg/cm2)	NA	NA	NA
Temperature 0C	NA	NA	NA
-At Superheater Outlet	NA	NA	NA
-At Reheater Outlet	NA	NA	NA
Turbine Cycle heat Rate(Kcal/ Kwh)	NA	NA	NA
Boiler Efficiency (%)	NA	NA	NA
Guaranteed Design Heat rate (kCal/kWh)[8]			
Conditions on which guaranteed			
% MCR	NA	NA	NA
% Makeup	NA	NA	NA
Design Fuel	LSHS/HSD	LSHS/HSD	LSHS/HSD
Design cooling water Temperature			
Back Pressure			

***Note**: Unit No.2 and 3 has been decommissioned*

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION						
Form G 2.2 : Operational Parameters - Generation						
Name of Generating station		**Pallivasal**				
S. No.	**Particulars**	**Units**	**2016-17**			**Remarks**
			Approved	**Audited**	**Truing Up**	
1	2	3	4	5	6	7
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**37.5**	**37.5**	**37.5**	
	AFC		**-**			
	Capacity Charge		**-**			
	Energy charge rate		**-**			
1.2	NAPAF	%	**90**			
1.3	Actual/Projected Annual Plant Availability Factor	%	**-**	**90.32**	**90.32**	
1.4	Design Energy	MU	**284**	**-**	**-**	
1.5	Gross Generation	MU	**226.52**	**166.01**	**166.01**	
1.6	Auxiliary Energy Consumption	%	**1**	**0.290**	**0.290**	
1.7	Auxiliary Energy Consumption	MU	**2.27**	**0.481304**	**0.481304**	
1.8	Net Generation	MU	**224.25**	**165.528696**	**165.528696**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION						
Form G 2.2 : Operational Parameters - Generation						
Name of Generating station		**Sengualm**				
S. No.	**Particulars**	**Units**	**2016-17**			**Remarks**
			Approved	**Audited**	**Truing Up**	
1	**2**	**3**	**4**	**5**	**6**	**7**
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**51.2**	**48**		
	AFC		**-**			
	Capacity Charge		**-**			
	Energy charge rate		**-**			
1.2	NAPAF	%	**90**			
1.3	Actual/Projected Annual Plant Avail Factor	%	**-**	**90.2**	**90.2**	
1.4	Design Energy	MU	**182**	**-**	**-**	
1.5	Gross Generation	MU	**145.17**	**115.58**	**115.58**	
1.6	Auxiliary Energy Consumption	%	**0.15**	**5.740**	**5.740**	
1.7	Auxiliary Energy Consumption	MU	**0.22**	**6.634**	**6.634**	
1.8	Net Generation	MU	**144.95**	**108.9459**	**108.9459**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 2.2 : Operational Parameters - Generation						
Name of Generating station			Neriamangalam			
S. No.	Particulars	Units	2016-17			Remarks
			Approved	Audited	Truing Up	
1	2	3	4	5	6	7
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**52.65 + 25**	**52.65**	**52.65**	
	AFC		**-**			
	Capacity Charge		**-**			
	Energy charge rate		**-**			
1.2	NAPAF	%				
1.3	Actual/Projected Annual Plant Availability Factor	%	**-**	**88.27**	**88.27**	
1.4	Design Energy	MU	**237 + 58.27**	**-**	**-**	
1.5	Gross Generation	MU	**189.03 + 46.48**	**196.25**	**196.25**	
1.6	Auxiliary Energy Consumption	%	**0.18**	**0.291**	**0.291**	
1.7	Auxiliary Energy Consumption	MU	**0.424**	**0.571832**	**0.571832**	
1.8	Net Generation	MU	**235.086**	**195.6782**	**195.6782**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 2.2 : Operational Parameters - Generation						
Name of Generating station		**Panniyar**				
S. No.	**Particulars**	**Units**	**2016-17**			**Remarks**
			Approved	**Audited**	**Truing Up**	
1	**2**	**3**	**4**	**5**	**6**	**7**
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**32.4**			
	AFC		**-**			
	Capacity Charge		**-**			
	Energy charge rate		**-**			
1.2	NAPAF	%	**89**			
1.3	Actual/Projected Annual Plant Availability Factor	%	**-**	**82.34**	**82.34**	
1.4	Design Energy	MU	**158**	**-**	**-**	
1.5	Gross Generation	MU	**126.02**	**62.17**	**62.17**	
1.6	Auxiliary Energy Consumption	%	**0.53**	**0.747**	**0.747**	
1.7	Auxiliary Energy Consumption	MU	**0.67**	**0.46467**	**0.46467**	
1.8	Net Generation	MU	**125.35**	**61.70533**	**61.70533**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 2.2 : Operational Parameters - Generation						
Name of Generating station		Poringalkkuthu				
S. No.	Particulars	Units	2016-17			Remarks
			Approved	Audited	Truing Up	
1	2	3	4	5	6	7
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**32 + 16**	**36 + 16**	**36 + 16**	
	AFC		-	-	-	
	Capacity Charge		-	-	-	
	Energy charge rate		-	-	-	
1.2	NAPAF	%	**89**	-	-	
1.3	Actual/Projected Annual Plant Availability Factor	%	-	**73.88**	**73.88**	
1.4	Design Energy	MU	**170 + 74**	-	-	
1.5	Gross Generation	MU	**135.59 + 59.02**	**194.94**	**194.94**	
1.6	Auxiliary Energy Consumption	%	**0.44**	**0.499**	**0.499**	
1.7	Auxiliary Energy Consumption	MU	**0.8563**	**0.973505**	**0.973505**	
1.8	Net Generation	MU	**193.7537**	**193.966495**	**193.966495**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION **Form G 2.2 : Operational Parameters - Generation**						
Name of Generating station		**Sholayar**				
S. No.	**Particulars**	**Units**	**2016-17**			**Remarks**
			Approved	**Audited**	**Truing Up**	
1	2	3	4	5	6	7
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**54**	**-**	**-**	
	AFC		**-**	**-**	**-**	
	Capacity Charge		**-**	**-**	**-**	
	Energy charge rate		**-**	**-**	**-**	
1.2	NAPAF	%	**89**	**-**	**-**	
1.3	Actual/Projected Annual Plant Availability Factor	%	**-**	**83.59**	**83.59**	
1.4	Design Energy	MU	**233**	**-**	**-**	
1.5	Gross Generation	MU	**185.84**	**167.11**	**167.11**	
1.6	Auxiliary Energy Consumption	%	**0.18**	**0.538**	**0.538**	
1.7	Auxiliary Energy Consumption	MU	**0.33**	**0.898544**	**0.898544**	
1.8	Net Generation	MU	**185.51**	**166.21146**	**166.21146**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 2.2 : Operational Parameters - Generation						
Name of Generating station		Sabarigiri				
S. No.	Particulars	Units	2016-17			Remarks
			Approved	Audited	Truing Up	
1	2	3	4	5	6	7
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**335**	**340**	**340**	**Capacity of Unit 4 enhanced from 55MW to 60MW on 06.05.14**
	AFC		-	-	-	
	Capacity Charge		-	-	-	
	Energy charge rate		-	-	-	
1.2	NAPAF	%	**90**	-	-	
1.3	Actual/Projected Annual Plant Availability Factor	%	-	**85.67**	**85.67**	
1.4	Design Energy	MU	**1338**	-	-	
1.5	Gross Generation	MU	**1067.21**	**797.83**	**797.83**	
1.6	Auxiliary Energy Consumption	%	**0.22**	**0.392**	**0.392**	
1.7	Auxiliary Energy Consumption	MU	**2.35**	**3.125688**	**3.125688**	
1.8	Net Generation	MU	**1064.86**	**794.7043**	**794.7043**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION						
Form G 2.2 : Operational Parameters - Generation						
Name of Generating station		**Kuttiyadi**				
S. No.	**Particulars**	**Units**	**2016-17**			**Remarks**
			Approved	**Audited**	**Truing Up**	
1	2	3	4	5	6	7
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**225**	**225**	**225**	
	AFC		-	-	-	
	Capacity Charge		-	-	-	
	Energy charge rate		-	-	-	
1.2	NAPAF	%	**90**	-	-	
1.3	Actual/Projected Annual Plant Availability Factor	%	-	**88.22**	**88.22**	
1.4	Design Energy	MU	**566**	-	-	
1.5	Gross Generation	MU	**451.45**	**465.44**	**465.44**	
1.6	Auxiliary Energy Consumption	%	**0.24**	**0.427**	**0.427**	
1.7	Auxiliary Energy Consumption	MU	**1.08**	**1.986276**	**1.986276**	
1.8	Net Generation	MU	**450.37**	**463.4537**	**463.4537**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION						
Form G 2.2 : Operational Parameters - Generation						
Name of Generating station			**Idukki**			
S. No.	**Particulars**	**Units**	**2016-17**			**Remarks**
			Approved	**Audited**	**Truing Up**	
1	**2**	**3**	**4**	**5**	**6**	**7**
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**780**	**780**	**780**	
	AFC		**-**	**-**	**-**	
	Capacity Charge		**-**	**-**	**-**	
	Energy charge rate		**-**	**-**	**-**	
1.2	NAPAF	%	**90**			
1.3	Actual/Projected Annual Plant Availability Factor	%		**88.43**	**88.43**	
1.4	Design Energy	MU	**2398**	**-**	**-**	
1.5	Gross Generation	MU	**1912.68**	**1379.05**	**1379.05**	
1.6	Auxiliary Energy Consumption	%	**0.53**	**0.554**	**0.554**	
1.7	Auxiliary Energy Consumption	MU	**10.14**	**7.636226**	**7.636226**	
1.8	Net Generation	MU	**1902.54**	**1371.414**	**1371.414**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION						
Form G 2.2 : Operational Parameters - Generation						
Name of Generating station		**Idamalayar**				
S. No.	**Particulars**	**Units**	**2016-17**			**Remarks**
			Approved	**Audited**	**Truing Up**	
1	2	3	4	5	6	7
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**75**	**75**	**75**	
	AFC		**-**	**-**	**-**	
	Capacity Charge		**-**	**-**	**-**	
	Energy charge rate		**-**	**-**	**-**	
1.2	NAPAF	%	**77**	**-**	**-**	
1.3	Actual/Projected Annual Plant Availability Factor	%		**88.62**	**88.62**	
1.4	Design Energy	MU	**380**	**-**	**-**	
1.5	Gross Generation	MU	**303.09**	**171.96**	**171.96**	
1.6	Auxiliary Energy Consumption	%	**0.1**	**0.137**	**0.137**	
1.7	Auxiliary Energy Consumption	MU	**0.3**	**0.236264**	**0.236264**	
1.8	Net Generation	MU	**302.79**	**171.7237**	**171.7237**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION						
Form G 2.2 : Operational Parameters - Generation						
Name of Generating station			**Lower Periyar**			
S. No.	**Particulars**	**Units**	**2016-17**			**Remarks**
			Approved in Tariff Order	**Audited**	**Truing Up requirement**	
1	2	3	4	5	6	7
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**180**	**180**	**180**	
	AFC		-		-	
	Capacity Charge		-		-	
	Energy charge rate		-		-	
1.2	NAPAF	%			-	
1.3	Actual/Projected Annual Plant Availability Factor	%	-	**87.74**	**87.74**	
1.4	Design Energy	MU	**493**	-	-	
1.5	Gross Generation	MU	**393.22**	**308.22**	**308.22**	
1.6	Auxiliary Energy Consumption	%	**0.13**	**0.684**	**0.684**	
1.7	Auxiliary Energy Consumption	MU	**0.51**	**2.10917**	**2.10917**	
1.8	Net Generation	MU	**392.71**	**306.1108**	**306.1108**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION						
Form G 2.2 : Operational Parameters - Generation						
Name of Generating station			**Kakkad**			
S. No.	**Particulars**	**Units**	**2016-17**			**Remarks**
			Approved	**Audited**	**Truing Up**	
1	2	3	4	5	6 = 5 - 4	7
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**50**	**50**	**50**	
	AFC		**-**			
	Capacity Charge		**-**			
	Energy charge rate		**-**			
1.2	NAPAF	%	**88**			
1.3	Actual/Projected Annual Plant Availability Factor	%		**86.35**	**86.35**	
1.4	Design Energy	MU	**262**	**-**	**-**	
1.5	Gross Generation	MU	**208.97**	**130.63**	**130.63**	
1.6	Auxiliary Energy Consumption	%	**0.71**	**0.483**	**0.483**	
1.7	Auxiliary Energy Consumption	MU	**1.48**	**0.631579**	**0.631579**	
1.8	Net Generation	MU	**207.49**	**129.998421**	**129.998421**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 2.2 : Operational Parameters - Generation						
Name of Generating station		**SMALL HYDROELECTRIC POWER STATIONS**				
S. No.	**Particulars**	**Units**	**2016-17**			**Remarks**
			Approved	**Audited**	**Truing Up**	
1	**2**	**3**	**4**	**5**	**6 = 5 - 4**	**7**
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	**91.4**	**95**	**95**	**Vellathuval 3.6MW commissioned on 08.09.2016**
	AFC		-	-	-	
	Capacity Charge		-	-	-	
	Energy charge rate		-	-	-	
1.2	NAPAF	%	-	-	-	
1.3	Actual/Projected Annual Plant Availability Factor	%	-			
1.4	Design Energy	MU	**327.18**	-	-	
1.5	Gross Generation	MU	**251.818**	**163.9**	**163.9**	
1.6	Auxiliary Energy Consumption	%	**1**	**0.246**	**0.246**	
1.7	Auxiliary Energy Consumption	MU	**2.51818**	**1.222**	**1.222**	
1.8	Net Generation	MU	**249.29982**	**162.678**	**162.678**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 2.2 : Operational Parameters - Generation						
Name of Generating station		Wind - Kanjikode				
S. No.	Particulars	Units	2016-17			Remarks
			Approved	Audited	Truing Up	
1	2	3	4	5	6	7
1	**Operational Parameters - Hydel**					
1.1	Total Capacity	MW	-	**2.025**	**2.025**	
	AFC		-	-	-	
	Capacity Charge		-	-	-	
	Energy charge rate		-	-	-	
1.2	NAPAF	%	-	-	-	
1.3	Actual/Projected Annual Plant Availability Factor	%	-	-	-	
1.4	Design Energy	MU	-	**4**	**4**	
1.5	Gross Generation	MU	-	**1.7146**	**1.7146**	
1.6	Auxiliary Energy Consumption	%	**1**	**0.07**	**0.07**	**1%**
1.7	Auxiliary Energy Consumption	MU	**0**	**0.0012**	**0.0012**	
1.8	Net Generation	MU		**1.7134**	**1.7134**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 2.2 : Operational Parameters - Generation						
Name of Generating station		SOLAR				
S. No.	Particulars	Units	2016-17			Remarks
			Approved	Audited	Truing Up	
1	2	3	4	5	6 = 5 - 4	7
1	**Operational Parameters - SOLAR**					
1.1	Total Capacity	MW	-	**9.1044**	**9.1044**	**From 19 plants**
	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	-	**5.2**	**5.2**	
1.6	Auxiliary Energy Consumption	%	**0**	**0.663**	**0.663**	
1.7	Auxiliary Energy Consumption	MU	-	**0.0345**	**0.0345**	
1.8	Net Generation	MU	-	**5.1655**	**5.1655**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 3.2 : Non-Tariff Income (2016-17)					
No	**Particulars**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
	Non-tariff income (Rs Cr)				
1	Interest on staff loans and advances	…	0.01	0.01	
2	Income from statutory investments	…	0.00	0.00	
3	Income from sale of ash/rejected coal	…	0.00	0.00	
4	Income from rent of land or buildings	…	0.62	0.62	
5	Income from sale of scrap	…	1.56	1.56	
6	Income from staff welfare activities	…	0.00	0.00	
7	Rental from staff quarters	…	0.07	0.07	
8	Excess found on physical verification	…	0.00	0.00	
9	Interest on investments, fixed and call deposits and bank balances	…	0.01	0.01	
10	Interest on advances to suppliers/contractors	…	0.91	0.91	
11	Income from hire charges from contractors and others	…	0.00	0.00	
12	Income from advertisements, etc.	…	0.00	0.00	
13	Miscellaneous receipts	…	19.06	19.06	
14	Interest on delayed or deferred payment on bills	…	0.00	0.00	
15	Rebate from fuel suppliers	…	0.00	0.00	
	Total non-tariff income		**22.23**	**22.23**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 4 : O&M Expenses (2016-17)						
No.	**Particulars**	**Approved**	**Audited**	**Normative**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	Employee Expenses (as per norms)	47.65	91.16	NA	91.16	
2	Terminal benefits		81.83		81.83	
2	Annual Contribution for Terminal Liabilities based on actuarial valuation	--	0.00	NA		
3	Repair & Maintenance Expenses (as per norms)	19.83	27.70	NA	27.70	
4	Administrative & General Expenses (as per norms)	4.59	9.69	NA	9.69	
5	**Total O&M Expenses (as per Norms)**	3.64	NA	NA		*
6	**Total O&M Expenses (Actual)**	75.71	**210.38**	NA	**210.38**	
* includes O&M expenditure for new stations						

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 4(a) : Employee Expenses (2016-17)						
No	**Particulars**	**Form No**	**Approved in Tariff Order**	**Audited**	**Truing Up requirement**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	Basic Salary		NA	123.48	123.48	
2	Dearness Allowance (DA)		NA	26.59	26.59	
3	House Rent Allowance		NA	1.82	1.82	
4	Conveyance Allowance		NA	0.00	0.00	
5	Leave Travel Allowance		NA	0.02	0.02	
6	Earned Leave Encashment		NA	9.70	9.70	
7	Other Allowances		NA	4.28	4.28	
8	Medical Reimbursement		NA	0.61	0.61	
9	Overtime Payment		NA	0.37	0.37	
10	Bonus/Ex-Gratia Payments		NA	0.42	0.42	
11	Interim Relief / Wage Revision		NA	0.00	0.00	
12	Staff welfare expenses		NA	0.14	0.14	
13	VRS Expenses/Retrenchment Compensation		NA	0.00	0.00	
14	Commission to Directors		NA	0.00	0.00	
15	Training Expenses		NA	0.00	0.00	
16	Payment under Workmen's Compensation Act		NA	0.00	0.00	
17	**Net Employee Costs**		NA	**167.44**	**167.44**	
18	Terminal Benefits		NA	80.86	80.86	
19	Others		NA	0.97	0.97	
20	**Gross Employee Expenses**		NA	**249.27**	**249.27**	
21	Less: Expenses Capitalised		NA	76.28	76.28	
22	**Net Employee Expenses**		**47.65**	**172.99**	**172.99**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION						
Form G 4 (b) : Administrative & General Expenses (2016-17)						
No	Particulars	Form No	Approved	Audited	Truing Up	Remarks
1	2	3	4	5	6	7
1	Rent Rates & Taxes		NA	6.12	6.12	
2	Insurance		NA	0.09	0.09	
3	Telephone & Postage, etc.		NA	0.18	0.18	
4	Legal charges		NA	0.44	0.44	
5	Audit Fees		NA	0.11	0.11	
6	Consultancy charges		NA	0.07	0.07	
7	Other Professional charges		NA	0.46	0.46	
8	Conveyance		NA	3.33	3.33	
9	Vehicle Running Expenses Truck / Delivery Van		NA	0.04	0.04	
10	Vehicle Hiring Expenses Truck / Delivery Van		NA	0.01	0.01	
11	Electricity charges		NA	0.06	0.06	
12	Water charges		NA	0.01	0.01	
13	Entertainment		NA	0.07	0.07	
14	Fees & subscription		NA	0.32	0.32	
15	Printing & Stationery		NA	0.33	0.33	
16	Advertisements, exhibition publicity		NA	0.55	0.55	
17	Contribution/Donations		NA	0.32	0.32	
18	Training expenses		NA	0.76	0.76	
19	Miscellaneous Expenses		NA	-0.25	-0.25	
20	DSM activities		NA	0.00	0.00	
21	SRPC expenses		NA	0.11	0.11	
22	Sports and related activities		NA	0.13	0.13	
23	Freight		NA	0.88	0.88	
24	Purchase Related Advertisement Expenses		NA	0.45	0.45	
25	Bank Charges		NA	0.00	0.00	
26	Office Expenses		NA	7.92	7.92	
27	License Fee and other related fee		NA	2.33	2.33	
32	Books & periodicals		NA	0.02	0.02	
34	Others		NA	0.33	0.33	
35	Others- Other Purchase related Expenses		NA	0.49	0.49	
36	Others - Expenditure in distribution of LED		NA	-2.99	-2.99	
37	**Gross A&G Expenses**		NA	**22.70**	**22.70**	
38	**Ele. Duty u/s 3(I), KED Act**		NA	**0.00**	**0.00**	
39	Less: Expenses Capitalised		NA	13.00	13.00	
40	**Net A&G Expenses**		**4.59**	**9.69**	**9.69**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION						
Form G 4(c) : Repair & Maintenance Expenses (2016-17)						
No	Particulars	Form No	Approved	Audited	Truing Up	Remarks
1	2	3	4	5	6	7
1	Plant & Machinery		NA	15.43	15.43	
2	Buildings		NA	2.94	2.94	
3	Civil Works		NA	4.44	4.44	
4	Hydraulic Works		NA	3.04	3.04	
5	Lines & Cable Networks		NA	0.95	0.95	
6	Vehicles		NA	0.56	0.56	
7	Furniture & Fixtures		NA	0.08	0.08	
8	Office Equipment		NA	0.25	0.25	
9	**Gross R&M Expenses**		**NA**	**27.70**	**27.70**	
10	Less: Expenses Capitalised		NA	0.00	0.00	
11	**Net R&M Expenses**		**19.83**	**27.70**	**27.70**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION						
Form G 5. 1 : Energy Charges for Thermal Generation (2016-17)						
NAME OF STATION : BRAHMAPURAM DIESEL POWER PLANT (BDPP)						
No	**Particulars**	**Form No**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	**Operational Parameters**					
1.1	Total Capacity	MW	**63.96**			
1.2	Availability	%	**0**			
1.3	PLF	%	**0**			
1.4	Gross Generation	MU	**0**			
1.5	Auxiliary Energy Consumption	%	**3.87**			
1.6	Auxiliary Energy Consumption	MU	-			
1.7	Net Generation	MU	-			
1.8	Heat Rate	kcal/kWh	**2000**			
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**					
3.1	Specific Fuel Consumption					
3.1.1	Fuel 1---------------------	unit/kWh				
3.2	Total Fuel Consumption					
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	-	**3.53**		
5	**Other Charges and Adjustments**					
5.1.1	Other Charges (pl. specify details)	Rs Crore				
6	**Total Cost (4+5)**	Rs Crore	-	**3.53**		
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				

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G 5. 1 : Energy Charges for Thermal Generation (2016-17) NAME OF STATION : KOZHIKODE DIESEL POWER PLANT (KDPP)							
No	**Particulars**	**Units**	**Approved**	**Audited**	**Normative**	**Truing Up**	**Remarks**
1	2	3	4	5	6	7	8
1	**Operational Parameters**						
1.1	Total Capacity	MW	**96**	-		-	
1.2	Availability	%	**0**	**82.68**		**82.68**	
1.3	PLF	%	**0**	**80**		**80**	
1.4	Gross Generation	MU	**0**	**38.01**		**38.01**	
1.5	Auxiliary Energy Consumption	%	**1.99**	**4.39**		**4.39**	
1.6	Auxiliary Energy Consumption	MU	-	**1.67**		**1.67**	
1.7	Net Generation	MU	-	**36.34**		**36.34**	
1.8	Heat Rate	kcal/kWh	**2100**				
2	**Fuel Parameters**						
2.1	**Gross Calorific Value**						
2.1.1	Fuel 1---------------------LSHS	kcal/unit					
2.2	Landed Fuel Price per unit (Please specify the fuel)	Rs/MT	-	**22444.89**		**22444.89**	
2.2.1	Fuel 1--------------------						
3	**Fuel Consumption and Heat Contribution**						
3.1	Specific Fuel Consumption						
3.1.1	Fuel 1---------------------	unit/kWh					
3.2	Total Fuel Consumption						
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	-	**17.85**		**17.85**	
5	**Other Charges and Adjustments**						
5.1.1	Other Charges (pl. specify details)	Rs Crore					
6	**Total Cost (4+5)**	Rs Crore	-	**17.85**		**17.85**	
7	**Cost of Generation per unit (@ Gen 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					

KERALA STATE ELECTRICITY BOARD LIMITED – STRATEGIC BUSNESS UNIT – GENERATION Form G 5. 2 : Fuel Cost Details for Thermal Generation (2016-17) NAME OF STATION : BRAHMAPURAM DIESEL POWER PLANT (BDPP)						
S. No.	**Particulars**	**Units**	**Approved**	**Audited**	**Truing Up**	**Remarks**
			4	5	6	7
1	Basic Cost	Rs/unit	0	**25953.03**	**25953.03**	
2	Freight	Rs/unit	**0**	-	-	
3	Freight Surcharge, if applicable	Rs/unit	**0**	**-**	**-**	
4	Fuel Handling Charges	Rs/unit	**0**	**-**	**-**	
5	Taxes and Duties (pl. specify details)	Rs/unit	**0**	**483.76**	**483.76**	
6	Any other charges	Rs/unit	**0**	**-**	**-**	
7	**Total Price excluding Transit Loss**	Rs/unit	**0**	**26436.79**	**26436.79**	
8	**Transit Loss**	%	**0**	**-**	**-**	
9	**Total Price including Transit Loss**	**Rs/unit**	**0**	**26436.79**	**26436.79**	

KERALA STATE ELECTRICITY BOARD LIMITED – STRATEGIC BUSNESS UNIT - GENERATION Form G 5. 2 : Fuel Cost Details for Thermal Generation (2016-17) NAME OF STATION : KOZHIKODE DIESEL POWER PLANT (KDPP)						
No	**Particulars**	**Units**	**Approved**	**Audited**	**Truing Up**	**Remarks**
			4	**5**	**6**	**7**
1	Basic Cost	Rs/MT	**0**	**22119.3**	**22119.3**	
2	Freight	Rs/MT	**0**	**1114.09**	**1114.09**	**(DC+Toll harges)**
3	Freight Surcharge, if applicable	Rs/MT	**0**	**0**	**0**	
4	Fuel Handling Charges	Rs/MT	**0**	**0**	**0**	
5	Taxes and Duties (pl. specify details)	Rs/MT	**0**	**5305.19**	**5305.19**	
6	Any other charges	Rs/MT	**0**	**0**	**0**	
7	**Total Price excluding Transit Loss**	Rs/MT	**0**	**28538.58**	**28538.58**	
8	**Transit Loss**	%	**0**	**0**	**0**	
9	**Total Price including Transit Loss**	**Rs/unit**	**0**	**28538.58**	**28538.58**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form G- 6.1 : Fixed Assets and Provisions for Depreciation												
No.	Particular	Depreciation %	Gross fixed assets for 2016-17				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	Adjustment & deductions	At the end of the year	Cumulative up to the beginning of the year	Additions during the year	Adjustment during the year	At the end of the year		
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Land & land rights		1480.94	15.17		1496.11	0.00				1480.94	1496.11
1A	Hydraulic works		1160.33	160.34		1320.67	438.16	96.98		535.14	722.17	785.53
2	Building & Civil works of Power plant		481.78	107.94		589.71	213.85	8.56		222.41	267.93	367.30
3	Plant & machinery incl sub-station equipment		13276.87	163.75		13440.62	1423.64	149.51		1573.15	11853.23	11867.47
4	Communication equipment		3.31	0.06		3.37	0.79	2.64		3.43	2.52	-0.06
5	Vehicles		7.20	0.62		7.83	3.35	1.81		5.16	3.85	2.66
6	Furniture & fixtures		3.82	0.42		4.23	2.51	0.59		3.09	1.31	1.14
7	Office Equipments		3.45	0.76		4.21	1.98	0.47		2.46	1.47	1.75
8	Capital spares		0.00	0.00			0.00	0.00			0.00	0.00
9	IT Equipments		5.66	0.27		5.93	1.22	3.48		4.70	4.44	1.23
11	Lines, Cable Network etc		6.47	0.90		7.37	4.76	0.58		5.33	1.71	2.04
12	Depreciation on Assets capitalised in the initial BS of the IND As Accounts							-110.89				
	Total (1) to (12)		**16429.82**	**450.22**		**16880.05**	**2090.25**	**153.74**		**2354.88**	**14339.57**	**14525.17**

Note: This form has been prepared in line with IND AS accounts. Depreciation claim as per petition differ due to the reasons stated in Chapter 5.

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION Form 6.2 (a) : Calculation of Weighted Average Rate of Interest on Actual Loans (2016-17)					
No	**Particulars**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
1	**Loan from LIC**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	0.00	0.00	
iv.	Add: Drawal(s) during the Year	NA	0.00	0.00	
v.	Less: Repayment (s) of Loans during the year	NA	-1.03	-1.03	
vi	IND Adj	NA	0.52	0.52	
vii	Net loan - Closing	NA	0.51	0.51	
viii	Average Net Loan	NA	0.26	0.26	
ix	Rate of Interest on Loan on annual basis	NA	9.00	9.00	
x	Interest on loan	NA	0.11	0.11	
2	**REC-Various schemes**				
i.	Gross Loan -Opening	NA			
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	222.97	222.97	
iv.	Add: Drawal(s) during the Year	NA	361.72	361.72	
v.	Less: Repayment (s) of Loans during the year	NA	19.31	19.31	
vi	IND Adj	NA	37.49	37.49	
vii	Net loan - Closing	NA	527.89	527.89	
viii	Average Net Loan	NA	375.43	375.43	
ix	Rate of Interest on Loan on annual basis	NA	8.50-12.37	8.50-12.37	
x	Interest on loan	NA	26.35	26.35	
3	**REC-For R-APDRP Part B**				
i.	Gross Loan -Opening	NA			
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	84.39	84.39	
iv.	Add: Drawal(s) during the Year	NA	36.84	36.84	
v.	Less: Repayment (s) of Loans during the year	NA	2.22	2.22	
vi	IND Adj	NA	19.29	19.29	
vii	Net loan - Closing	NA	99.72	99.72	
viii	Average Net Loan	NA	92.06	92.06	
ix	Rate of Interest on Loan on annual basis	NA	9.92-11.15	9.92-11.15	
x	Interest on loan	NA	11.02	11.02	
	Continued…				

No	Particulars	Approved	Audited	Truing Up	Remarks
1	2	3	4	5	6
	...Continued				
4	**REC-RGGVY**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	0.00	0.00	
iv.	Add: Drawal(s) during the Year	NA	1.23	1.23	
v.	Less: Repayment (s) of Loans during the year	NA	-3.33	-3.33	
vi	IND Adj	NA	0.88	0.88	
vii	Net loan - Closing	NA	3.68	3.68	
viii	Average Net Loan	NA	1.84	1.84	
ix	Rate of Interest on Loan on annual basis	NA	10.50-11.75	10.50-11.75	
x	Interest on loan	NA	0.48	0.48	
5	**REC-DDG Scheme**				
i.	Gross Loan -Opening	NA			
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	0.00	0.00	
iv.	Add: Drawal(s) during the Year	NA	0.04	0.04	
v.	Less: Repayment (s) of Loans during the year	NA	0.00	0.00	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	0.04	0.04	
viii	Average Net Loan	NA	0.02	0.02	
ix	Rate of Interest on Loan on annual basis	NA	10.50-11.75	10.50-11.75	
x	Interest on loan	NA	0.00	0.00	
6	**REC-Medium Term Loan**				
i.	Gross Loan -Opening	NA			
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	35.35	35.35	
iv.	Add: Drawal(s) during the Year	NA	0.00	0.00	
v.	Less: Repayment (s) of Loans during the year	NA	35.35	35.35	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	0.00	0.00	
viii	Average Net Loan	NA	17.68	17.68	
ix	Rate of Interest on Loan on annual basis	NA	12.75-13.00	12.75-13.00	
x	Interest on loan	NA	0.93	0.93	
	Continued...				

No	Particulars	Approved	Audited	Truing Up	Remarks
1	2	3	4	5	6
	Continued...				
7	**PFC**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	50.58	50.58	
iv.	Add: Drawal(s) during the Year	NA	322.73	322.73	
v.	Less: Repayment (s) of Loans during the year	NA	1.33	1.33	
vi	IND Adj	NA	1.40	1.40	
vii	Net loan - Closing	NA	370.58	370.58	
viii	Average Net Loan	NA	210.58	210.58	
ix	Rate of Interest on Loan on annual basis	NA	9.08-11.75	9.08-11.75	
x	Interest on loan	NA	5.78	5.78	
8	**DRIP**				
i.	Gross Loan -Opening	NA			
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	0.00	0.00	
iv.	Add: Drawal(s) during the Year	NA	8.60	8.60	
v.	Less: Repayment (s) of Loans during the year	NA	0.00	0.00	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	8.60	8.60	
viii	Average Net Loan	NA	4.30	4.30	
ix	Rate of Interest on Loan on annual basis	NA			
x	Interest on loan	NA	0.00	0.00	
9	**South Indian Bank**				
i.	Gross Loan -Opening	NA			
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	23.86	23.86	
iv.	Add: Drawal(s) during the Year	NA	0.00	0.00	
v.	Less: Repayment (s) of Loans during the year	NA	0.63	0.63	
vi	IND Adj	NA	1.26	1.26	
vii	Net loan - Closing	NA	21.97	21.97	
viii	Average Net Loan	NA	22.92	22.92	
ix	Rate of Interest on Loan on annual basis	NA	10.00	10.00	
x	Interest on loan	NA	2.32	2.32	
	Continued...				

No	Particulars	Approved	Audited	Truing Up	Remarks
1	2	3	4	5	6
	…Continued				
10	**RIDF of NABARD**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	0.00	0.00	
iv.	Add: Drawal(s) during the Year	NA	0.12	0.12	
v.	Less: Repayment (s) of Loans during the year	NA	0.00	0.00	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	0.12	0.12	
viii	Average Net Loan	NA	0.06	0.06	
ix	Rate of Interest on Loan on annual basis	NA	6.25	6.25	
x	Interest on loan	NA	0.00	0.00	
11	**PFC GEL KAKKAYAM**				
i.	Gross Loan -Opening	NA			
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	2.38	2.38	
iv.	Add: Drawal(s) during the Year	NA	6.07	6.07	
v.	Less: Repayment (s) of Loans during the year	NA	0.06	0.06	
vi	IND Adj	NA	0.94	0.94	
vii	Net loan - Closing	NA	7.45	7.45	
viii	Average Net Loan	NA	4.92	4.92	
ix	Rate of Interest on Loan on annual basis	NA	10.50-11.00	10.50-11.00	
x	Interest on loan	NA	0.75	0.75	
12	**SBI**				
i.	Gross Loan -Opening	NA			
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	198.84	198.84	
iv.	Add: Drawal(s) during the Year	NA	0.00	0.00	
v.	Less: Repayment (s) of Loans during the year	NA	-1.16	-1.16	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	200.00	200.00	
viii	Average Net Loan	NA	199.42	199.42	
ix	Rate of Interest on Loan on annual basis	NA	9.00	9.00	
x	Interest on loan	NA	17.93	17.93	
	Continued…				

No	Particulars	Approved	Audited	Truing Up	Remarks
1	2	3	4	5	6
	...Continued				
13	**Vijaya Bank**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	53.03	53.03	
iv.	Add: Drawal(s) during the Year	NA	160.00	160.00	
v.	Less: Repayment (s) of Loans during the year	NA	133.03	133.03	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	80.00	80.00	
viii	Average Net Loan	NA	66.52	66.52	
ix	Rate of Interest on Loan on annual basis	NA	9.00	9.00	
x	Interest on loan	NA	4.87	4.87	
14	**South Indian Bank**				
i.	Gross Loan -Opening	NA			
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	26.51	26.51	
iv.	Add: Drawal(s) during the Year	NA	160.00	160.00	
v.	Less: Repayment (s) of Loans during the year	NA	106.51	106.51	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	80.00	80.00	
viii	Average Net Loan	NA	53.26	53.26	
ix	Rate of Interest on Loan on annual basis	NA	9.00	9.00	
x	Interest on loan	NA	4.63	4.63	
15	**Bank of India**				
i.	Gross Loan -Opening	NA			
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	119.31	119.31	
iv.	Add: Drawal(s) during the Year	NA	390.00	390.00	
v.	Less: Repayment (s) of Loans during the year	NA	354.31	354.31	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	155.00	155.00	
viii	Average Net Loan	NA	137.16	137.16	
ix	Rate of Interest on Loan on annual basis	NA	9.00	9.00	
x	Interest on loan	NA	11.48	11.48	
	Continued...				

No	Particulars	Approved	Audited	Truing Up	Remarks
1	2	3	4	5	6
	Continued…				
16	**Syndicate Bank**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	26.51	26.51	
iv.	Add: Drawal(s) during the Year	NA	0.00	0.00	
v.	Less: Repayment (s) of Loans during the year	NA	26.51	26.51	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	0.00	0.00	
viii	Average Net Loan	NA	0.00	0.00	
ix	Rate of Interest on Loan on annual basis	NA			
x	Interest on loan	NA	0.62	0.62	
17	**Andhra Bank**				
i.	Gross Loan -Opening	NA			
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	79.54	79.54	
iv.	Add: Drawal(s) during the Year	NA	440.00	440.00	
v.	Less: Repayment (s) of Loans during the year	NA	279.54	279.54	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	240.00	240.00	
viii	Average Net Loan	NA	159.77	159.77	
ix	Rate of Interest on Loan on annual basis	NA	9.00	9.00	
x	Interest on loan	NA	10.06	10.06	
16	**Total Loan**				
i.	Gross Loan -Opening	NA			
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	923.27	923.27	
iv.	Add: Drawal(s) during the Year	NA	1887.35	1887.35	
v.	Less: Repayment (s) of Loans during the year	NA	953.28	953.28	
vi	IND Adj	NA	61.78	61.78	
vii	Net loan - Closing	NA	1795.56	1795.56	
viii	Average Net Loan	NA	1346.16	1346.16	
ix	Rate of Interest on Loan on annual basis	NA	7.23	7.23	
x	Interest on loan	NA	97.33	97.33	
Note: Interest as per trifurcated accounts Rs.50.05. Difference is due to classification and IND AS adjustments as detailed in chapter 5.					

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT – GENERATION Form G 6.2(b) : Calculation of Interest on Normative Loan (2016-17)					
No	**Particulars**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
1	**Gross Normative loan - Opening**				
2	Cumulative repayment of Normative Loan up to previous year				
3	Net Normative loan - Opening	NA	923.27	923.27	
4	Increase/Decrease due to ACE/de-capitalization during the Year	NA	1887.35	1887.35	
5	Repayments of Normative Loan during the year	NA	953.28	953.28	
6	IND AS Adjustment	NA	61.78	61.78	
7	Average Normative Loan	NA	1795.56	1795.56	
8	Weighted average Rate of Interest of actual Loans	NA	7.23	7.23	
9	Interest on Normative loan	NA	97.33	97.33	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION									
Form G 6.4 : Consolidated report on additions to Fixed Assets during the year (2015-16) (Actual/Audited)									
No.	Asset Description	Asset Code	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	...	...	...	...	...	15.17	...
02.	Buildings	10.2	...	...	...	...	...	63.58	...
03.	Hydraulic Works	10.3	...	...	...	...	...	160.34	
04.	Other Civil Works	10.4	...	...	...	...	...	44.35	
05.	Plant & Machinery	10.5	...	...	...	...	...	163.81	
06.	Lines, Cable, Network etc.	10.6	...	...	...	...	...	0.90	
07.	Vehicles	10.7	...	...	...	...	...	0.62	
08.	Furniture & Fixtures	10.8	...	...	...	...	...	0.42	
09.	Office Equipments	10.9	...	...	...	...	...	1.03	
	TOTAL							**450.22**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION **Form G 6.9: Return on Equity/Return on Net Fixed Assets (2016-17)**							
No	**Particulars**	**Reference**	**Approved**	**Audited**	**Normative**	**Truing Up**	**Remarks**
1			**4**	**5**	**6**	**7**	**8**
1	Equity at the beginning of the year		…	…	….	1454.50	
2	Capitalisation		…	…	….		
3	Equity portion of capitalization		…	…	….		
4	Equity at the end of the year		…	…	….	1454.50	
	Return Computation						
5	Return on Equity @ year Start	14%*(1)	…	…	…	203.63	
6	RoE portion of capitalisation (pro-rata)	14%*(3)/2	…	…	…	0	
7	**Total Return on Equity**	(5)+(6)	203.63	288.74	…	**203.63**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION **Form G 6.11 : Interest on Working Capital (2015-16)**						
No	**Particulars**	**Approved**	**Audited**	**Normative**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	Fuel cost (as per norms)	NA	1.95	NA	1.95	
2	Liquid fuel stock (as per norms)	NA	...	NA	...	
3	O & M expenses (as per norms)	NA	17.53	NA	17.53	
4	Maintenance Spares (as per norms)	NA	44.41	NA	44.41	
5	Receivables (as per norms)	NA	54.94	NA	54.94	
	Total Working Capital	**NA**	**118.83**	**NA**	**118.83**	
	Rate of Interest (as per norms)	NA	13%	NA	13%	
	Interest on Working Capital	**NA**	**15.45**	**NA**	**15.45**	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION					
Form G 8 : Deviation Analysis (2016-17)					
S. No.	Particulars	Approved	True up	Deviation	Reason for Deviation
1	2	3	4	5	6
A	**Expenditure**				
1	Variable Costs, including Fuel Cost	NA	23.45	- 23.45	
2	Depreciation	172.43	188.79	16.36	
3	Interest on term Loan & Finance charges	220.84	50.05	-170.79	
4	Return on Equity	203.63	203.63	0	
5	Tax on ROE	NA	NA	NA	
6	Interest on Working Capital				
7	O & M Expenses	75.71	128.55	52.84	
9	Other expenses	NA	41.16	41.16	
10	Terminal benefits	NA	81.83	81.83	
	Total (A) Expenditure	672.61	717.46	44.85	
B	**Receipts**				
1	Revenue from Sale of Power /Transfer price	NA	695.23	695.23	
2	Non Tariff income	NA	22.23	22.23	
3	Revenue Subsidies, Grants & Subvention (Govt)	NA	NA	NA	

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION					
Form G P&L : Profit & Loss Account (2016-17)					
S.No.	**Particulars**	**Ref**	**2016-17**	**2015-16**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
I	**INCOME**				
	(a) Revenue from Sale of Power		695.23	633.37	
	(b) Revenue Subsidies and Grants				
	(c) Other Income		22.23	19.43	
	Total (a+b+c)		**717.46**	**652.80**	
II	**EXPENDITURE**				
	(a) Repairs and Maintenance.		27.70	26.02	
	(b) Employee Cost		167.44	153.21	
	© Terminal benefits		81.83	40.62	
	(c) Administration and General Expenses		22.70	20.64	
	(d) Depreciation		188.79	122.05	
	(e) Interest and Finance charges		57.47	49.46	
	(f) Subtotal (a+b+c+d+e)		**545.93**	**352.87**	
	(g) Less Capitalized Expenses:				
	- Interest & Finance Charges		7.42	3.14	
	- Other Expenses		89.28	55.99	
	(h) Other Debits		0.35	2.24	
	(I) Extra Ordinary Items		-0.95		
	(j) Fuel cost (Generation of Power)		23.45	104.26	
	Total Expenditure (f-g+h+i+j)		**472.08**	**459.37**	
III	**Profit /(Loss) before Tax (I-II)**		**245.39**	193.43	
IV	**Provision for Income Tax**				
V	**net Prior period credits (Charges)**		-41.76	10.20	
VI	**Surplus (Deficit)**		**203.63**	**203.63**	
VII	**Net Assets at the beginning of the year (Less consumer's Contribution)**				
VIII	**Rate of Return (VI / VII)**				
	Continued..				

KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT – GENERATION					
Form G BS : Balance Sheet at the end of the year 2016-17					
No.	**Particulars**	**Ref**	**2016-17**	**2015-16**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
	Sources of Funds:				
A	Capital Funds:				
	Share Capital (Govt. equity)		1719.45	927.69	
	Reserves & Surplus				
	Total (A)		**1719.45**	**927.69**	
B	Loan from State Government				
	Loan from others :				
	-Secured		755.00	419.53	
	-Unsecured		1040.56	503.74	
	Total (B)		**1795.56**	**923.27**	
C	Contribution, grants & subsidies towards cost of capital				
	Provident Fund		135.97	75.09	
	Terminal Benefit Fund		11571.26	12011.58	
	Borrowings for working capital				
	Long term Provision		141.33	997.09	
	Grand total of sources of funds (A+B+C)		**15363.57**	**14934.72**	
	***Application of Funds:**				
A	Fixed assets				
	(a) Gross fixed assets		16880.05	16429.83	
	(b) Less accumulated depreciation		2354.88	2090.26	
	(c) Net Fixed assets((a)-(b))		**14525.17**	**14339.57**	
	(d) Capital works in progress		753.92	1112.10	
	(e) Assets not in use				
	(f) Deferred costs		102.29	93.59	
	(g) Intangible assets				
	(h) Investments		8.15	8.46	
	(i) Other Non current assets		90.28	4.41	
	Total (c) +(d)+(e)+(f)+(g)+(h)+(i)		**15479.81**	**15558.13**	
B	Subsidy receivable from Government				
	Pension Contribution from Government		401.00	319.98	
C	Net Current Assets				
	(1) Current assets, loans and advances				
	(a) Inventories*		23.05	26.16	
	(b) Receivables against Sale of Power				
	(c) Cash & bank balances		6.32	20.24	
	(d) Loans and advances		5.42	9.84	
	(e) Sundry receivables		109.95	174.69	
C1	**Total (C1)**		**144.74**	**230.93**	
	(2) Current liabilities & provisions				
	(a) Borrowings for working capital		351.99	868.78	
	(b) Payments due on Cap. liabilities				
	(c) Other current liabilities		309.99	305.54	
C2	**Total (C2)**		**661.98**	**1174.32**	
	Net Current Assets (C = C1-C2)		-517.24	-943.39	
	Grand Total of Application of funds (A)+(B)+(C)		**15363.57**	**14934.72**	

No	Particulars	Ref	2016-17	2015-16	Remarks
KERALA STATE ELECTRICITY BOARD LIMITED - BUSNESS UNIT - GENERATION					
Form G CF : Cash Flow for the year					
No	**Particulars**	**Ref**	**2016-17**	**2015-16**	**Remarks**
1	**2`**	**3**	**4**	**5**	**6**
I	**Net Funds from Operations**				
1	Net Funds from Earnings :				
	(a) Profit before tax and before revenue subsidies and grants		288.74	143.80	
	Less : Income Tax Payment during the year				
	Total of (a)		**288.74**	**143.80**	
	(b) Add: Debits to rev. account not requiring cash Flow:				
	(I) Depreciation		153.74	122.05	
	(ii) Depreciation on Assets capitalized in the initial BS of the IND As Accounts		110.88		
	(ii) Amortization of Deferred costs				
	(iii) Amortization of Intangible Assets				
	(iv) Investment Allowance Reserve				
	(v) Others, if any		-855.76	605.42	
	Total of (b)		**-591.14**	**727.47**	
	(c) Less : Credits to revenue Account not involving cash receipts				
	(I) Deprecation				
	(ii) Subsidies receivables				
	(iii) Revenue gap				
	Total of (c)		**0.00**		
	Net Funds from Earnings (a)+(b)-(c)		**-302.40**	**871.27**	
2	Contributions, Grants & Subsidies to cost of Capital Assets				
3	Proceeds from disposal of fixed Assets				
4	**Total Funds from Operations (1+2+3)**		**-302.40**	**871.27**	
5	Net Increase/(Decrease) in working Capital				
	(a) Increase/(Decrease) in Current Assets				
	(I) Inventories		-3.11	-11.02	
	(ii) Receivables against sale of power				
	(iii) Loans and Advances		-4.42	2.42	
	(iv) Sundry receivables		-64.74	5.07	
	(v)Subsidy receivables				
	Total of (a)		**-72.27**	**-3.53**	
	(b) Increase/(Decrease) in Current liabilities				
	(I)Borrowings for working Capital		-516.79	24.59	
	(ii) Other current liabilities		4.45	45.73	
	(iii) Others (Increase in Reserve + payment due on cap.liab)				
	Total of (b)		**-512.34**	**70.32**	
	Net Increase/(Decrease) in working Capital (a)- (b)		**440.07**	**-73.85**	
6	Net Funds from operations before subsidies and Grants (5-6)		-742.47	945.12	
7	Receipts from revenue subsidies and Grants		-81.02	-540.11	
	Total Net Funds from operations including subsidies & Grants (7+8)		**-823.49**	**405.01**	
	Continued…				

No	Particulars	Ref	2016-17	2015-16	Remarks
1	2`	3	4	5	6
	………Continued				
II.	**Net increase/ decrease in Capital liabilities**				
	(a) Fresh borrowings				
	(I) State Loans				
	(ii) Foreign currency Loans / Credits				
	(iii) Other borrowings		1887.34	708.03	
	Total of (a)		**1887.34**	708.03	
	(b) Repayments :				
	(I) State Loans				
	(ii) Foreign currency Loans / Credits				
	(iii) Other borrowings		1015.05	681.21	
	Total of (b)		**1015.05**	681.21	
	Net Increase/(Decrease) in Capital liabilities (a) - (b)		872.29	26.82	
III.	**Increase/(Decrease) in equity Capital**		503.02	-182.57	
IV.	**Total Funds available for Capital Expenditure (I+II+III)**		**551.82**	**249.26**	
V	**Funds utilised on Capital Expenditure**				
	(a)On projects		92.04	247.49	
	(b)Advance to Suppliers & Contractors				
	(c) Intangible Assets				
	(d) Deferred Cost		8.70	10.04	
	(e) Long Term Loans and Advances		85.87	0.11	
	Total of V (a+b+c+d)		**186.61**	**257.64**	
VI	**Net Increase/(Decrease) in Government contribution**				
VII	**Net Increase/(Decrease) in Terminal benefit fund**		-440.32	0.44	
VIII	**Net Increase/(Decrease) in Provident fund**		60.88	7.15	
IX	**Net Increase/(Decrease) in investments**		-0.31	-2.03	
X	**Net Increase /(Decrease) in cash / bank balance (IV - V- VI-IX)+ (**		**-13.92**	**1.24**	
XI	**Add opening cash & Bank balance**		20.24	19	
XII	**Closing Cash & Bank balance**		**6.32**	**20.24**	

--------------------- *End Chapter 2* ----------------------------

CHAPTER – 3: TRUING UP OF ARR OF SBU – TRANSMISSION

3.1 The SBU-T handles the total energy sold to consumers and licensees within the state, power drawn by open access consumers and the small quantum of energy sold outside the state. A summary of the actual ARR for SBU-T is given in the table T.1 below. The ARR, ERC and Transferred cost to SBU-D are furnished as per Form T P&L and Form T1. Transfer price for SBU T has been determined at **Rs. 991.11** Cr after adjusting non tariff income of Rs.35.46 Cr. Item wise explanation is furnished in paragraphs below.

TABLE – T1 : ACTUAL ARR OF TRANSMISSION BUSINESS UNIT (Rs Cr)

No	Particulars	2015-16 True up	Approved 2016-17	Truing up 2016-17	Difference
1	Interest & Financial Charges	49.63	285.64	56.28	-229.36
2	Depreciation	133.04	184.25	183.20	-1.05
3	O&M Expenses *	353.77	193.82	372.49	178.67
4	Return on equity (14%)	217.59	217.59	217.59	0.00
5	Other debits, FVA and prior period income/ expenses	-5.76	0.00	69.94	69.94
7	Terminal benefits	37.09		127.07	127.07
6	ARR	785.36	881.30	1026.57	145.27
7	Less: Income	33.74	0.00	35.46	35.46
8	**Net ARR (Cost Transferred to SBU-D)**	**751.62**	**881.30**	**991.11**	**109.81**
	*excluding Terminal benefits				

3.2 **Interest and Finance charges:** Interest on loans for the year 2016-17 has been Rs 56.28 Cr as detailed under **Form T 4(B).** A comparison of the approved and actual values of various items are given below:

Table T2 : Interest and Finance charges

No	Particulars	Approved	True up	2015-16
1	Interest on Outstanding Capital Liabilities	183.39	56.28	49.63
2	Interest on GPF	14.04	...	...
3	Other Interests	1.07	...	...
4	Interest on Master Trust Bonds	87.14	...	...
5	**Total**	**285.64**	**56.28**	**49.63**

The following factors caused deference between actual figures from approved values: (1) Hon Commission considered the outstanding loan as on 31.03.2016 and Interest @ 11% was approved on this amount. Further, the interest was apportioned among SBUs in the ratio of GFA (reduced by consumer contribution) as on 31.10.2013 and approved Rs. 183.39 Cr for SBU T. Thus Hon Commission considered Rs. 1667 Cr as the loan share of SBU-T as on 31-03-2016 based on the GFA of SBUT as on 31-03.2013 (2). However as per the methodology adopted by KSEBL, which is detailed in chapter 5, for segregation of Loans and interest, the loan amount of SBUT is Rs. 1750.11 Cr and Interest thereon is Rs. 56.28 Cr (2) The Master Trust Bond could not be issued in FY2016-17 and the corresponding interest of Rs 87.14 Cr has not been incurred that year. (3) Other interest and interest on PF has been assigned to SBU-D as per accounts.

Hon Commission may kindly note that KSEBL is consistently capitalizing interest and other charges attributable to capital works in progress and such amount is not claimed as expenditure in the ARR or Truing up petitions. Thus, Regulation 25 of KSERC (Terms and Conditions of Tariff) Regulation 2014, which stipulates that interest during construction would be considered under capital cost and would not be allowed under interest and finance charges, which is fully complied with by KSEBL. During 2016-17, SBU-T had capitalized Rs.8.35 Cr from interest on loans (out of total interest on loans Rs.64.63 Cr) in true spirit of the regulation which stipulates that interest during construction would form part of the capital value of the assets created. In addition, employee cost and A&G expenses were also capitalized to the extent of Rs.36.31 crore and Rs.5.67 Cr respectively.

3.3 Capital works to the tune of Rs 280.04 Cr had been executed during the year. The details are enclosed as **Appendix - T1.** The summary of the same is given below. Details are described in Chapter 5.

Table-T3 : Summary of Capital Works		
No	Item	Quantity
1	110KV lines	73.533 km
2	33KV lines	75.77 km
3	Step down Transformers	364.4 MVA
4	EHT Substations	3 numbers
5	33KV Substations	7 numbers
6	Capacity addition/enhancement	358.8 MVA

3.4 **O&M Expenses**: Component wise O&M expenses are given below.

Table – T4 : Components of O&M (Rs Cr)						
No	**Particulars**	**True up 2015-16**	**Approved 2016-17**	**True up 2016-17**	**Difference**	**Remarks**
1	Employee Cost	255.46	...	260.29		
2	A&G Expenses	50.41	...	64.99		
3	R&M Expenses	47.91	...	47.21		
4	**Sub Total**	**353.78**	**193.82**	**372.49**	**179.67**	
5	Terminal Benefits	37.09	....	127.07		
6	**Total**	**390.86**	**193.82**	**499.56**	**305.74**	

Hon Commission has arrived at the O&M cost of SBUT based on the cost drivers specified in the regulations. However, these norms may please be revisited by the Hon Commission based on the Judgement of the Hon High Court of Kerala in WP(C) 465 / 2015 as pleaded in **Para 1.5 & 1.6** in introductory Chapter in this petition. The cost drivers are shown in the **Table-T5** below. However, as per the accounts of KSEBL, O&M cost is accounted under various account heads such as Employee Cost, A&G Expenses and R&M Cost. Therefore there are no approved values for Employee Cost etc.

Table – T5 : Cost Drivers of Transmission Business								
Item	FY-10	FY-11	FY-12	FY-13	FY-14	FY-15	FY-16	FY-17
Substation Bays*	1934	1994	2016	2028	2159	2406	2466	2488
Substation Bays**	---	----	---	2441	2464	3378	3471	3536
Tran Lines***	9012.5	9046.72	9047.61	9106.63	9147.25	9303.68	9377.03	9451
* Excluding 33 kV bays		** Including 33 kV bays			*** (in Ckt Kms)			

In respect of O&M charges Hon Commission may please note that the CERC norms (Regulation 29(4) (a) of CERC (T&C of Tariff) Regulations, 2014) for the above drivers are Rs. 34.00 Lakh per bay (weighted average for 220 Kv and 132 Kv and below) and 0.324 for (Double Circuit single conductor) lines. Thus the permissible O&M cost would be (2466 x Rs. 34.00 Lakhs + 9377.03 km x 0.324 =) Rs. 868.82 Cr. Therefore, the actual O&M expense of the petitioner is substantially lower than CERC allowed costs. Further, Hon Commission may kindly consider the directions contained in Judgement of the Hon High Court of Kerala (WPC/465/2015) regarding truing up of O&M costs. Hon Commission may please revisit the norms prescribed in the Regulation as per the court order and allow actual expenses rather over and above the normative allowance as per regulation. Since Master Trust bonds for terminal liabilities has been issued only on 01.04.2017, the terminal liabilities for 2016-17 may be allowed over and above the O&M expenses.

3.5 Depreciation: The approved depreciation for the Transmission assets for the year 2016-17 has been **Rs 184.25 Cr** where as the actual expenses were **Rs.183.20** Cr as detailed in **Form T3.** The approval was based on the sum allowable for asset base as on 31-03-2014. No depreciation was allowed for assets added in FY 2014-15 and FY 2015-16. The difference in depreciation is because of the asset addition in 2014-15 and 2015-16 and the impact of fully depreciated assets. Reasons for variation between depreciation as per audited accounts and this petition are detailed in Chapter 5.

3.6 Return on Equity: Return on equity has been claimed @14% on the allocated equity for the Transmission SBU as per the Hon Commission order dated 17-Apr-2017, amounting to **Rs. 217.59 Cr** as detailed in **Form G6.9.** The equity as per account, however, has been determined based on different methodology and therefore ROE as per accounts (Rs. 151. 83) differ from the amount approved by Hon Commission by **Rs 65.76 Cr**.

3.7 Other debits and Prior period expenses/income: Other expenses for the year have been **Rs 2.93 Cr.** During the year there has been prior period expenses amounting to Rs. 74.83 Cr. and FVA income of Rs.1.96 Cr. Hence, after adjusting other debits, fair value adjustment and prior period expenses, the net expenses was Rs 69.94 Cr. These items are described in detail in chapter 5.

3.8 Other Income: SBU T was able to collect Rs.35.46 Cr under income detailed under **Form T 10**. 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.

3.9 Net ARR (Transfer Cost): ARR for Transmission Business Unit for the year 2016-17 had been Rs. 1026.57 Cr and total income earned was Rs. 35.46 Cr. Therefore, Net ARR of SBU-T has been Rs. 991.11 Cr. This cost has been considered as the Cost of intra-state Transmission in the ARR of SBU-D.

3.10 Transmission Availability: The transmission system of KSEBL could achieve an availability of more than 98.5%. The certificate of SLDC is enclosed as **Appendix- T2**

3.11 Transmission loss: The total energy *delivered to* the transmission system was 23763.58 MU in FY 2016-17. The losses in the transmission system at different voltage levels are given in the Table below. 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 1015.75 MU.

Table-T6: Transmission Losses		
No	Voltage Level (kV)	Losses up to voltage level (%)
1	400	0.42
2	220	2.17
3	110	3.76
4	66	4.27
5	Transmission loss	4.27

3.12 The formats for Truing up of Transmission Business Units as per the Tariff Regulation 2014 are provided hereunder. The chapter thereafter provides the truing up of the Distribution Business Unit of KSEBL.

Appendix -T1 : Substations and Lines Commissioned during 2016-17 as on March, 2017

No	Name	VOLATGE (kV)	CAPACITY(MVA)	TYPE	DISTRICT	DATE
Substations commissioned during 2016-17						
1	Kadapra	33	2x5	New	PTTA	16.6.16
2	Kanhangad Town	33	2x5	New	KSGD	31.5.16
3	Feroke	33	2x5	New	KZKD	5.10.16
4	Parappanagadi	110	2x12.5	New	MLPM	30.12.16
5	Kasargod Town	33	2x5	New	KSGD	27.01.17
6	Perambra	33	1x5	New	KZKD	27.03.17
7	GIS, Kollam	110	2x20	New	KLM	27.03.17
8	Kallara	33	1x5	New	KTYM	18.03.17
9	Perinthalmanna	110	1x20	Upgn	MLPM	31.03.17
10	Kalpakanchery	33	1x5	New	MLPM	31.03.17
Lines commissioned during 2016-17						
No	**Name of Line**	**VOLTAGE (kV)**	**LENGTH (c km)**	**TYPE**	**DISTRICT**	**DATE**
1	Edathua - Kadapra	33	9.2	New	PTA	16.6.16
2	Kanhangad - Kanhd town	33	6.85	New	KSGD	31.5.16
3	Vidyanagar - Seethamgoli 2nd ckt	110	8	New	KSGD	1.9.2016
4	Nallalam -Feroke (OH+UG)	33	7.5	New	KZKD	5.10.16
5	Solar park Ambalathara- 110 kV Kanhangad DC	33	12.4	New	KSGD	2.12.2016
6	LILO from Chelari - Kizhissery 110 kV line	110	30.5	New	MLPM	29.12.2016
7	Vidyanagar - Kasargod town	33	5	New	KSGD	30.12.2016
8	Vadakara - Meppayur 2nd Ckt	110	14.7	doubling	KZKD	9.12.16
9	Vytilla - New Vytilla 110 kV UG	110	0.71	New	EKM	16.12.2016
10	Mattannur- KIAL 33 kV DC Line	33	12.4	New	KNNR	25.1.17
11	Tap line from Nedumangad - Vithura	33	0.82	New	TVPM	13.2.17
12	Nedumangadu -LPSC SCUG	33	5.1	New	TVPM	20.3.17
13	Ayathil -GIS Kollam DC	110	3.75	New	KLM	27.3.17
14	Tap from Edarikode-Thirunavaya line	33	0.8	New	MLPM	31.3.17
15	Meppayur-Perambra SC Line	33	8	New	KZKD	27.3.17
16	Kaduthuruthi-Kallara SC line	33	7.7	New	KTYM	18.3.17
17	LILO of Malaparamba-Melattur DC line	110	10	Upgn	MLPM	31.3.17
Capacity Addition during 2016-17						
No	**Name of Substation**	**Voltage (kV)**	**Capacity (MVA)**	**TYPE**	**DISTRICT**	**DATE**
1	Kizhissery (1x16)	110/33	16	CA	MLPM	15.4.16
2	Othukkunkal	33/11	5	CA	MLPM	14.4.16
3	Thazhekode	33/11	5	CA	MLPM	13.4.16
4	Edavanna	33/11	5	CA	MLPM	23.5.16
5	Puthur	33/11	5	CA	KLM	11.8.2016
6	Kannanalloor	33/11	5	CA	KLM	8.9.2016
7	Valluambrum	33/11	5	CA	MLPM	6.6.16
8	Badiyadka	33/11	5	CA	KSGD	27.8.16
9	Kakkanadu	66/11	6	**CE**	EKM	14.7.2016
10	Kakkanadu	66/11	6	**CE**	EKM	7.9.2016
11	Aroor	66/11	6	**CE**	ALPZ	20.8.2016
12	Alappuzha	66/11	6	**CE**	ALPZ	30.7.2016
13	Azhikode	110/33	16	CA	KNNR	26.10.16
14	Paika	33/11	5	CA	KTYM	4.11.16
15	Chelakkara	33/11	5	CA	THSR	15.11.16
16	Kandassamkadavu	110/33	16	CA	THSR	13.12.2016
17	Vandiperiyar	66/11	3.7	CA	IDKI	13.6.16
18	Senapathy	33/11	5	CA	IDKI	8.9.16
19	Poovanthuruthu	110/11	12.5	CA	KTYM	12.11.16
20	Kannampully	66/11	2.3	**CE**	PLKD	31.12.16
	Kannampully	66/11	2.3	**CE**	PLKD	24.3. 17
21	Nallalam	110/33	16	CA	KZKD	30.3.17
22	Edamon	220/110	200	CA	KLM	23.7.16
Note : CA : Capacity Addition, CE : Capacity Enhancement						

Appendix -T2 : TRANSMISSION AVAILABILITY CERTIFICATE

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../2018-19/516 Dt:17.05.2018

To

The Dy. Chief Engineer
TRAC, VB, Thiuvananthapuram

Sub:-Certification of availability for 2016-17-reg
Ref:- That office Email dtd 5-5-2018

CERTIFICATE FOR AVAILABILITY OF KERALA TRANSMISSION SYSTEM

This is to certify that as per records, the availability of Kerala system for the year 2016-2017 is as under.

Transmission Elements	Availability
400kV System	99.03%
220kV System	98.56%
110kV System	98.73%
66kV System	98.86%
System Availability	98.65%

Chief Engineer(Trans-SO) 19/5

TRUING-UP FORMATS FOR KSEBL -STRATEGIC BUSINESS UNIT – TRANSMISSION FOR FY 2016-17

KERALA STATE ELECTRCITY BOARD LIMITED - STRATEGIC BUSINESS UNIT - TRANSMISSION Form T 1 : Summary of Aggregate Revenue Requirement (2016-17)							
No.	**Particulars**	**Ref Form**	**Approved**	**Audited**	**Normative**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	Operation & Maintenance Expenses	T 2	193.82	372.49	NA	372.49	
2	Terminal Benefits	…	…	127.07	..	127.07	
3	Interest and finance charges on long-term loans	T4(b)	198.50	56.28	NA	56.28	
4	Interest on Bonds to meet Terminal Liabilities	T4 (c)	87.14	…	…	…	
5	Depreciation	T3	184.25	210.97	NA	183.20	
6	Interest on Working Capital and User deposits	T 5	…	…	…	…	
7	Contribution to contingency reserves	...	0.00	...	NA	...	
8	Other items	...	0.00	...	NA	...	
9	Adjustments for controllable/uncontrollable factors	...	0.00	0.00		0.00	
10	Other items	T 6	...	68.11	NA	69.94	
11	**Total Revenue Expenditure**		**663.71**	**834.92**		**808.98**	
12	Return on Equity	T 7	217.59	151.83	NA	217.59	
13	Tax on RoE	T 8	...	...	NA	...	
14	**Aggregate Revenue Requirement (9+10+11)**		**881.30**	**986.75**	NA	**1026.57**	
15	Less: Non Tariff Income	T 10	....	35.46	NA	35.46	
16	Less: Revenue from Open Access	...	...	...	NA	...	
17	Less: Income from Other Business	...	...	...	NA	...	
18	**Aggregate Revenue Requirement from Transm Tariff**	...	**881.30**	**951.29**	NA	**991.11**	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION Form T2 : Operation and Maintenance Expenses						
No	**Particular**	**Approved**	**Audited**	**Normative**	**Truing Up**	**Remarks**
1	**2**	**4**	**5**	**6**	**7**	**8**
1	**Bay Basis**					
a	Op. Balance of no. of Bays	2406	2406	NA	2406	
b	Addition of no. of Bays during year	60	60	NA	60	
c	Deletion of no. of Bay during year	0	0	NA	0	
d	Cl. Balance of no. of Bays	2466	2466	NA	2466	
e	Average no. of Bays during Year	2436	2436	NA	2436	
f	O&M cost Norm for Bay (Rs. Lakh/ Bay)	5.54				
A	**O&M Expense per Bay, Rs Lakh**	**13661.64**				
2	**Ckt-km Basis**					
a	Op. Balance of ckt-km	9303.680	9303.680	NA	9303.680	
b	Addition of ckt-km during year	73.353	73.353	NA	73.353	
c	Deletion of ckt-km during year	0.000	0.000	NA	0.000	
d	Cl. Balance of ckt-km	9377.033	9377.033	NA	9377.033	
e	Average ckt-km during Year	9340.357	9340.357	NA	9340.357	
f	Applicable O&M cost Norm (Rs. Lakh / ckt-km)	0.61				
B	**O&M Expense Rs. Lakh**	**5719.99**		NA		
3	**Total O&M Expenses (A+B) (Rs Cr)**	**193.82**		499.56	499.56	
4	**Total O&M Expenses (actual)**	T 2(a,b,c)		499.56	499.56	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION Form T2 (a) : Employee Expenses (2016-17)						
No	**Particulars**	**Ref**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	Basic Salary		NA	221.81	221.81	
2	Dearness Allowance (DA)		NA	47.60	47.60	
3	House Rent Allowance		NA	5.25	5.25	
4	Conveyance Allowance		NA	0.00	0.00	
5	Leave Travel Allowance		NA	0.01	0.01	
6	Earned Leave Encashment		NA	17.55	17.55	
7	Other Allowances		NA	1.99	1.99	
8	Medical Reimbursement		NA	1.15	1.15	
9	Overtime Payment		NA	0.00	0.00	
10	Bonus/Ex-Gratia Payments		NA	0.96	0.96	
11	Interim Relief / Wage Revision		NA	0.00	0.00	
12	Staff welfare expenses		NA	0.20	0.20	
13	VRS Expenses/Retrenchment Compensation		NA	0.00	0.00	
14	Commission to Directors		NA	0.00	0.00	
15	Training Expenses		NA	0.00	0.00	
16	Payment under Workmen's Compensation Act		NA	0.08	0.08	
17	**Net Employee Costs**		NA	**296.60**	**296.60**	
18	Terminal Benefits		NA	125.53	125.53	
18.1	Provident Fund Contribution		NA	0.00	0.00	
18.2	Provision for PF Fund		NA	0.00	0.00	
18.3	Pension Payments		NA	0.00	0.00	
18.4	Gratuity Payment		NA	0.00	0.00	
18.5	Annual Contribution for Terminal Liabilities		NA	0.00	0.00	
19	Others		NA	1.54	1.54	
20	**Gross Employee Expenses**		NA	**423.67**	**423.67**	
21	Less: Expenses Capitalised		NA	36.31	36.31	
22	**Net Employee Expenses**		NA	**387.36**	**387.36**	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION Form T 2(b) : Administrative & General Expenses (2016-17)						
No	**Particulars**	**Ref**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	Rent Rates & Taxes		NA	0.54	0.54	
2	Insurance		NA	0.02	0.02	
3	Telephone & Postage, etc.		NA	1.56	1.56	
4	Legal charges		NA	0.48	0.48	
5	Audit Fees		NA	0.18	0.18	
6	Consultancy charges		NA	0.03	0.03	
7	Other Professional charges		NA	0.60	0.60	
8	Conveyance		NA	6.31	6.31	
9	Vehicle Running Expenses		NA	0.16	0.16	
10	Vehicle Hiring Expenses		NA	0.17	0.17	
11	Electricity charges		NA	0.04	0.04	
12	Water charges		NA	0.09	0.09	
13	Entertainment		NA	0.15	0.15	
14	Fees & subscription		NA	0.27	0.27	
15	Printing & Stationery		NA	0.92	0.92	
16	Advertisements, Etc		NA	0.54	0.54	
17	Contribution/Donations		NA	0.35	0.35	
18	Training expenses		NA	-0.15	-0.15	
19	Miscellaneous Expenses		NA	0.00	0.00	
20	DSM activities		NA	0.00	0.00	
	Continued...					

No	Particulars	Ref	Approved	Audited	Truing Up	Remarks
1	2	3	4	5	6	7
	...Continued					
21	SRPC expenses		NA	0.12	0.12	
22	Sports and related activities		NA	0.13	0.13	
23	Freight		NA	2.62	2.62	
24	Purchase Related Ads		NA	0.50	0.50	
25	Bank Charges		NA	0.00	0.00	
26	Office Expenses		NA	53.75	53.75	
27	License Fee Etc		NA	2.24	2.24	
28	Cost of services procured		NA	0.00	0.00	
29	Outsourcing metering and billing		NA	0.00	0.00	
30	V-sat, Internet and related charges		NA	0.06	0.06	
31	Security arrangements		NA	0.00	0.00	
32	Books & periodicals		NA	0.01	0.01	
33	Computer Stationery		NA	0.00	0.00	
34	Others		NA	0.12	0.12	
35	Other Purchase Expenses		NA	1.48	1.48	
36	Others– LED Distribution Expenditure		NA	-2.64	-2.64	
37	**Gross A&G Expenses**		NA	**70.66**	**70.66**	
38	**Ele. Duty u/s 3(I), KED Act**		NA	**0.00**		
39	Less: Expenses Capitalised		NA	5.67	5.67	
40	**Net A&G Expenses**		NA	**64.99**	**64.99**	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION Form T 2(c)- Repair & Maintenance Expenses (2016-17)						
No	**Particulars**	**Reference**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	Plant & Machinery		NA	30.50	30.50	
2	Buildings		NA	2.00	2.00	
3	Civil Works		NA	5.89	5.89	
4	Hydraulic Works		NA	0.05	0.05	
5	Lines & Cable Networks		NA	7.49	7.49	
6	Vehicles		NA	0.68	0.68	
7	Furniture & Fixtures		NA	0.12	0.12	
8	Office Equipment		NA	0.48	0.48	
9	**Gross R&M Expenses**		NA	**47.21**	**47.21**	
10	Less: Expenses Capitalised		NA			
11	**Net R&M Expenses**		NA	**47.21**	**47.21**	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION

Form T3 - Fixed assets & Depreciation (2016-17)

No	Assets Group	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	Adjustment & deductions	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		233.89	25.40		259.30	0.00	0.00		0.00	**233.89**	**259.30**
2	Other Civil works		361.12	36.15		397.27	87.40	14.02		101.42	**273.72**	**295.85**
3	EHV		0.00	0.00			0.00	0.00			**0.00**	**0.00**
	(a) Transmission lines		931.64	63.78		995.42	470.27	102.91		573.18	**461.37**	**422.24**
	(b) Sub-station equipments		767.91	17.97		785.88	341.02	10.42		351.44	**426.88**	**434.44**
	(i) Transformers		732.57	5.05		737.62	390.41	44.11		434.52	**342.17**	**303.10**
	(ii) Switchgeares etc		43.11	8.88		51.99	26.68	4.11		30.80	**16.43**	**21.19**
	(iii) Batteries		20.02	9.04		29.06	18.60	2.37		20.97	**1.42**	**8.09**
	(iv) Others		126.18	79.69		205.87	117.33	68.17		185.50	**8.85**	**20.37**
4	HV & LT		0.00	0.00			0.00	0.00			**0.00**	**0.00**
	(a) Transmission lines		642.06	71.99		714.04	326.21	12.28		338.49	**315.85**	**375.55**
	(b) Sub-station equipments		0.00	0.00			0.00	0.00			**0.00**	**0.00**
	(i)Transformers		56.49	68.86		125.35	49.23	46.43		95.67	**7.26**	**29.68**
	(ii)Switchgeares Etc			0.00			0.00	0.00			**0.00**	**0.00**
	(iii) Batteries		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**
5	Communication equipment		51.99	7.10		59.09	37.90	8.00		45.90	**14.09**	**13.19**
6	Meters		12.22	0.33		12.55	11.08	0.78		11.86	**1.14**	**0.69**
7	Vehicles		6.02	0.68		6.70	3.48	1.85		5.34	**2.54**	**1.37**

Continued...

No	Assets Group	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	Adjustment & deductions	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
	...Continued											
8	Furniture and Fixtures		4.92	0.35		5.27	3.12	0.97		4.09	**1.80**	**1.18**
9	Office Equipments		2.75	1.40		4.15	1.12	3.04		4.17	**1.62**	**-0.02**
10	Assets of Partnership projects etc.		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**
a)	EHV transmission		0.00	0.00			0.00	0.00			**0.00**	**0.00**
b)	HV & LT transmission		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**
13	IT equipments		6.69	0.41		7.10	4.61	1.51		6.12	**2.08**	**0.97**
14	Buildings		299.88	13.08		312.95	105.90	17.27		123.17	**193.98**	**189.78**
15	Any other items (Hydraulic Works)		10.00	0.02		10.02	3.36	0.98		4.34	**6.64**	**5.68**
16	Depreciation on Assets Capitalised [1]							**-128.27**				
17	Gross Asset (Total (1) to (14))		**4309.46**	**410.18**	**0.00**	**4719.64**	**1997.74**	**210.97**	**0.00**	**2336.98**	**2311.72**	**2382.66**
18	Less: Consumer contribution		15.82	15.32		31.14					15.82	31.14
19	Less: Government grants			63.80		63.80						
20	Less: Deposit Works											
21	Less: Capital Subsidies											
22	Net Asset for depreciation (15-16-17-18-19)		**4293.64**			**4688.50**					**2295.90**	**2351.52**
	[1] Depreciation of Assets Capitalised in the initial Balance sheets of IND AS											

Note: This form has been prepared in line with IND AS accounts. Depreciation claim as per petition differ due to the reasons stated in Chapter 5.

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION					
Form T 4(a) : Calculation of Weighted Average Rate of Interest on Actual Loans (2016-17)					
No.	**Particulars**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**4**	**5**	**6**	**7**
1	**Loan from LIC**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	0.00	0.00	
iv.	Add: Drawal(s) during the Year	NA	0.00	0.00	
v.	Less: Repayment (s) of Loans during the year	NA	-1.15	-1.15	
vi	IND Adj	NA	0.57	0.57	
vii	Net loan - Closing	NA	0.58	0.58	
viii	Average Net Loan	NA	0.29	0.29	
ix	Rate of Interest on Loan on annual basis	NA	9.00	9.00	
x	Interest on loan	NA	0.12	0.12	
2	**REC-Various schemes**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	244.19	244.19	
iv.	Add: Drawal(s) during the Year	NA	401.87	401.87	
v.	Less: Repayment (s) of Loans during the year	NA	17.92	17.92	
vi	IND Adj	NA	4.30	4.30	
vii	Net loan - Closing	NA	623.84	623.84	
viii	Average Net Loan	NA	434.02	434.02	
ix	Rate of Interest on Loan on annual basis	NA	8.50-12.37	8.50-12.37	
x	Interest on loan	NA	29.27	29.27	
Continued....					

No.	Particulars	Approved	Audited	Truing Up	Remarks
1	2	4	5	6	7
	Continued...				
3	**REC-For R-APDRP Part B**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	92.42	92.42	
iv.	Add: Drawal(s) during the Year	NA	40.92	40.92	
v.	Less: Repayment (s) of Loans during the year	NA	1.13	1.13	
vi	IND Adj	NA	21.43	21.43	
vii	Net loan - Closing	NA	110.78	110.78	
viii	Average Net Loan	NA	101.60	101.60	
ix	Rate of Interest on Loan on annual basis	NA	9.92-11.15	9.92-11.15	
x	Interest on loan	NA	12.24	12.24	
4	**REC-RGGVY**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	0.00	0.00	
iv.	Add: Drawal(s) during the Year	NA	1.37	1.37	
v.	Less: Repayment (s) of Loans during the year	NA	-3.70	-3.70	
vi	IND Adj	NA	0.98	0.98	
vii	Net loan - Closing	NA	4.09	4.09	
viii	Average Net Loan	NA	2.05	2.05	
ix	Rate of Interest on Loan on annual basis	NA	10.50-11.75	10.50-11.75	
x	Interest on loan	NA	0.53	0.53	
	Continued...				

No.	Particulars	Approved	Audited	Truing Up	Remarks
1	2	4	5	6	7
Continued...					
5	**REC-DDG Scheme**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	0.00	0.00	
iv.	Add: Drawal(s) during the Year	NA	0.04	0.04	
v.	Less: Repayment (s) of Loans during the year	NA	0.00	0.00	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	0.04	0.04	
viii	Average Net Loan	NA	0.02	0.02	
ix	Rate of Interest on Loan on annual basis	NA	10.50	10.50	
x	Interest on loan	NA	0.00	0.00	
6	**REC-Medium Term Loan**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	38.71	38.71	
iv.	Add: Drawal(s) during the Year	NA	0.00	0.00	
v.	Less: Repayment (s) of Loans during the year	NA	38.71	38.71	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	0.00	0.00	
viii	Average Net Loan	NA	19.36	19.36	
ix	Rate of Interest on Loan on annual basis	NA	12.75-13.00	12.75-13.00	
x	Interest on loan	NA	1.03	1.03	
Continued...					

No	Particulars	Approved	Audited	Truing Up	Remarks
1	2	4	5	6	7
	Continued...				
7	**PFC**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	55.39	55.39	
iv.	Add: Drawal(s) during the Year	NA	358.55	358.55	
v.	Less: Repayment (s) of Loans during the year	NA	0.68	0.68	
vi	IND Adj	NA	1.55	1.55	
vii	Net loan - Closing	NA	411.71	411.71	
viii	Average Net Loan	NA	233.55	233.55	
ix	Rate of Interest on Loan on annual basis	NA	9.08-11.75	9.08-11.75	
x	Interest on loan	NA	6.42	6.42	
8	**South Indian Bank**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	26.13	26.13	
iv.	Add: Drawal(s) during the Year	NA	0.00	0.00	
v.	Less: Repayment (s) of Loans during the year	NA	0.32	0.32	
vi	IND Adj	NA	1.40	1.40	
vii	Net loan - Closing	NA	24.41	24.41	
viii	Average Net Loan	NA	25.27	25.27	
ix	Rate of Interest on Loan on annual basis	NA	10.00	10.00	
x	Interest on loan	NA	2.58	2.58	
	Continued...				

No	Particulars	Approved	Audited	Truing Up	Remarks
1	2	4	5	6 = 5 - 4	13
	...Continued				
9	**RIDF of NABARD**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	0.00	0.00	
iv.	Add: Drawal(s) during the Year	NA	0.13	0.13	
v.	Less: Repayment (s) of Loans during the year	NA	0.00	0.00	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	0.13	0.13	
viii	Average Net Loan	NA	0.07	0.07	
ix	Rate of Interest on Loan on annual basis	NA	6.25	6.25	
x	Interest on loan	NA	0.00	0.00	
10	**PFC GEL KAKKAYAM**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	2.60	2.60	
iv.	Add: Drawal(s) during the Year	NA	6.75	6.75	
v.	Less: Repayment (s) of Loans during the year	NA	0.03	0.03	
vi	IND Adj	NA	1.05	1.05	
vii	Net loan - Closing	NA	8.27	8.27	
viii	Average Net Loan	NA	5.44	5.44	
ix	Rate of Interest on Loan on annual basis	NA	10.50-11.00	10.50-11.00	
x	Interest on loan	NA	0.84	0.84	
	Continued...				

No	Particulars	Approved	Audited	Truing Up	Remarks
1	**2**	**4**	**5**	**6**	**7**
	Continued...				
11	**SBI**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	217.76	217.76	
iv.	Add: Drawal(s) during the Year	NA	0.00	0.00	
v.	Less: Repayment (s) of Loans during the year	NA	67.76	67.76	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	150.00	150.00	
viii	Average Net Loan	NA	183.88	183.88	
ix	Rate of Interest on Loan on annual basis	NA	9.05	9.05	
x	Interest on loan	NA	19.92	19.92	
12	**Vijaya Bank**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	58.07	58.07	
iv.	Add: Drawal(s) during the Year	NA	120.00	120.00	
v.	Less: Repayment (s) of Loans during the year	NA	118.07	118.07	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	60.00	60.00	
viii	Average Net Loan	NA	59.04	59.04	
ix	Rate of Interest on Loan on annual basis	NA	8.65	8.65	
x	Interest on loan	NA	5.41	5.41	
	Continued...				

No	Particulars	Approved	Audited	Truing Up	Remarks
1	2	4	5	6	7
	Continued...				
13	**South Indian Bank**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	29.04	29.04	
iv.	Add: Drawal(s) during the Year	NA	120.00	120.00	
v.	Less: Repayment (s) of Loans during the year	NA	89.04	89.04	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	60.00	60.00	
viii	Average Net Loan	NA	44.52	44.52	
ix	Rate of Interest on Loan on annual basis	NA	9.00	9.00	
x	Interest on loan	NA	5.14	5.14	
14	**Bank of India**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans up to previous year	NA			
iii.	Net loan-Opening	NA	130.66	130.66	
iv.	Add: Drawal(s) during the Year	NA	292.50	292.50	
v.	Less: Repayment (s) of Loans during the year	NA	306.91	306.91	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	116.25	116.25	
viii	Average Net Loan	NA	123.46	123.46	
ix	Rate of Interest on Loan on annual basis	NA	8.75	8.75	
x	Interest on loan	NA	12.76	12.76	
	Continued...				

No	Particulars	Approved	Audited	Truing Up	Remarks
1	2	4	5	6	7
	Continued...				
15	**Syndicate Bank**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	29.04	29.04	
iv.	Add: Drawal(s) during the Year	NA	0.00	0.00	
v.	Less: Repayment (s) of Loans during the year	NA	29.04	29.04	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	0.00	0.00	
viii	Average Net Loan	NA	14.52	14.52	
ix	Rate of Interest on Loan on annual basis	NA	9.00	9.00	
x	Interest on loan	NA	0.69	0.69	
16	**Andhra Bank**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year	NA			
iii.	Net loan-Opening	NA	87.11	87.11	
iv.	Add: Drawal(s) during the Year	NA	330.00	330.00	
v.	Less: Repayment (s) of Loans during the year	NA	237.11	237.11	
vi	IND Adj	NA	0.00	0.00	
vii	Net loan - Closing	NA	180.00	180.00	
viii	Average Net Loan	NA	133.56	133.56	
ix	Rate of Interest on Loan on annual basis	NA	8.85	8.85	
x	Interest on loan	NA	11.18	11.18	
	Continued...				

No	Particulars	Approved	Audited	Truing Up	Remarks
1	2	4	5	6	7
	Continued...				
16	**Total Loan**				
i.	Gross Loan -Opening				
ii.	Cumulative repayments of Loans upto previous year				
iii.	Net loan-Opening	NA	1011.12	1011.12	
iv.	Add: Drawal(s) during the Year	NA	1672.13	1672.13	
v.	Less: Repayment (s) of Loans during the year	NA	901.87	901.87	
vi	IND Adj	NA	31.28	31.28	
vii	Net loan - Closing	NA	1750.10	1750.10	
viii	Average Net Loan	NA	1380.61	1380.61	
ix	Rate of Interest on Loan on annual basis	NA	7.83	7.83	
x	Interest on loan	NA	108.13	108.13	

Note: *Interest on loan (net of capitalization) as per trifurcated accounts amounts to Rs. 56.28 Cr. The reason for variation is due to the classification methodology adopted in accounts for trifurcation of expenses and IND AS adjustments as detailed in chapter 5.*

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION
Form T 4(b) : Calculation of Interest on Normative Loan (2016-17)

No	Particulars	Approved	Normative	Truing Up	Remarks
1	2	4	5	6 = 5 - 4	13
1	**Gross Normative loan - Opening**				
2	Cumulative repayment of Normative Loan up to previous year				
3	Net Normative loan - Opening	NA	1011.12	1011.12	
4	Increase/Decrease due to ACE/de-capitalization during the Year	NA	1672.13	1672.13	
5	Repayments of Normative Loan during the year	NA	901.87	901.87	
6	IND AS adjustments	NA	31.28	31.28	
7	Net Normative loan - Closing	NA	1750.10	1750.10	
8	Average Normative Loan	NA	1380.61	1380.61	
9	Weighted average Rate of Interest of actual Loans	NA	7.83	7.83	
10	Interest on Normative loan	NA	108.13	108.13	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION Form T5 : Interest on Working Capital Requirement (2016-17)						
No	**Particulars**	**Approved**	**Audited**	**Normative**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	O&M Expenses (as per Norms)	NA	41.63	NA	41.63	
2	Maintenance Spares	NA	43.09	NA	43.09	
3	Receivables calculated on Target availability	NA	84.75	NA	84.75	
4	Less : Amount held as security deposits except BGs	NA	0.00	NA	0.00	
5	Total Working Capital	NA	169.48	NA	169.48	
6	Interest rate	NA	13%	NA	13%	
7	**Interest on Working Capital**	**NA**	**22.03**	**NA**	**22.03**	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION Form T6 : Other items (2016-17)					
No	**Particulars (specify items)**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
1	Material Cost Variance	NA	-3.08	-3.08	
2	Research and Development Expenses	NA	0.05	0.05	
3	Miscellaneous Losses and Write Offs	NA	0.12	0.12	
4	Sundry Expenses	NA	-0.01	-0.01	
5	Fair value adjustment	NA	-3.79	-1.96	
6	Prior period expenses	NA	74.83	74.83	
7	Net chargeable to revenue(A-B)	NA	68.11	69.94	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION							
	Form T 7 : Return on Equity/Return on Net Fixed Assets (2016-17)						
No.	**Particulars**	**Ref.**	**Approved**	**Audited**	**Normative**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	Equity at the beginning of the year		1554.20	...	1554.20	1554.20	
2	Capitalisation		...	...	...	...	
3	Equity portion of capitalisation		...	...	...	...	
4	Equity at the end of the year		...	...	...	...	
	Return Computation						
5	Return on Equity at the beginning of the year	14%*(1)	217.59	151.83	217.59	217.59	
6	Return on Equity portion of capitalisation	14%*(3)/2		...			
7	**Total Return on Equity**	**(5)+(6)**	217.59	...	217.59	217.59	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION									
Form T9 : Revenue at Existing Transmission Tariff (2016-17)									
S. No	Category	Energy Transmitted	Transmission Tariff			Revenue from Transmission (Rs. Cr.)			
			Capacity based Charge (Specify part name and unit)	Energy based charge, (Ps./ unit)	Any other charge (Specify part name and unit)	Capacity based Charges	Energy based Charges	Any other charge (Please specify)	Total
1	2	3	4	5	6	7	8	9	10
I	**Long Term Open Access**								
A	**Distribution Licensees : KSEBL**	**23763.58MU**				1017.05			1017.05
II	**Short Term Open Access**								
1	Philips Carbon	-43.056235		26			1.12		1.12
2	Apollo Tyres Perambra	44.7692		26			1.16		1.16
3	Carborundum UniversaL Koratty	39.071545		26			1.02		1.02
4	Carborundum Universal Kalamassery	59.4737575		26			1.55		1.55
5	EICL Trivandrum	8.281295		26			0.22		0.22
6	EICL Veli	7.576665		26			0.20		0.20
7	Hindustan_Newsprint Kottayam	64.0430775		26			1.67		1.67
8	Premier_Tyres Kalamassery	15.28648		26			0.40		0.40
9	Indsil_Electrosmelts Palakkad	47.0575075		26			1.22		1.22
10	Kerala_Minerals_and_Metals_ Chavara	45.84317		26			1.19		1.19
11	Patspin Palakkad	23.937075		26			0.62		0.62
12	FCI_OEN_Connectors	7.09104		26			0.18		0.18
13	MRF Kottayam	39.4947425		26			1.03		1.03
14	Hindalco, Kalamassery	8.49782		26			0.22		0.22
15	Kaypee_Metals Kollam	2.25141		26			0.06		0.06
17	Precot_Meridian Kanjikode	13.1199925		26			0.34		0.34
18	GTN_Textiles Aluva	7.97542		26			0.21		0.21
19	Precot_Meridian, Walayar	1.5282275		26			0.04		0.04
20	Vijaya_Mohini, Thirumala	0.30585		26			0.01		0.01
21	**sub-total**						**12.45**		**12.45**
22	**Total**								

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION Form T 10 :Non-tariff Income (2016-17)					
No	**Particulars**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
	Non Tariff Income				
1	Interest on staff loans and advances	NA	0.02	0.02	
2	Income from statutory investments	NA	0.00	0.00	
3	Income from rent of land or buildings	NA	0.43	0.43	
4	Income from sale of scrap	NA	2.48	2.48	
5	Income from staff welfare activities	NA	0.00	0.00	
6	Rental from staff quarters	NA	0.10	0.10	
7	Excess found on physical verification	NA	0.03	0.03	
8	Interest on investments Etc	NA	0.04	0.04	
9	Interest on advances to suppliers/contractors	NA	0.04	0.04	
10	Hire charges from contractors and others	NA	0.00	0.00	
11	Income from Cable ROW granted	NA	0.00	0.00	
12	Income from advertisements, etc.	NA	0.00	0.00	
13	Miscellaneous receipts	NA	32.33	32.33	
14	Interest on delayed or deferred payment	NA	0.00	0.00	
	Total Non-Tariff Income	NA	**35.46**	**35.46**	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION Form T 13 : Consumer Contribution, Capital Subsidy and Grant (2016-17)					
No.	**Performance parameters**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
1	Consumer Contribution	NA	31.14	31.14	
2	Subsidies for Capital Assets	NA	0.00	0.00	
3	Grants	NA	63.80	63.80	
4	**Total**	**NA**	**94.94**	**94.94**	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION Form T 14 : Proposed improvement in performance (2015-16)			
No.	**Performance parameters**	**Actual for the previous year**	**Remarks**
1	**2**	**3**	**4**
1	EHV Transmission losses	4.56%	
2	System availability		
	(a) 400 kV System		
	(b) 220 kV System	98.36	
	(c)110 kV System	98.54	
	(d) 66 kV Systerm	98.98	
	(e) 33 kV System		
3	Total System Availability	98.52	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION Form T 15 : Transmission & Distribution Losses (2016-17)						
No	**Particulars**	**Unit**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	**Energy input into the system**					
(a)	Energy from the sources Inside the State (T-G interface)(incl PCBL gen)	MU	4376.87	4370.16	4370.16	
(b)	Energy from the sources outside the State (State Periphery)	MU	19578.65	19050.17	19050.17	
©	Open access transactions		0	392.54	392.54	
(c)	Total (a)+(b)+©	MU	23955.52	23812.87	23812.87	
2	Energy transmitted to Discoms (including their direct EHT consumers)	MU	20625.7	20038.25	20038.25	
3	Energy transmitted to open access consumers	MU		414.66	414.66	
4	Energy transmitted for inter-state sale	MU		49.3	49.3	
5	**Intra-State transmission and distribution losses (1(c)-(2+3+4))/1(c))**			13.93%	13.93%	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION Form T 17 : Deviation Analysis					
No	**Particulars**	**Approved**	**True up**	**Deviation**	**Reason**
1	2	3	4	5	6
1	Operation & Maintenance Expenses	193.82	372.49	178.67	
2	Terminal Benefits		127.07	127.07	
3	Interest and finance charges on long-term loans	183.39	56.28	-127.11	
4	Interest on Bonds to meet Terminal Liabilities	87.14	0.00	-87.14	
5	Interest on GPF	14.04	0.00	-14.04	
6	Other interest	1.07	0.00	-1.07	
7	Depreciation	184.25	183.20	-1.05	
7	Interest on Working Capital and User				
8	Contribution to contingency reserves				
9	Other items				
10	Adjustment for controllable/uncontrollable factors				
11	Other items		69.94	69.94	
12	**Total Revenue Expenditure**	**663.71**	**808.98**	145.27	
13	Return on Equity	217.59	217.59	0	
14	Tax on RoE			0	
15	**Aggregate Revenue Requirement (9+10+11)**	**881.30**	**1026.57**	145.27	
D	**Revenue**				
1	Revenue from sale of electricity/ Transfer price	881.30	991.11	109.81	
2	Less: Non Tariff Income	0.00	35.46	35.46	
3	Less: Revenue from Open Access				
4	Less: Income from Other Business				

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION Form T P&L : Profit & Loss Account (2016-17)					
No	**Particulars**	**Ref**	**2016-17**	**2015-16**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
I	**INCOME**				
	(a) Revenue from Sale of Power		991.11	751.62	
	(b) Revenue Subsidies and Grants				
	(c) Other Income		35.46	33.74	
	Total (a+b+c)		**1026.57**	**785.36**	
II	**EXPENDITURE**				
	(a) Repairs and Maintenance.		47.21	47.91	
	(b) Employee Cost		296.60	277.39	
	Terminal benefits		127.07	37.09	
	(c) Administration and General Expenses		70.66	50.41	
	(d) Depreciation		183.20	133.04	
	(e) Interest and Finance charges		64.63	49.63	
	Purchase of Power				
	(f) Subtotal (a+b+c+d+e)		**789.37**	**573.53**	
	(g) Less Capitalised Expenses:				
	- Interest & Finance Charges		8.35		
	- Other Expenses		41.98		
	(h)Other Debits		-2.93	-1.64	
	(i) Change in Fair value adjustment		-1.96		
	I. Extra Ordinary Items				
	Total Expenditure (f-g+h+i)		**734.15**	**571.89**	
III	**Profit /(Loss) before Tax (I-II)**		292.42	213.47	
IV	**Provision for Income Tax**		0.00		
V	**Net Prior period credits (Charges)**		-74.83	4.12	
VI	**Surplus (Deficit)**		**217.59**	**217.59**	
VII	**Net Assets at year start**				
VIII	**Rate of Return (VI / VII)**				

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION					
Form T BS : Balance Sheet at the end of the year (2016-17)					
No	**Particulars**	**Ref**	**2016-17**	**2015-16**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
I	**Sources of Funds:**				
(A)	Capital Funds:				
	Share Capital (Govt. equity)		750.72	1015.96	
	Reserves & Surplus				
	Total (A)		**750.72**	**1015.96**	
(B)	Loan from State Government				
	Loan from others :				
	-Secured		566.25	459.45	
	-Unsecured		1183.86	551.67	
	Total (B)		**1750.11**	**1011.12**	
(C)	Contribution, grants & etc		94.94	15.92	
	Provident Fund		227.41	156.15	
	Terminal Benefit Fund		-383.98	46.98	
	Borrowings for working capital				
	Long term Provision		236.38	274.98	
	Grand total of sources of funds (A+B+C)		**2675.57**	**2521.11**	
	Continued…				

No	Particulars	Ref	2016-17	2015-16	Remarks
1	2	3	4	5	6
	...Continued				
	***Application of Funds:**				
(A)	Fixed assets				
	(a) Gross fixed assets		4591.37	4309.46	
	(b) Less accumulated depreciation		2208.71	1997.74	
	(c) Net Fixed assets((a)-(b))		**2382.66**	**2311.72**	
	(d) Capital works in progress		352.34	495.70	
	(e) Assets not in use				
	(f) Deferred costs		0.01	0.01	
	(g) Intangible assets				
	(h) Investments		4.85	4.84	
	(i)Other Non current assets		22.83	9.17	
	Total (c) +(d)+(e)+(f)+(g)+(h)+(i)		**2762.69**	**2821.44**	
(B)	Subsidy receivable from Government				
	Govt Contribution for pension liability		592.22	665.39	
(C)	Net Current Assets				
	(1) Current assets, loans and advances				
	(a) Inventories*		56.82	65.96	
	(b) Receivables against transmission charges				
	(c) Cash & bank balances		8.96	20.43	
	(d) Loans and advances		4.63	8.76	
	(e) Sundry receivables		33.69	80.40	
	Total (C1)		**104.10**	**175.55**	
	(2) Current liabilities & provisions				
	(a) Security Deposits from Consumers				
	(b) Borrowings for working capital		264.00	651.58	
	(c) Payments due on Cap. liabilities				
	(d) Other current liabilities		519.44	489.69	
	Total (C2)		**783.44**	**1141.27**	
	Net Current Assets (C = C1-C2)		**-679.34**	**-965.72**	
(D)	**Grand Total of Application of funds (A)+(B)+(C)**		**2675.57**	**2521.11**	

KERALA STATE ELECTRCITY BOARD LIMITED - STATEGIC BUSINESS UNIT - TRANSMISSION					
	Form T CF : Cash Flow for the year (2016-17)				
No.	Particulars	Ref	2016-17	2015-16	Remarks
1	2	3	4	5	6
I	**Net Funds from Operations**				
1	Net Funds from Earnings :				
	(a) Profit before tax and before revenue subsidies and grants		151.81	157.47	
	Less : Income Tax Payment during the year				
	Total of (a)		**151.81**	**157.47**	
	(b). Add: Debits to rev. account not requiring cash Flow:				
	(I) Depreciation		339.24	133.04	
	(ii) Depreciation on Assets capitalized in the initial BS of the IND As Accounts		-128.27		
	(ii) Amortization of Deferred costs				
	(iii) Amortization of Intangible Assets				
	(iv) Investment Allowance Reserve				
	(v) Others, if any		-38.60	282.77	
	Total of (b)		**172.37**	**415.81**	
	(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)		**324.18**	**573.28**	
2	Contributions, Grants & Subsidies to cost of Capital Assets		79.02	12.02	
3	Security Deposit from consumers				
4	Proceeds from disposal of fixed Assets				
5	**Total Funds from Operations (1+2+3+4)**		**403.20**	**585.30**	
	(Continued…				

No.	Particulars	Ref	2016-17	2015-16	Remarks
1	**2**	**3**	**4**	**5**	**6**
	....Continued				
6	Net Increase/(Decrease) in working Capital				
	(a) Increase/(Decrease) in Current Assets				
	(I) Inventories		-9.14	8.47	
	(ii) Receivables against transmission charges				
	(iii) Loans and Advances		-4.13	-10.19	
	(iv) Sundry receivables		-46.71	1.86	
	(v)Subsidy receivables				
	Total of (a)		**-59.98**	**0.14**	
	(b) Increase/(Decrease) in Current liabilities				
	(I)Borrowings for working Capital		-387.58	18.43	
	(ii) Other current liabilities		29.75	103.92	
	(iii) Others (Increase in Reserve + payment due on cap.liab)				
	Total of (b)		**-357.83**	**122.35**	
	Net Increase/(Decrease) in working Capital (a)- (b)		**297.85**	**-122.21**	
7	Net Funds from operations before subsidies and Grants (5-6)		**105.35**	**707.51**	
8	Receipts from revenue subsidies and Grants		73.17	-293.13	MINUS
	Total Net Funds from operations including subsidies & Grants (7+8)		**178.51**	**414.38**	
II.	**Net increase/ decrease in Capital liabilities**				
	a). Fresh borrowings				
	I) State Loans				
	ii) Foreign currency Loans / Credits				
	iii) Other borrowings		1672.13	775.40	
	Total of (a)		**1672.13**	**775.40**	
	b) Repayments :				
	I) State Loans				
	ii) Foreign currency Loans / Credits				
	iii) Other borrowings		933.14	713.33	
	Total of (b)		**933.14**	**713.33**	
	Net Increase/(Decrease) in Capital liabilities (a) - (b)		**738.99**	**62.07**	
	Continued…				

No.	Particulars	Ref	2016-17	2015-16	Remarks
1	2	3	4	5	6
	....Continued				
III.	**Increase/(Decrease) in equity Capital**		-417.05	-164.69	
IV.	**Total Funds available for Capital Expenditure (I+II+III)**		**500.45**	**311.76**	
V	**Funds utilised on Capital Expenditure**				
	a)On projects		138.55	322.2	
	b)Advance to Suppliers & Contractors				
	c) Intangible Assets				
	d) Deferred Cost		0.00	-0.02	
	e) Long Term Loans and Advances		13.66	0.24	
	Total of V (a+b+c+d)		**152.21**	**322.42**	
VI	**Net Increase/(Decrease) in Government contribution**				
VII	**Net Increase/(Decrease) in Terminal benefit fund**		-430.96	0.91	
VIII	**Net Increase/(Decrease) in Provident fund**		71.26	14.86	
IX	**Net Increase/(Decrease) in investments**		0.01	3.82	
X	**Net Increase /(Decrease) in cash / bank balance (IV - V- VI-IX)+ (VII+VIII)**		-11.47	1.29	
XI	**Add opening cash & Bank balance**		20.43	19.14	
XII	**Closing Cash & Bank balance (X+XI)**		**8.96**	**20.43**	

--------------- ***End Chapter 3*** -------------------------

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

4.1 An overlook on Kerala Distribution network: Kerala State Electricity Board Limited supplies electricity to about 3.39 coroe of entire population across 14 districts in Kerala. There are about 89.8 Lakh domestic consumers, 18.3 Lakh commercial consumers, 1.4 Lakh industrial consumers, 4.61 Lakh agricultural consumers. The key statistics of distribution network is given below:

Table-D1 Key Statistics of KSEBL Distribution Network as on 31.03.2017

Particulars	Statistics
Area Sq.km.	38863 km^2
Districts No's	14
Electrical Circle Offices	25
Population in Cr	3.39
Consumers (Nos)	11994816
Distribution transformers (Nos)	75579
HT lines (Ckt. Kms)	61398.43
LT lines (Ckt. Kms)	291328
Energy sales in MU	20038.25
Energy consumption (incl open access & captive consumption) in MU	20479.80
Per capita consumption in units	592
Consumption per consumer in units	1707.39
T&D loss in % (including transmission loss)	13.93%

The various performance parameters of KSEBL distribution system recorded substantial increase in 2016-17 from the year 2002-03, as depicted in the table below:

Table-D2 : Growth of KSEBL Distribution system

Particulars	Units	2002-03	2016-17	% increase
Consumers	Nos	6947803	11994816	72.64
Energy sales n MU	MU	8752.1	20038.25	128.95
T&D loss	%	29.08%	13.93%	-15.15
Revenue demand	Cr	2480.69	11036.78	344.91
Distribution transformers	Nos	32637	75579	131.58
33 KV lines	Ckt Km	408.17	1902.43	366.09
11 KV& 22 KV lines	Ckt Km	31455	59496	89.15
LT lines	Ckt Km	199721	291328	45.87

4.2 Availability of Electricity for Supply: The petitioner had ensured 100% gross availability of power for supply in the state during the year. There had been no power cut or load shedding enforced in the state because of shortage of supply except for emergency supply interruptions caused by uncontrollable factors. The gross availability of electricity for supply for 2016-17 as per regulations was

102.75 % and the month-wise details of power availability to meet the base load and peak load is given as **Appendix D7**.

4.3 Energy Sales for 2016-17: Honourable Commission, vide suo-moto order dated 17.04.2017, had approved 20625.70 MU for the year 2016-17. Actual energy sale of KSEBL for the year 2016-17 was 20038.25 MU. Embedded open access consumers had drawn 414.66 MU through open access. Further 26.89 MU was adjusted as banking adjustments. Thus the total energy consumption at consumer end was 20479.80 MU. The actual energy sale by KSEBL was 587.45 MU less than approval. Considering the impact of open access and banking adjustments, the difference between approval quantum and actual quantum was only 145.90 MU (0.7%).

4.3.1 The energy sale in 2016-17 was 20038.25 MU against 19325.07 MU in 2015-16. The total energy consumption at consumer end for the year 2016-17 was 20479.80 MU against 19460.32 MU during 2015-16.The overall growth in energy sale by KSEBL in 2016-17 over 2015-16 had been 3.69%. The overall growth in energy consumption at consumer end including open access and captive generation was 5.24%. Details in respect of consumption of different categories of consumers during the year 2016-17 over previous year are given in **below**.

Table-D3: Energy sales in MU for 2016-17 Comparison with previous year

Category	Tariff code	Energy sales(MU)		Change
LT category		(2015-16)	(2016-17)	(%)
Domestic	LT I	9936.22	10274.70	3.41
Colonies (	LT II	7.26	6.03	-16.88
Temporary Connections	LT III	5.68	1.65	-71.04
Industrial	LT IV	1103.23	1131.91	2.60
Agriculture	LT V	279.48	321.98	15.21
General	LT VI	1396.61	1523.87	9.11
Commercial	LT VII	1331.39	1430.66	7.46
Public Lighting	LT VIII	366.62	375.77	2.49
Adv and Hoardings	LT IX	1.68	1.78	6.22
LT total		**14428.17**	**15068.35**	**4.44**
HT Category				
HT Industrial	HT I	1852.13	1952.53	5.42
HT General	HT II	678.04	722.18	6.51
HT Agriculture	HT III	6.82	9.22	35.21
HT Commercial	HT IV	584.39	604.23	3.39
HT Domestic	HT V	9.56	13.67	42.97
EHT category				
EHT 66 KV Industrial	EHT I	233.12	187.96	-19.37
EHT 110 KV Industrial	EHT II	639.82	507.72	-20.65
EHT 220 KV Industrial	EHT III	33.75	65.97	95.48
EHT General		68.38	64.73	-5.34
Railway Traction		212.83	229.59	7.87
Bulk Licensees		578.08	612.10	5.88
HT &EHT & Bulk Supply		4896.90	4969.90	1.49
Total		**19325.07**	**20038.25**	**3.69**
Open Access Drawal		135.25	414.66	

Captive Consumption			26.89	
Grand Total		**19460.32**	**20479.80**	**5.24**

4.3.2 The energy consumption in 2016-17 in respect of certain categories of consumers shows significant changes when compared to the consumption in previous year. The **domestic consumption** has increased by only 3.41% against the average growth rate of 6% during the previous years except 2015-16. This is mainly due to the DSM programme Domestic Efficient Lighting Programme (DELP), in which two 9 Watts LED bulbs were distributed to the consumers in domestic category and captive solar generation. About 452 MU was the annual expected savings in consumption for one crore bulbs. About 1.27 Cr bulbs were distributed during 2016-17. **The Agricultural Consumption** show substantial increase (LT-15.42%; HT- 35.21%). This could be due to severe shortage in rainfalls persisted throughout the year. The **Industrial consumption** increased by 2.60 % and 5.42 % under LT and HT categories against 0.54 % and 0.53% in previous year. The overall growth in HT Industrial category (including energy drawal through Open access) was 6.31% against 0.86% in previous year. There is also significant decrease in energy sales in EHT category (66 & 110 KV industrial category) in 2016-17 compared to the previous year. This may be due to the impact of open access and increase in own generation of captive consumers. When impact of open access drawal and captive generation is considered, the increase in total energy consumption of HT & EHT was 7.75%.

4.3.3 Total energy sales show an increase of 3.69% during the year 2016-17 against 4.88 % in 2015-16. But the total consumption (including drawal through open access and captive generation) was 20479.80 MU, that is, an increase of 5.24%. During the year 2016-17, 49.30 MU had been sold outside the state. Embedded open access consumers imported about 414.66 MU and injected by IPPs for sale outside the State through open access was 45.08 MU. The details are enclosed as **below.**

Table-D4: Open Access Energy Transactions (2016-17)

No	Open Access Consumer	Energy at Kerala Periphery (MU)	Energy at consumer end (MU)	Line Loss (MU)
	Energy sale outside the State through open access (Export)			
1	Philips Carbon Black Limited, Kochi	-43.06	-45.08	2.02
	Energy purchase from outside the State through open access (Import)			
2	Apollo Tyres, Perambra	44.77	42.76	2.01
3	Carborundum Universal, Koratty	39.07	37.33	1.74
4	Carborundum Universal, Kalamassery	59.47	56.79	2.69
5	EICL,Pothencode	8.28	7.48	0.80
6	EICL,Veli	7.58	6.85	0.73
7	Hindustan Newsprint Ltd	64.04	61.16	2.88
8	Premier Tyres	15.29	14.58	0.70
9	INDSIL Electromelts	47.06	44.93	2.12
10	KMML, Chavara	45.84	43.77	2.08
11	Patspin India, Kanjikkode	23.94	22.87	1.07
12	FCI OEN - Connectors Limited,	7.09	6.39	0.70
13	MRF Ltd	39.49	37.72	1.78
14	Hindalco Kalamassery	8.50	8.11	0.39
15	Kaypee Metals and Alloys	2.25	2.03	0.22
16	Precot Meridian, Palakkad	13.12	12.54	0.58
17	GTN Textiles, Aluva	7.98	7.62	0.36

18	Precot Meridian, Walayar	1.53	1.46	0.07
19	Vijaya Mohini Mills Thirumala	0.31	0.27	0.03
	Total Import	**435.60**	**414.66**	**20.94**

4.3.4 A comparison of actual and approved energy sales is given as in Table-D5 below**:**

Table-D5: Energy Sales Comparison			
Category	**Approved**	**Actual**	**Difference**
LT - I – Domestic	10648.42	10274.70	-373.72
LT - VI and LT VII	3030.24	2957.95	-72.29
LT- IV –Industrial	1109.91	1131.91	22.00
LT-V-Agricultural	283.41	321.98	38.57
LT-Street Lights	378.45	375.77	-2.68
LT II-Colony	7.9	6.04	-1.86
LT Total	**15458.34**	**15068.35**	-389.99
HT I-Industry	1929.26	1952.53	23.27
HT II-General	730.07	722.18	-7.89
HTIII-Agriculture	6.85	9.22	2.37
HT IV-Commercial	622.01	604.23	-17.78
HT V-Domestic	11.18	13.67	2.49
HT Total	**3299.36**	**3301.83**	2.47
EHT-I,II&III	1026.55	826.38	-200.17
Railway Traction	232.06	229.59	-2.47
Bulk Licensees/ consumers	609.39	612.10	2.71
HT & EHT Total	**5167.36**	**4969.90**	-197.46
Total	**20625.7**	**20038.25**	**-587.45**

4.3.5 The consumption pattern for 2016-17 is given in table below:

Table-D6 : Consumption pattern for 2016-17			
No	**Category**	**Energy sales**	
		MU	**%**
1	Domestic	10280.74	51.31
2	Industrial	1131.91	5.65
3	Agriculture	321.98	1.61
4	Commercial	2957.95	14.76
5	Public Lighting	375.77	1.88
6	HT &EHT Total	4128.21	20.60
7	Railway Traction	229.59	1.15
8	Bulk Supply	612.10	3.05
9	**Total sales (within state)**	**20038.25**	100.00
10	Interstate sale	49.30	
11	Total	20087.55	

4.4 **T & D Loss:** Hon Commission vide order dated 17.04.2017 had approved the loss reduction target as 0.30%, over the loss level of 2015-16 and approved the target as 13.90% for the year 2016-17.Honourable Commission approved the transmission loss as 4.50%, distribution losses up to HT level as 5.5% and loss for providing supply at LT level as 11.76%(HT loss +LT loss corresponding to LT sales). The total T&D loss achieved for the year was 13.93%. As against the approved target of 0.30%, KSEBL was able to reduce the T&D loss by 0.44%. The total energy input into the KSEBL system, energy sales and T&D loss reduction targets as per the KSERC order and the actuals are detailed below.

4.4.1 Hon 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 13.93% during the year 2016-17. 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. Further, works for 100% electrification was carried out during the year by constructing more LT lines, which also contributed to the rise in losses. 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 achieve a cumulative loss reduction of 16.83% from the level of 30.76% in 2001-02 to 13.93% in 2016-17. By reducing the T&D loss by 16.83% over the last ten years, KSEBL was able to reduce Generation and Power purchase by 5614.33 MU during the year 2016-17 alone. At an average purchase rate of Rs 3.50 per unit, this has resulted in reducing the Generation and Power purchase cost by Rs 1965 Cr. KSEBL has been continuing its efforts to reduce the T&D loss further and has been passing on the entire savings to the consumers. Considering the consistent and earnest efforts of KSEBL on T&D loss reduction, Hon Commission may kindly approve the actual T&D loss as per the audited accounts.

4.5 **Voltage wise Distribution loss:** The actual transmission and distribution loss during the year 2016-17 was 13.93%.It may please be noted that the total transmission loss (explained in chapter 3) corresponding to peak demand up to 66 KV level was 4.27%. The loss associated with 33 KV level corresponding to peak demand was 2.45% based on load flow studies. Assuming 5.5% loss at HT level the voltage wise distribution loss is as follows.

Table - D8: Voltage wise distribution losses

No	Particulars	Quantum	Unit
i	Total Generation and Power Purchase @ State periphery	23763.58	MU
ii	Transmission loss @4.27%	1015.75	MU
iii	Total energy input into the distribution system (i)-(ii)	22747.83	MU
iv	Sale of energy at EHT level	1944.69	MU
v	Distribution loss associated with sale at EHT level[1]	0	MU
vi	Energy available for sale at HT&LT levels (iii)-(iv)-(v)	20803.14	MU
vii	Sale at 33 KV voltage level	118.36	MU
viii	Loss @ 33 KV in %	2.45	%
ix	Loss @ 33 KV	508.84	MU
x	Energy available for sale at 11 KV&LT levels (vi)-(vii)-(ix)	20175.94	MU
xi	Sale of energy at 11 KV level	3321.51	MU
xii	Loss at 11 KV (5.5% loss up HT level) [(vi) x 5.5%]-(ix)]	635.33	MU
xiii	Loss at 11 KV level [(xi)*100/(x)]	3.15	%
xiv	Loss up to HT level	5.5	%
xv	Distribution loss associated with HT level	1144.17	MU
xvi	Energy input for sale at LT level(x)-(xi)-(xii)	16219.10	MU
xvii	Sale of energy at LT level	15068.35	MU
xviii	Distribution loss at LT level(xvi)-(xvii)	1150.75	MU
xix	Distribution loss at LT level [(xviii)*100/(xvi)]	7.10	%
xx	Distribution loss (xv)+(xviii) excluding EHT level	2294.92	MU

xxi	Total distribution loss (xx)*100/(vi) excluding EHT level	11.03	%
xxii	Total distribution loss including EHT sales [(xx) .100/(iii)]	10.09	%
[1] Accounted against item (ii)			

4.6 **Actual ARR :** The Distribution Business Unit of the petitioner had sold a total of 20038.25 MU in the year within the state. The sum of energy sold (within and outside state) and system losses was the total requirement (23325.95 MU) in the year. SBU G was able to supply about 4325.08MU (18.54%) only of the total requirement and balance was purchased from CGS and IPPS within and outside the state. A comparative statement showing summary of ARR & ERC for SBU-D as approved by Hon Commission, actual for the year and difference is given below. The details of variation from approval in expenditure, income and the revenue gap are explained in the following paragraphs.

TABLE – D9 : ACTUAL ARR OF DISTRIBUTION BUSINESS UNIT (Rs Cr)

No	Particulars	True up 2015-16	Approved 2016-17	Actual 2016-17	True up 2016-17	Difference
1	**Cost of Generation (SBU-G)**	**633.37**	**672.61**	**744.39**	**695.23**	**-22.62**
2	**Cost of Power Purchase**	**5912.38**	**7145.22**	**6907.96**	**7047.79**	**97.43**
3	**Cost of Inter-State Transmission**	**424.44**	**607.54**	**485.36**	**503.62**	**103.92**
4	**Cost of Intra-State Transmission (SBU-T)**	**751.62**	**881.30**	**951.29**	**991.11**	**-109.81**
5	Interest & Financial Charges	792.41		902.45	888.74	
6	Less: Capitalized	51.22		48.86	48.86	
7	**Balance**	**741.19**	**981.79**	**853.59**	**839.88**	**141.91**
8	**Depreciation**	**236.13**	**58.12**	**354.17**	**245.51**	**-187.39**
9	Employee cost	1857.50		1918.60	1918.60	
10	Less: Capitalized	114.68		130.33	130.33	
11	Balance	1742.82		1788.27	1788.27	
12	R&M expenses	185.82		190.21	190.21	
13	A&G expenses	263.93		306.77	306.77	
14	Less: Capitalized	2.78		6.66	6.66	
15	Balance	261.15		300.11	300.11	
16	**O&M Expenses**	**2189.79**	**1326.62**	**2278.59**	**2278.59**	**-951.97**
17	**Terminal benefits**	**927.01**		**1012.16**	**1012.16**	**-1012.16**
18	**Return on equity (14%)**	**68.64**	**68.64**	**0.00**	**68.64**	**0.00**
19	**Other Expenses**	**98.30**	**0.00**	**-90.39**	**-61.35**	**61.35**
20	**Total ARR**	**11982.87**	**11741.84**	**13497.12**	**13621.18**	**-1879.34**
21	Less Tariff Income	10487.71	10900.72	11218.83	11036.77	**-136.05**
22	Less Non-Tariff Income	686.27	441.00	343.09	479.82	**-38.82**
23	**Total ERC**	**11173.98**	**11341.72**	**11561.92**	**11516.59**	**-174.87**
24	**Net Revenue Gap**	**808.89**	**400.12**	**1935.20**	**2104.59**	**-1704.47**

4.6.1 Cost of Generation: This is the net ARR of the SBU-G transferred to SBU-D. Deviation from approval is explained in chapter dealing with Truing up of SBU G.

4.6.2 Cost of Purchase of power: Hon Commission had approved a cost of **Rs. 7752.77 Cr** for purchase of **19579.06 MU of** energy from various sources. The actual power purchase quantum was 19050.17 MU at a cost of **Rs 7551.42 Cr** as given **Form D3.1.** Cost of power purchase as per accounts amounted to Rs. 7393.31 Cr and the difference in power purchase as per petition and accounts arose due to certain adjustments carried out as part of IND AS, which are detailed in chapter 5. Actual expenses were less than the approved expenses by **Rs.201.36 Cr**. A summary of the approved and actual power purchase are given in **Table- D10** below. The source wise details are given in **Appendix-D6**. Hon

Commission may please note that the petitioner had taken earnest effort to obtain power at the lowest cost from those sources without imposing any load shedding or power restriction in the state.

Table – D10: Power Purchase for the year 2016-17							
No	Particulars	Approved		Actual		Variation	
		Energy (MU)*	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)	Energy (MU)	Cost (Rs Cr)
1	Central Gen. Stations	9734.09	3203.32	10205.8	3413.34	471.71	210.02
2	Small IPPs within the State	142.42	45.87	172.06	50.08	29.64	4.21
3	*RGCCPP, Kayamkulam (net)*	*0*	*0*	*6.77*	*216.52*	6.77	216.52
4	*BSES*				*-8.95*	0.00	-8.95
4	*KPCL (Settlement)*	*0*	*0*	*0*	*26.59*	0.00	26.95
3	IPPs / Traders outside state	7302.84	2936.16	7250.91	2965.69	-51.93	29.53
4	Traders / Exchanges/UI	2399.71	959.88	1414.63	384.52	-985.08	-575.36
5	Transmission charges		607.54		503.62		-103.92
6	Total	19579.06	7752.77	19050.17	7551.41	-528.89	201.36
* Energy at KSEB Bus.							

4.6.2.1 Power Purchase from Central Generating Stations: A comparison of approved and actual energy purchased from CGS and their costs are given in the **Table-D11** below.

Table-D11 : Power Purchased from Central Generating Stations for FY 2016-17						
Station	Approved		Actual		Difference	
	Energy* (MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)
Talcher	2874.29	672.7	3065.45	810.65	191.16	137.96
NLC Exp Stage I	423.13	157.57	468.63	195.93	45.5	38.36
NLC II Stage I	363.07	113.67	465.24	215.99	102.17	102.32
NLC II Stage II	518.77	163.08	609.87	283.66	91.1	120.59
RSTPS I & II & III	1655.64	549.51	1825.03	546.98	169.39	-2.53
RSTPS III	416.46	155.32	441.44	140.97	24.98	-14.35
Maps	122.49	26.79	137.75	33.94	15.26	7.15
Kaiga Stage I & II	421.06	136.51	476.02	158.51	54.96	22
Simhadri Exp	617.5	277.91	669.47	286.73	51.97	8.82
Kudamkulam	1009.38	420.21	1060.33	362.09	50.95	-58.12
NLC II exp	401.4	182.8	190.15	104.56	-211.25	-78.24
NTECL Vallur JV	341.93	132.28	311.57	139.86	-30.36	7.58
NTPL Tuticorin	492.86	183.17	484.84	209.24	-8.02	26.07
Kudgi Unit I	18.67	8.03	0	0	-18.67	-8.03
Bhavini	57.44	23.79	0	0	-57.44	-23.79
Jhajjar	0	0	0	38.9	0	38.9
Less: Credit notes received in 2017-18				-114.66		-114.66
Total	**9734.09**	**3203.32**	**10205.8**	**3413.34**	**471.71**	**210.02**

*energy at Kerala periphery.

While estimating availability from CGS, it was expected that Bhavini nuclear power plant and unit I of Kudgi Power plant would be commissioned in FY17. But these plants were not commissioned during the year. Further ***NLC-II-Expansion*** and ***NTECL Vallur plant*** had only a plant availability factor of only **30.925% and 80%** respectively against normative availability factor of 85%. Thus there was shortage of

317.72 MU from that of approved quantum from the above power plants during 2016-17. However, the total availability of power from CGS was more by 471.71 MU than approved because of better plant availability of other central stations. The power purchase cost was **Rs 210.88 Cr** more than the approved for the year 2016-17 as detailed in **Appendix-D6**. Other charges claimed towards central generating stations and PGCIL are included in the power purchase cost of Central generating stations and PGCIL respectively.

4.6.2.2 Power Purchase from Sources within the state: The purchase of power from Independent Power Producers *except RGCCPP and KPCL* is given Table **D-12 below**. The power availability from these resources was 75.19 MU less than approved. Even though solar IPPs such as Kasargod Solar Park and Solar IPP (ANERT) Kuzhalmannam have injected 10.09 MU to the grid, they had not entered PPA during 2016-17. Captive SHP power producers such as Maniyar and Kuthungal had injected power to the grid and the same was adjusted in their consumption during water year. There is a net injection of 8.79 MU when financial year 2016-17 is considered. However, this is considered only for loss calculation purpose. Tariff for all these intra state sources are approved/ adopted by the Hon Commission.

Table-D12 : Power Purchase from Wind and other small IPPs

	KSERC approval		Audited Accounts		Difference	
Station	**Energy (MU)**	**Cost (Rs Cr)**	**Energy (MU)**	**Cost (Rs Cr)**	**Energy (MU)**	**Cost (Rs Cr)**
Wind- Ramakalmedu & Agali	65	20.07	74.96	22.67	9.96	2.6
Wind - Ahalya	0	0	17.37	6.99	17.37	6.99
Ullunkal	19.44	4.74	12.98	3.15	-6.46	-1.59
Iruttukanam Stage-I	18	4.86	13.15		-4.85	
Iruttukanam Stage-II	6	1.62	6.84	5.27	0.84	-1.21
Karikkayam HEP	28	11.65	21.8	9.01	-6.2	-2.64
Meenvallom	5.56	2.71	5.98	2.92	0.42	0.21
Kallar of Idukki District Panchayat	0.13	0.07	0.03	0.02	-0.1	-0.05
Mankulam of Grama Panchayat	0.29	0.14	0.08	0.04	-0.21	-0.1
Solar IPPs			10.09		10.09	
Captive Power plants			8.79		8.79	
Total	142.42	45.87	172.06	50.08	29.64	4.21

4.6.2.3 Power purchase from RGCCPP- Kayamkulam: Honorable Commission vide order dated 17.04.2017 had not approved any schedule from RGCCPP. However, during April 2016, consumption showed an unprecedented rise because of severe summer and social factors contributed by general elections. The day time demand exceeded to 3300 MW to 3400 MW during which the support of hydel machines was not sufficient. The consumption recorded was very high to the tune of 2273 MU. The maximum demand touches 4004 MW on 27.04.2016 and maximum consumption was 80 MU. This along with the deficit due to the reduction in import due to forced outage of CGS and non availability of required power from day ahead market further aggravated the situation. KSEBL was forced to schedule thermal stations within the State such as RGCCPP, KDPP and BDPP in order to avoid load shedding. RGCCPP had to be scheduled for 4 days in April 2016 from 26.04.2016 to 30.04.2016 in order to meet the peak demand without load restriction owing to the deficit due to above mentioned factors.

However, for balance period in that year, KSEBL had supplied energy to the plant at UI rate. This amounts to 8.16 MU. Thus the net energy drawn from RGCCPP was 6.77 MU. This is given in **Table-D13 below.** KSEBL had, thus, scheduled 14.93 MU for a total power purchase cost of Rs 216.52 Cr (including fixed charges of Rs.207.13 Cr). Month wise details of the energy scheduled from RGCCPP- Kayamkulam plant is given in **Appendix – D5.** The actual and proposed month wise energy demand and availability for April & May 2016 is given in **Tables-D13 and D14** below.

Table-D13 : Generation details of RGCCPP				
Date / Particulars	**Peak Demand (MW)**	**Maximum demand (MW)**	**Consumption (MU)**	**RGCCPP schedule (MU)**
26.04.2016	3901	3850	78.2698	1.342
27.04.2016	4004	4004	80.3373	3.492
28.04.2016	3902	3902	80.3838	3.6959
29.04.2016	4000	3922	80.4401	3.5901
30.04.2016	3580	3534	77.5375	2.809
Total Generation				14.93
Less Supplied by KSEBL				8.16
Net energy				6.77

Table-D14 : Shortfall in energy availability in April & May 2016 (MU)								
Month	Demand	Hydro	wind & solar	CGS	Small IPPs	Traders	Total	shortfall
Apr-16	2273.67	565.85	0.23	904.68	16.08	612.98	2099.82	174.48
May-16	2095.85	383.64	0.23	913.31	15.05	657.49	1969.71	126.14

Tabe-D15 :- Energy scheduled from various sources for meeting deficit (Energy in MU)						
Shortfall	**Exchanges**	**DSM**	**SWAP**	**KDPP**	**BDPP**	**RGCCP**
174.48	64.79	63.03	0.31	27.37	4.06	14.93
126.14	57.78	60.73	0.28	7.05	1.09	-0.79

It may be noted that while approving ARR of KSEBL for 2016-17 and 2017-18, Hon Commission had disallowed the fixed charges for RGCCPP and directed KSEBL to approach CERC for lowering the tariff by applying relaxed norms considering the special case of RGCCPP. KSEBL had filed a petition before Hon CERC for a review of the Tariff order. Hon CERC directed KSEBL and NTPC to undertake mutual discussions for settlement of issues and report the outcome. After discussions at various levels NTPC has agreed for a negotiated cost of Rs 200 Cr fixed charge per annum for the tariff period 2014-19. This has already been submitted to Hon Commission. A copy of the Affidavit is attached as **Annexure-D9**.

4.6.2.4 KPCL (Settlement): An amount of Rs 26.59 Cr has been provided in accounts comprises of the balance amount (Rs 13.25 Cr) payable as per settlement deed (15.11.2014) and differential taxes reimbursable for five years from 2006-07 to 2010-11 amounting to Rs 13.34 Cr.

4.6.2.5 Power Purchase from IPPs / Traders outside state from 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 Commission, entered into agreements with various generators/traders outside the state. This is detailed in **Appendix-D1** at the end of this chapter**.** Hon Commission had approved 7302.84 MU for a total amount of 2936.16 Cr from various generators inclusive of power contracted through DBFOO basis against which KSEBL had purchased 7250.91 MU for a total cost of 2951.93 Cr from various contracts. The details are given in table below.

Table-D16 : Power Purchase from generators through various contracts for FY 2016-17

Source	KSERC approval		Actual		Difference	
	Energy* (MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)	Energy* (MU)	Cost (Rs Cr)
Maithon Power Ltd-I	1010.18	374.38	1083.43	387.59	73.25	13.21
Maithon Power Ltd-II	790.40	275.60	763.31	272.98	-27.09	-2.62
DVC Mejia	683.99	278.47	696.13	255.55	12.14	-22.92
DVC RTPS	300.14	129.30	224.16	96.93	-75.98	-32.37
Jindal Power Ltd	1026.49	369.54	1113.32	431.63	86.83	62.09
Jhabua Power Ltd	257.48	106.85	124.10	52.24	-133.38	-54.61
NVVN	2017.03	909.13	2047.82	923.34	30.79	14.21
PTC Balco	661.07	231.67	663.27	268.54	2.20	36.87
PTC Simhapuri	380.74	202.24	381.06	222.28	0.32	20.05
Short Term DVC (PTC) (May '16)	29.30	9.25	28.62	9.25	-0.68	0.00
Short term JPL (PTC) (Mar '17)	146.02	49.73	125.70	45.37	-20.32	-4.36
Subtotal	**7302.84**	**2936.16**	**7250.91**	**2965.69**	**-51.93**	**29.53**

- KSEBL has availed 4004.45 MU for a total amount of Rs 1496.91 Cr through long term contracts against the approved quantum of 4068.68 MU for a total cost of Rs 1534.14 MU.

- There was some **reduction in energy** supplied from the generators **Maithon Power contract II, Jhabua Power and DVC RTPS**. In the case of power contracted from Maithon II, medium term open access was granted for only 122MW for a contracted capacity 150 MW. KSEBL had estimated energy availability corresponding to 150 MW, expecting full corridor, at an availability factor of 85% and auxiliary consumption 6.5%. However, as per clause 9.8.1 of PPA of Maithon II, in the event of medium term open access, the contracted capacity shall be taken as open access capacity granted duly grossed up for auxiliary energy consumption. Hence the reduction in energy availability.

- Similarly, **Jhabua Power** had not supplied power to KSEBL from 1st January 2017 due to outage caused by the High Vibration of Generator. Hence KSEB Ltd., granted consent to Jhabua Power to supply power from alternate source, **Sembcorp Gayatri Power (SGPL**), Andhra Pradesh, on the condition that any financial liability on account of change in source of supply would not be borne by KSEBL. Accordingly, Jhabua Power supplied power from SGPL from 17th February 2017 onwards on STOA basis. Hence **the reduction in energy availability** as compared to the approved quantum.

- KSEBL had availed 2711.08 MU for a total cost of Rs 1191.08 crores through medium term contracts (Case-1 bidding) from traders NVVN and PTC.

- KSEBL had availed 381.06 MU from Simhapuri through PTC for a total amount of Rs 222.28 crores ,28.62 MU from DVC through PTC for a total amount of Rs 9.25 Cr and 125.70 MU from M/s Jindal through PTC for a total amount of Rs 45.37 Cr through short term contracts.

- Thus KSEBL has availed 7250.91 MU from approved firm contracts for a total amount of Rs 2951.93 crores against the approved quantum of 7302.84 MU for a total cost of Rs 2936.16 Cr. The details of purchases through long term, medium term contracts and short term contracts is given as **Appendix D3.**

4.6.2.6 Power purchase through Traders / Exchanges and UI: Hon Commission approved 2399.71 MU from short term market at a total cost of Rs 959.88 Cr. Against this, KSEBL availed 1414.63 MU at a total cost of Rs 384.52 Cr @ Rs 2.72 per unit against the approved rate of Rs 4.33 per unit which is inclusive of power contracted through TPCIL from JITPL which was approved vide order dated 19-12-2016. Honourable Commission has not considered this contract while approving the power purchase. KSEBL procured 484.62 MU from energy exchange for a total amount of Rs. 179.16 crore and 117.31 MU from power exchange for a total amount of Rs. 42.24 crore. Rs.15 crore has been incurred for the purchase of REC certificates in compliance with the direction of Hon Commission as per order dated 30.03.2016 on RP-1 of 2015 (Rs.8.625 crore from IEX and Rs.6.375 crore from PXIL). Out of the 1414.63MU, 740.70 MU was obtained through DSM for Rs.137.61 Cr at Rs. 1.86 per unit. This energy cannot be treated as a firm source of power but only as a means to impose grid discipline. Month wise details of energy procured through DSM are furnished in **Appendix-D2.** Details of trader wise power purchase as well as from exchanges are furnished in **Appendix –D3, and D-4**.

4.6.2.7 Inter-state Transmission charges paid to PGCIL: Honorable Commission vide order dated 17.04.2017 approved Rs 607.54 Cr for 2016-17 and the actual transmission charges during 2016-17 as per audited accounts was Rs 503.62 Cr.

4.6.3 **O&M Expenses:** The actual O&M expenses of the distribution Business Unit was **Rs 2278.59 Cr**. Component wise details are given in the Table-D17 below and detailed in Form D 3.4. Hon Commission had approved only Rs 1326.62 Cr as O&M expenses based on the norms in the Tariff Regulation 2014. It is submitted that, these norms may please be revisited by the Hon Commission based on the Judgement of the Hon High Court of Kerala in WP(C) 465 / 2015 as pleaded in Para 1.5 & 1.6 in introductory Chapter in this petition. Since Master Trust bonds for terminal liabilities has been issued only on 01.04.2017, the terminal liabilities for 2016-17 may be allowed over and above the O&M expenses. Further, an amount of Rs.23.59 Cr incurred for the procurement of LED lamps and accounted under A&G expenses. The corresponding sales proceeds (Rs.45.94 Cr) included under miscellaneous receipts as detailed in chapter 5. Hon Commission may kindly treat this as one time item and net gain of Rs. 22.35 Cr considered in truing up. Component wise details of O&M expenses are as follows:

Table – D17 : Components of O&M Expenses (Rs Cr)						
No	**Particulars**	**Approved**	**Actual**	**Difference**	**Previous year**	**Remarks**
1	Employee Cost	NA	1788.27	NA	1742.82	See Form D3.4 (a)
2	A&G Expenses	NA	300.11	NA	261.15	See Form D3.4 (b)
3	R&M Expenses	NA	190.21	NA	185.82	See Form D3.4 (c)
4	Sub total	1326.62	2278.59		2189.78	
5	Term Benefits		1012.16		927.01	See Form D3.4 (a)
4	**total**	**1326.62**	**3290.75**		**3116.80**	**See Form D 3.4**

4.6.4 **Cost Drivers**: The 2014 tariff regulation takes the following four cost drivers for determination of expenses. The growths of the drivers are given in the Table – D20 below.

Table – D18 : Distribution Cost Drivers									
Item	**FY09**	**FY10**	**FY11**	**FY12**	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**
Consumers	9363461	9743476	10127946	10457637	10806890	11192890	11430895	11668031	11994853
Dist Transf	46359	52149	57954	62329	64972	67546	71199	73460	75579
HT Lines *	41283	44682	48342	51328	52907	53579	57309	59476.66	61398.43
Energy Sales*	12414	13971	14548	15981	16838	17454	18426	19325.07	20038.25
** HT Lines in kms & Energy Sales in MU*									

4.6.5 Depreciation: Hon Commission considered GFA as on 01.04.2014 for KSEBL and approved depreciation for 2016-17 based on Regulations at **Rs. 601.17 Cr**. From this amount, reduced the depreciation attributable to Consumer contribution and grants, of Rs. 186.37 Cr and allocated the resultant depreciation of Rs. 414.80 Cr among SBUs in GFA ratio as on 31.10.2013. **Rs. 58.12 Cr** was approved for SBU D. Actual depreciation for the distribution assets for the year 2016-17 is **Rs.245.51 Cr**. The difference is because of the asset addition in 2014-15 and 2015-16, impact of fully depreciated assets. Depreciation as per IND AS accounts vary with the amount claimed in this petition as detailed in Chapter 5.

4.6.5 Interest and Finance Charges: Hon Commission had approved the interest and finance charges of SBU-D for the year 2016-17 as Rs 981.79 Cr. However, as per the audited accounts, the actual expenses incurred under interest and finance charges were Rs. 853.39 Cr. After considering the actual disbursement of interest on Security deposit, Rs.839.88 Cr is sought to be trued up in this petition. The details are given below.

Table – D19 : Summary of Interest and Finance Charges for 2016-17 (Rs in Cr)				
No	**Particulars**	**Approved**	**Accounts**	**Truing up**
1	Interest on outstanding Loans and Bonds	57.84	313.69	313.69
2	Less: Interest capitalized		48.86	48.86
3	Net interest		264.83	264.83
4	Interest on Security Deposit	120.12	177.27	163.56
5	Interest on GPF	110.44	143.45	143.45
6	Other Interest	8.41	19.10	19.10
7	Master Trust Bond Interest Provision	684.98	0.00	0.00

8	Interest on Overdraft	0.00	248.94	248.94
9	Grand Total (I+II+III+IV+V)	981.79	853.59	839.88

(v) The following factors caused deference between actual figures from approved values: (1) Hon Commission considered the outstanding loan as on 31.03.2016 and Interest @ 11% was approved on this amount. Further, the interest was apportioned among SBUs in the ration of GFA (reduced by consumer contribution) as on 31.10.2013 and approved Rs. 57.84 Cr for SBU D. Thus, Hon Commission had approved just 14.01% of total loans as on 31.03.2016 amounting to Rs.525.81 Cr was assigned to SBU D whereas functional loans at the beginning of the year as per accounts were Rs.1819.12 Cr. (2). However as per the methodology adopted by KSEBL, which is detailed in chapter 5, for segregation of Loans and interest, the loan Interest is Rs. 313.69 Cr (2) The Master Trust Bond could not be issued in FY2016-17 and the corresponding interest of Rs 684.98 Cr has not been incurred that year. (3) Other interest and interest on PF has been assigned entirely to SBU-D as per accounts. Hon Commission may please note that the interest on loans as per account is net of capitalised portion of interest applicable to capital works in progress.

(vi) Capital works amounting to Rs. 822.42 Cr were executed during the year. Details are given in Chapter 5.

(vii) Hon Commission may kindly note that KSEBL is consistently capitalizing interest and other charges attributable to capital works in progress and such amount is not claimed as expenditure in the ARR or Truing up petitions. Thus, Regulation 25 of KSERC (Terms and Conditions of Tariff) Regulation 2014, which stipulates that interest during construction would be considered under capital cost and would not be allowed under interest and finance charges, which is fully complied with by KSEBL.

(viii) During 2016-17, SBU D had capitalized Rs.48.86 Cr from interest on loans (out of total interest on loans Rs.313.69 Cr) in true spirit of the regulation which stipulates that interest during construction would form part of the capital value of the assets created. In addition, employee cost and A&G expenses were also capitalized to the extent of Rs.130.33 crore and Rs.6.66 Cr respectively.

The details of capital works carried out during 2016-17 is as follows.

Table - D20 : Details of Capital Works during 2016-17

Particulars	Achievement
No of consumers (Nos)	462,237
HT Line construction (km)	1,844
LT Line construction (km)	5,357
Transformer installation (Nos)	2,270
Line conversion (km)	2,283
HT re-conductoring (conductor km)	888
LT re-conductoring (conductor km)	14,137
Faulty meter replacement (Nos)	469,285

4.6.6 Interest on security deposit as per accounts was Rs.177.27 Cr but actual disbursement in 2016-17 amounted to Rs.163.56 Cr. Hence the claim is restricted to the actual disbursement during the year. Details are furnished in chapter 5.

4.6.7 **Return on Equity:** Return on equity @14% on the allocated equity for the Distribution SBU as per the Hon Commission order dated 17-Apr-2017, amounting to Rs. 68.64 Cr as detailed in **Form D3.8.**

4.6.8 Other debits and Prior period expenses/income: Other expenses for the year have been Rs.91.21 Cr. During the year there has been prior period income (net) amounting to Rs. 121.58 Cr under prior period transactions. Further as per IND AS, there has been an income of Rs. 30.98 towards changes in FV and adjustments. Hence, net income under this head works out to Rs.61.35 Cr. Other debits include Material cost Variance, R&D Expenses, Bad Debts and Misc Losses Written-off. Material cost variance represents the difference between actual rate at which material was procured and standard rate at which materials are issued. Bad and doubtful debts written off/ provided for represent withdrawal of credits to revenue in earlier years. The miscellaneous losses and write off represent the compensation paid to staff and outsiders for injuries, death and danger. Prior period charges include both income as well as expenses relating to earlier years. These three items are described in detail in chapter 5.

4.6.9 **Non tariff income:** SBU D was able to collect **Rs. 525.15 Cr** under non tariff income as detailed under **Form D.** This include Meter Rent/Service Line Rental, Miscellaneous charges (UCM, Service connection fee, Fee for maintenance of Public lighting, Testing fee, Reconnection fee, Penalty charges, Minimum Guarantee charges, Charges for Service connection minimum, Meter Box charges, Power allocation charges, Wheeling charges & Reactive energy charges , Interest on Staff Loans and Advances, Interest on Advances to suppliers/ **Contractors**, Interest from Banks, Rebate Received, Income from sale of scrap, RE Charges etc). Hon Commission may kindly note that the claw back depreciation amounting to Rs.45.33 Cr was inadvertently credited to non tariff income, which may kindly be excluded while truing up the accounts. Actual Non tariff income (as per accounts net of claw back) amounting to Rs.479.82 Cr may only be considered as non tariff income since the claw back depreciation has been deducted from the amount claimed under depreciation for the year.

4.6.10 **Tariff income:** The actual energy sale within the State during 2016-17 was 20038.25 MU. Revenue from tariff during the year 2016-17 has been Rs. 11023.60 Cr as disclosed in **Form D 2.1**. A summary of the Tariff from Sale of power is given below.

Table – D21 : Revenue from Sale of Power within the State

No	Category	Energy sales		Revenue	
		MU	%	Rs Cr	%
1	Domestic	10280.74	51.31	3953.34	35.86
2	Industrial	1131.91	5.65	754.72	6.85
3	Agriculture	321.98	1.61	102.01	0.93
4	Commercial	2957.95	14.76	2709.04	24.57
5	Public Lighting	375.77	1.88	156.64	1.42

6	HT &EHT Total	4128.21	20.60	2854.083	25.89
7	Railway Traction	229.59	1.15	130.52	1.18
8	Bulk Supply	612.10	3.05	363.25	3.30
9	**Total sales (within state)**	**20038.25**	100.00	**11023.60**	100.00
10	Interstate sale	49.30		12.27	
11	Misc			0.91	
12	Total	20087.55		11036.78	

The revenue from sale of Power includes fixed charges/demand charges, energy charges which is inclusive of the subsidy allowed by the Government in the case of domestic consumers with monthly consumption up to 120 units and LT Agricultural consumers. It can be seen that 51.31%of total consumption was domestic which contribute 35.86 %of revenue. A comparison of approved vs actual is given in table below.

Table – D22 : Revenue comparison Approved Vs Actuals

No	Category	Energy sales (MU)		Revenue (Rs. Cr)	
		Approved	Actual	Approved	Actual
1	Domestic	10656.32	10280.74	4009.93	3953.34
2	Industrial	1109.91	1131.91	661.50	754.72
3	Agriculture	283.41	321.98	67.73	102.01
4	Commercial	3030.24	2957.95	2513.67	2709.04
5	Public Lighting	378.45	375.77	141.92	156.64
	HT Total	3299.37	3301.83	2442.15	2361.385
6	EHT Total	1026.55	826.38	580	492.70
7	Railway Traction	232.06	229.59	133.43	130.52
8	Bulk Supply	609.39	612.10	350.39	363.25
9	**Total sales (within state)**	**20625.7**	**20038.25**	**10900.72**	**11023.60**
10	Interstate sale		49.30		12.27
11	Misc				0.91
12	Total	20625.7	20087.55	10900.72	11036.78

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.

APPENDICES

Appendix -D1 : Details of contracts for procuring power during 2016-17					
Source	**Contracted Capacity (MW)**	**Open access received (MW)**	**Commission Approval Letter**	**Period of contract**	**Approved Tariff**
Long Term contracts					
Maithon Power	150	140.25	No.2158/C.Engg/Maithon/2013/1398 dated 26.12.2013	25 years	CERC Tariff
Maithon Power	150	122 MW from June-16 ; 150 MW from Dec-16	Order dated 08 - 07- 2015	25 years	CERC Tariff
DVC Mejia	100	94.75	No.500/C.Engg/DVC/2014/348 dated 28.03.2014 & Order dated 21.01.2016	25 years	CERC Tariff
DVC RTPS	50	46.75		25 years	CERC Tariff
Jindal (DBFOO)	200	165 MW from June and 200 MW from Dec-16	Order dated 30.8.2016	25 years	Rs 3.6/unit
Jhabua (DBFOO)	115	From December 2016 onwards	Order dated 22.12.2016	25 years	Rs 4.15/unit
Medium Term Contracts					
PTC BALCO (Case I bid)	100	100	No.828/C.Engg/Case.1/KSERC/2013/594 dated 24.05.2013	March-2014 to Feb 2017	Rs 4.45/unit
NVVN (Case I bid)	300	297		March-2014 to Feb 2017	Rs 4.49/unit
Short term contracts					
PTC Simhapuri (upto May 2016)	300	300	Letter No.2023/ C.Engg/ POP/ 2014/ 1296 dated 05.12.2014	June 2015 to May 2016	Rs 5.18 per unit @SR periphery & 5.416 per unit @ Kerala periphery
DVC through PTC	100	100	Order dated 23-05-2016	May-16	Rate at delivery point: 22.30 to 00.00 hours:- Rs 3.21 /unit; 05.00 to 18.30 hours:-Rs 3.14 /unit ; 18.30 to 22.30 hours:-Rs 3.40 /unit
Jindal Power through PTC	200	200	Order dated 1-06-2016	March-17 to June 2017	Rs.3.406/kWh at Kerala periphery
JITPL through TPTCL	100 MW RTC + 100 MW peak	100	Order dated 19-12-2016	March 2017 to May 2017	RTC Power:- Rs 3.25 /unit Peak Power:- Rs 3.65 / unit

Appendix – D2 : Power transfer thru Deviation Settlement Mechanism			
Month	**Net Energy (MU)**	**Amount (Rs Cr)**	**Unit Cost (Rs/unit)**
Apr-16	63.03	12.07	**1.92**
May-16	60.73	8.77	**1.44**
Jun-16	49.81	6.78	**1.36**
Jul-16	43.06	6.75	**1.57**
Aug-16	31.02	3.93	**1.27**
Sep-16	34.41	5.97	**1.74**
Oct-16	73.60	13.86	**1.88**
Nov-16	89.97	18.66	**2.07**
Dec-16	86.52	18.65	**2.16**
Jan-17	80.31	14.59	**1.82**
Feb-17	62.68	13.40	**2.14**
Mar-17	65.58	14.17	**2.16**
Total	**740.70**	**137.61**	**1.86**

Appendix – D3 : Power Purchase from generators through various contracts for FY 2016-17						
Source	**KSERC approval**		**Actuals**		**Difference**	
	Energy* (MU)	**Cost (Rs Cr)**	**Energy* (MU)**	**Cost (Rs Cr)**	**Energy* (MU)**	**Cost (Rs Cr)**
Long Term Contracts						
Maithon Power Ltd	1010.18	374.38	1083.43	387.59	73.25	13.21
Maithon Power Ltd	790.40	275.60	763.31	272.98	-27.09	-2.32
DVC Mejia	683.99	278.47	696.13	255.55	12.14	-22.92
DVC RTPS	300.14	129.30	224.16	96.93	-75.98	-32.37
Jindal Power LTd	1026.49	369.54	1113.32	431.63	86.83	62.09
Jhabua Power LTd	257.48	106.85	124.10	52.24	-133.38	-54.61
Sub Total	**4068.68**	**1534.14**	**4004.45**	**1496.92**	**-64.23**	**-37.23**
Medium Term contracts						
NVVN	2017.03	909.13	2047.82	923.34	30.79	14.21
PTC BALCO						
cost of power purchase during 2016-17	661.07	231.67	663.27	257.10	2.20	25.43
Amount towards previous year bills during 2016-17				11.44		11.44
Sub Total PTC BALCO	661.07	231.67	663.27	268.54	2.20	36.86
Subtotal Medium term contracts	**2678.10**	**1140.80**	**2711.08**	**1191.88**	**32.98**	**51.07**
Short term contracts						
PTC SIMHAPURI						
cost of power purchase during 2016-17	380.74	202.24	381.06	204.64	0.32	2.40
Amount towards previous year bills during 2016-17				17.65	0.00	17.65
Sub Total PTC Simhapuri	380.74	202.24	381.06	222.28	0.32	20.05
Short term Contracts						
DVC through M/s PTC	29.30	9.25	28.62	9.25	-0.68	0.00
Jindal Power Ltd through M/s PTC	146.02	49.73	125.70	45.37	-20.32	-4.36
JITPL thru M/s TPCIL			65.32	25.30		
Power purchase from IEX			484.62	179.16		
Power purchase from PXIL			117.31	42.24		
Deviation settlement mechanism			740.70	137.61		
Power thru swap arrangement	2399.71	959.88	6.68	0.21	-985.08	-575.36
Subtotal	**2955.77**	**1221.10**	**1950.01**	**661.42**	**-1005.76**	**-559.67**
Total	9702.55	3896.04	8665.54	3350.21	-1037.01	-545.83
**** Units purchased at Kerala periphery.*** ***Note: Except Maithon &DVC all rates are inclusive of transmission charges***						

Appendix – D4 : Actual Rate of Power from external IPPs, traders and energy exchanges			
Name of IPP/trader	**Energy (MU)**	**Cost (Rs Cr)**	**Rate (Rs/unit)**
Maithon Power Ltd	1083.43	387.59	3.58
Maithon Power Ltd	763.31	272.98	3.58
DVC Mejia	696.13	255.55	3.59
DVC RTPS	224.16	96.93	4.32
Jindal Power Ltd	1113.32	431.63	3.88
Jhabua Power Ltd	124.1	52.24	4.21
NVVN	2,047.82	923.34	4.47
PTC BALCO			
cost of power purchase during 2016-17	663.27	257.1	3.88
Amount towards previous year bills paid		11.44	
Sub Total PTC BALCO	663.27	268.54	4.05
PTC SIMHAPURI			
cost of power purchase during 2016-17	381.06	204.64	5.37
Amount towards previous year bills paid		17.65	
Sub Total PTC Simhapuri	381.06	222.28	5.83
DVC thru PTC	28.62	9.25	3.23
Jindal Power Ltd thru PTC	125.7	45.37	3.61
JITPL thru TPCIL	65.32	25.3	3.87
Power purchase from IEX	484.62	170.535	3.7
Renewable Energy Certificates via IEX		8.625	1.5
Power purchase from PXIL	117.31	35.865	3.6
Renewable Energy Certificates via PXIL		6.375	1.5
Deviation settlement mechanism	740.7	137.61	1.86
Power thru swap arrangement	6.68	0.21	
Total	**8665.54**	**3350.21**	**3.87**
Note: Except Maithon &DVC all rates are inclusive of transmission charges			

Appendix – D5: Power purchase from RGGCPP for FY 2016-17 (Rs Cr)					
Month	Net Energy (MU)	Fixed cost (Rs Cr)	**Total variable Cost (Rs Cr)**	Unit Variable Cost (Rs)	Total cost (Rs Cr)
Apr-16	14.30	17.26	10.92	7.63	28.18
May-16	-0.79	17.26	0.00		17.26
Jun-16	-0.65	17.26	0		17.26
Jul-16	-0.63	17.26	0		17.26
Aug-16	-0.68	17.26	0		17.26
Sep-16	-0.71	17.26	0		17.26
Oct-16	-0.72	17.26	0		17.26
Nov-16	-0.65	17.26	0		17.26
Dec-16	-0.66	17.26	0		17.26
Jan-17	-0.72	17.26	0		17.26
Feb-17	-0.63	17.26	0		17.26
Mar-17	-0.70	17.26	0		17.26
Total	14.30	207.13	10.92	7.63	218.04
KSEBL supply	8.16				
Supplementary claims & provisions					-1.53
Grand total					216.52

Appendix – D6 : Source wise details of Power Purchase for 2016-17					
No	**Source**	**Approved Energy (MU)**	**Approved Cost (Rs Cr)**	**Actual Energy (MU)**	**Actual Cost (Rs Cr)**
1	**CENTRAL GENERATING STATIONS**				
	Talcher	2874.29	672.70	3065.45	810.65
	NLC Exp Stage I	423.13	157.57	468.63	195.93
	NLC II Stage I	363.07	113.67	465.24	215.99
	NLC II Stage II	518.77	163.08	609.87	283.66
	RSTPS I & II & III	1655.64	549.51	1825.03	546.98
	RSTPS III	416.46	155.32	441.44	140.97
	Maps	122.49	26.79	137.75	33.94
	Kaiga Stage I & II	421.06	136.51	476.02	158.51
	Simhadri Exp	617.50	277.91	669.47	286.73
	Kudamkulam	1009.38	420.21	1060.33	362.09
	NLC II exp	401.40	182.80	190.15	104.56
	NTECL Vallur JV	341.93	132.28	311.57	139.86
	NTPL Tuticorin	492.86	183.17	484.84	209.24
	Kudgi Unit I	18.67	8.03	0.00	0.00
	Bhavini	57.44	23.79	0.00	0.00
	Jhajjar	0.00	0.00	0.00	38.90
	Less: Credit notes received				-114.66
	Sub Total	**9734.09**	**3203.32**	**10205.79**	**3413.34**
2	**INDEPENDENT POWER PRODUCERS**				
	RGCCPP, Kayamkulam	0	0	6.77	216.52
	BSES	0	0	0	-8.95
	KPCL	0	0	0	26.59
	Wind- Ramakalmedu & Agali	65	20.07	74.96	22.67
	Wind Ahalya	0	0	17.37	6.99
	Ullunkal	19.44	4.74	12.98	3.15
	Iruttukanam Stage-I	24	6.48	19.98	5.27
	Karikkayam HEP	28	11.65	21.8	9.01
	Meenvallom	5.56	2.71	5.98	2.92
	Kallar of Idukki District Panchayat	0.13	0.07	0.03	0.02
	Mankulam of Grama Panchayat	0.29	0.14	0.08	0.04
	Subtotal IPPs	142.42	45.86	159.95	284.24
	CPP Energy injection for banking			8.79	
	Solar IPPs			10.09	
	Sub total	**142.42**	**45.87**	**178.83**	**284.24**
	Continued…				

No	Source	Approved Energy (MU)	Approved Cost (Rs Cr)	Actual Energy (MU)	Actual Cost (Rs Cr)
	….Continued				
3	**TRADERS**				
(a)	**Long term contracts**				
	Maithon Power Ltd	1010.18	374.38	1083.43	387.59
	Maithon Power Ltd	790.40	275.60	763.31	272.98
	DVC Mejia	683.99	278.47	696.13	255.55
	DVC RTPS	300.14	129.30	224.16	96.93
	Jindal Power LTd	1026.49	369.54	1113.32	431.63
	Jhabua Power LTd	257.48	106.85	124.10	52.24
	Sub total	**4068.68**	**1534.14**	**4004.45**	**1496.91**
(b)	**Medium Term contracts**				
	NVVN	2017.03	909.13	2047.82	923.34
	PTC BALCO	661.07	231.67	663.27	257.10
	PTC BALCO- previous bills				11.44
	Subtotal medium term contracts	**2678.10**	**1140.80**	**2711.08**	**1191.88**
(c)	**Short term contracts**				
	PTC SIMHAPURI	380.74	202.24	381.06	222.28
	M/s DVC thru M/s PTC	29.30	9.25	28.62	9.25
	M/s Jindal Power Ltd thru M/s PTC	146.02	49.73	125.70	45.37
	M/s JITPL through M/s TPCIL			65.32	25.30
	Power purchase from IEX			484.62	179.16
	Power purchase from PXIL			117.31	42.24
	Power transfer thru DSM			740.70	137.61
	Power availed thru swap arrangement	2399.71	959.88	6.68	0.21
	Subtotal short term contracts	**2955.77**	**1221.10**	**1950.01**	**661.42**
4	Transmission charges payable to PGCIL	0.00	607.54		503.62
	Total	**19579.06**	**7752.77**	**19050.17**	**7551.22**

* Actual Energy Purchased at KSEB Bus. Note: Except Maithon &DVC&CGS all rates are inclusive of transmission charges

Appendix D7 – Month wise Power Availability for 2016-17 in MW													
Particulars	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average
Base load availability													
Hydro	640	571	448	395	194	277	172	272	198	78	218	631	341
CGS	1230	1220	1150	1060	1110	1130	1100	1030	1140	1200	1300	1300	1164
LTA+MTOA + STOA confirmed	900	900	924	924	917	798	920	920	920	1031	1059	967	932
Total (A)	2770	2691	2522	2379	2221	2205	2192	2222	2258	2309	2577	2898	2437
*Base load(B)	2700	2600	2000	2030	2200	2150	2150	2150	2200	2250	2500	2825	2313
% Base load availability (A/B)	102.59	103.50	126.10	117.19	100.95	102.56	101.95	103.35	102.64	102.62	103.08	102.58	105.36
Peak load availability													
Hydro	1464	1518	1521	1422	1459	1557	1512	1479	1399	1239	1249	1657	1456
KDPP	65	120	0	0	0	0	0	0	0	0	0	0	15
CGS	1230	1220	1150	1060	1100	1130	1100	1030	1140	1200	1300	1300	1163
MTOA + LTA	900	900	924	924	917	798	920	920	920	1031	1059	1067	940
Total (A)	3659	3758	3595	3406	3476	3485	3532	3429	3459	3470	3608	4024	3575
Peak Load(B)	3900	4100	3650	3500	3550	3700	3600	3700	3700	3700	3900	4200	3767
% Peak load availability * (A/B)	93.82	91.66	98.49	97.31	97.92	94.19	98.11	92.68	93.49	93.78	92.51	95.81	94.91
Gross Availability													
Gross availability ** (%)	100.40	100.54	119.20	112.22	100.19	100.47	100.99	100.68	100.35	100.41	100.44	100.89	102.75

*The shortfall in availability to meet the peak load was met from short term market/power exchanges/DSM.
**Base load availability x 0.75 + Peak load availability X 0.25 (%)

APPENDIX –D8 : Affidavit submitted on RGCCPP contract

KERALA STATE ELECTRICITY BOARD LIMITED

(Incorporated under the Indian Companies Act, 1956)

Tariff &Regulatory Affairs Cell

Cabin No. 924, Vydyuthi Bhavanam Pattom Thiruvananthapuram 695 004 India

Phone (O) +91 471 2514317, 2514617, 2514319,

Fax: +91 471 2448213 E-mail: trac@ksebnet.com www.kseb.in

KSEB/TRAC/CERC/RGCCPP/2018-19/4809 Date. 12-6-2018

To

The Secretary
Kerala State Electricity Regulatory Commission,
KPFC Bhavanam, Vellayambalam
Trivandrum.

Sir,

Sub: Annual Fixed Charges of RGCCPP,Kayamkulam – reg.

Ref: Order dated 27-4-2017 of Hon'ble Commission

Kind attention of the Hon'ble Commission is invited to the order dated 27-4-2017 in the matter of Annual Fixed Cost of Rajiv Gandhi Combined Cycle Power Project,Kayamkulam.

KSEBL's submission in compliance with the direction in the above order is enclosed for kind consideration of the Hon'ble Commission.

Yours faithfully,

Sd/
Deputy Chief Engineer (Commercial & Planning)
With full powers of Chief Engineer

Acc: Submission

BEFORE THE HON'BLE KERALA STATE ELECTRICITY REGULATORY COMMISSION

In the Matter of : **Submission of KSEBL on Annual Fixed Charges of Rajiv Gandhi Combined Cycle Power Project, Kayamkulam in compliance with the order of Hon'ble KSERC vide order dated 27-4-2017.**

KSEBL MOST HUMBLY SUBMITS THE FOLLOWING:

I am directed by Board to submit the following matter in respect of the Annual Fixed Charges payable for RGCCPP, Kayamkulam ordered by Hon'ble Commission vide order dated 27-4-2017.

1. KSEBL had executed Power Purchase Agreement (PPA) with NTPC for purchase of power from Rajiv Gandhi Combined Cycle Power Project of capacity 359.58 MW on 6-1-1995. The original PPA was for a period of 5 years which was subsequently extended over different periods and now stands extended for 12 more years from 1-3-2013.

2. The tariff of RGCCPP is determined as per the norms issued by Central Electricity Regulatory Commission (CERC) which are issued for 5 year tariff control periods. The norms of CERC are derived for plants in continuous operation and accordingly the working capital is allowed considering the normative plant operation at 85%.

3. CERC, in October 2016, enhanced the fixed cost of the plant for the period 2014-19 to around Rs.300Cr. The increase was around 34% compared to the previous tariff period 2009-14. Since the above revision of Annual Fixed Charges(AFC) came much later, the billing for the period from 2014-15 onwards was done at the pre-revised AFC rate for 2013-14. The pre-revised AFC approved was Rs.221.12 Cr. However, NTPC themselves revised their claim for 2014-15 to Rs.207.13 Cr by applying Minimum Alternate Tax(20.38%) instead of Corporate Tax(33%) on Return on Equity. The high increase in Fixed Charges was caused by huge increase in working capital allowed on normative basis (CERC norms) which is higher than actual fuel cost and normal pattern of operation.

4. However, KSEBL had not been admitting the increased claim of NTPC and was paying only the pre-revised rate of Rs.207.13 Cr, because there was no scheduling of power due to high cost.

5. Hon'ble Commission vide order under ref(4), has declined to pass through the exorbitant fixed cost amounting to Rs.300 Cr and ordered as follows:

   (1) The request of KSEB Ltd to approve payment of fixed charges as assessed by the Hon'ble CERC is declined.
   (2) KSEB Ltd is directed to negotiate with NTPC Ltd and to work out minimum fixed charges payable for RGCCPP.
   (3) KSEB Ltd is directed to obtain 360 MW of cheaper power to bring the cost of power to the range of Rs.2.50 to Rs.2.92 per unit.

(4) If the recommendations for minimizing the fixed cost of RGCCPP and for allotting 360 MW of cheaper power are not acceptable to NTPC Ltd, the scope for taking over the plant by paying its depreciated value shall be explored and reported.

6. Further, while approving the ARR of KSEBL for the years 2016-17 and 2017-18, Hon'ble Commission disallowed the same and directed KSEBL to approach CERC for lowering the tariff by applying relaxed norms considering the special case of RGCCPP.

7. As directed by Hon'ble Commission, KSEBL filed a petition(Petition No.143/MP/2017) before Hon'ble CERC for review of the tariff order dated 27.10.2016. Hon'ble CERC during the hearing of the petition expressed concern that any relaxation of norms allowed to RGCCPP may become a precedence for other stranded plants and therefore directed KSEBL and NTPC to undertake mutual discussions for settlement of the issues and report the outcome. A copy of the Record of Proceedings is enclosed as **Annexure**-**1**.

8. As per the direction of Hon'ble CERC, four rounds of meetings were held with NTPC. The first meeting between KSEBL and NTPC was conducted on 26-10-2017. NTPC was not agreeable for reduction in AFC from that approved by CERC for the first three years of the tariff period 2014-19 (i.e. 2014-15, 2015-16 and 2016-17) but proposed an AFC of Rs.227 Cr for FY 2017-18 and Rs.231 Cr for FY 2018-19 were proposed (as against CERC approved amount of Rs.296.69 Cr and Rs.301.17 Cr for 2017-18 and 2018-19 respectively). Arrears till March 2017 from April 2014(around Rs.275 Cr) had to be settled upfront.

9. Since this offer of NTPC was not acceptable, KSEBL approached **(Annexure-2**) GoK for negotiations at top level of NTPC by GoK. Government consulted Ministry of Power/GoI and accordingly, next round of meeting was held among GoK, KSEBL and NTPC on 13-12-2017 at the level of Secretary to Government of India, Ministry of Power which was attended by Additional Chief Secretary, GoK and CMD,KSEBL. In this meeting also, NTPC reaffirmed their earlier stand. A copy of the minutes of this meeting is enclosed as **Annexure-3**.

10. In view of the adamant position taken by NTPC, the Board of Directors of KSEBL on 14-12-2017 decided to obtain the concurrence of GoK for initiating the process of reviewing the PPA by invoking the review option therein. KSEBL vide letter dtd. 31-1-2018 (**Annexure-4**) sought the approval of GoK for initiating the review process. GoK vide letter dated 27-2-2018 (**Annexure-5**) approving in principle the review, intimated CMD,NTPC about the same.

11. Subsequently, CMD, KSEBL also wrote to CMD, NTPC (**Annexure-6**) that Board has decided to review the PPA as envisaged in the Supplementary PPA, in view of the present cost economics of RGCCPP. It was also informed that the plant need not be scheduled beyond 1-3-2018 and any claims for subsequent period would be considered only based on the outcome of the review process. It was also intimated that KSEBL is open to any financially viable proposal from NTPC that can reduce the applicable charges as part of review process.

12. In response, NTPC officials came for another round of discussion on 6-3-2018, wherein, KSEBL had proposed tariff based on the parameters indicated in the order of Hon'ble Commission dated 27-4-2017 and in response, NTPC, made the following offer:

   i. NTPC intimated that 180MW power is allocated to pool with RGCCPP and the cost of pooled power is only in the range of Rs.4-5/unit.

ii. RGCCPP is a dedicated plant to Kerala and PPA is valid upto 2025 and hence KSEBL should not terminate the PPA.
iii. Separate norms cannot be granted for RGCCPP, since it will become a precedence for other stressed assets.
iv. NTPC offered the pre-revised AFC of Rs.207 Cr for each of the year of the current tariff period 2014-15 to 2018-19.

v. It was also offered that NTPC and KSEBL can jointly approach CERC for separate relaxed norms for naptha based stations for the next control period.

13. KSEBL felt that the offer of NTPC could be brought down further down through intervention by Government of Kerala and accordingly, KSEBL, again approached GoK (**Annexure-7**) for necessary intervention.

14. Principal Secretary, GoK informed (**Annexure-8**) that as per the discussions carried out by GoK with CMD, NTPC, the Annual Fixed Cost payable by KSEBL to NTPC for RGCCPP, Kayamkulam has been negotiated and fixed as Rs.200 Crore (Rupees Two Hundred Crore) per annum for the control period 2014-19 with the liberty of review in 2018-19. It has also been informed that NTPC has consented to provide the difference of the amount now fixed (Rs.200Cr) and that which was being paid (Rs.207.13 Cr) amounting to Rs.7.13 Cr directly in the adjustment of the current year payment or reimburse the amount by way of CSR funding to KSEBL. It is also directed that KSEBL may take necessary steps to get the excess amount paid to NTPC in previous years reimbursed rather than taking CSR funding. A copy of the letter from GoK is enclosed.

15. As per the negotiated cost, the AFC payable by KSEBL for RGCCPP for the tariff period from 2014-15 to 2018-19 is Rs.200Cr (Rupees Two Hundred Crores).

16. It is submitted that at an AFC of Rs.200Cr, now agreed upon by NTPC, and considering the 180MW of power from Talcher Station, KSEBL is in effect getting the effective pooled tariff of RGCCCPP power at around Rs.4.18/unit.

17. Considering all the efforts made by KSEBL to bring down the AFC of RGCCPP to Rs.200Cr and also considering the fact that the PPA of RGCCPP is required for meeting power contingencies and also considering the fact that 180MW of cheaper power is allocated to KSEBL to pool with RGCCCPP power, KSEBL humbly request Hon'ble Commission to kindly approve an amount of Rs.200Cr as AFC of RGCCPP for the period from 2014-15 to 2018-19, in view of the direction received from Government of Kerala.

Sd/
Deputy Chief Engineer (Commercial & Planning)
With full powers of Chief Engineer

Acc: 1. RoP of CERC
2. KSEBL letter dtd. 20-11-2017
3. Minutes of the meeting dtd. 13-12-2017
4. KSEBL letter dtd. 31-1-2018
5. Letter dtd. 27-2-2018 of GoK
6. KSEBL letter dtd. 27-2-2018
7. KSEBL letter dtd. 8-3-2018
8. Letter dtd. 10-5-2018 of GoK.

-------- End of Appendices -----

TRUING UP FORMATS FOR KSEBL SBU – DISTRIBUTION FOR 2016-17

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT - DISTRIBUTION Form D 1.1 : Summary of Aggregate Revenue Requirement (2016-17)							
No.	**Particulars**	**Ref form**	**Approved**	**Actual**	**Normative**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	Cost of own generation/power purchase	3.1	8425.37	8246.64	NA		
2	Transmission Charges	3.2	881.30	991.11	NA		
3	NLDC/RLDC/SLDC Charges	3.3			NA		
4	Operation & Maintenance Expenses	3.4	1326.62	2278.59	NA		
4.1	Employee Expenses	3.4	1038.24	1788.27	NA		
4.2	Annual Contribution for Terminal Liabilities				NA		
4.3	Administration & General Expenses	3.4	92.94	300.11	NA		
4.4	Repair & Maintenance Expenses	3.4	195.44	190.21	NA		
5	Depreciation	3.5	58.12	245.51	NA		
6	Interest and finance charges on LT loans	3.6	57.84	264.83	NA		
7	Interest on Bonds to meet Terminal Liabilities	3.6	684.98	0.00	NA		
8	Interest on Working Capital	3.7		248.94	NA		
9	Interest on consumer security deposits Etc		120.12	163.56	NA		
10	Interest on GPF		110.44	143.45	NA		
11	Other Interest		8.41	19.10	NA		
12	Any other item - Other Debits			91.21	NA		
13	Prior Period Expenses			-121.58	NA		
14	Change in Fare Value - Adjustments			-30.98	NA		
15	Terminal benefits			1012.16	NA		
16	**Total Revenue Expenditure**		**11673.20**	**13552.54**	NA		
17	Return on Equity	3.8	68.64	68.64	NA		
18	Tax on ROE	3.9		0.00	NA		
18	**Aggregate Revenue Requirement (15+16)**		11741.84	13621.18	NA		
23	Less: Non Tariff Income	2.4	441.00	479.82	NA		
24	**NET ARR**		11300.84	13141.36	NA		
All Amounts in Rs Cr							

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT - DISTRIBUTION

Form D 2.1 : Revenue from Sale of Power (2016-17)

No	Particulars	Number of consumers	Units Sold (MU)	% of total Unit sold	Demand/ fixed charges@	Energy Charges @	Fuel Adjustment charges@	Total	Other charges if any@	DPS /LPS @	Sub-total	Other Rentals	Misc. recoveries@	Sub-total	Avg. realisation per KWh (Excluding ED &	Remarks
1	2	3	6	7	8	9	10	11	18	19	20	21	22	23	24	25
	LT Categories															
1	**Domestic**	9384957	10280.74	51.18	242.60	3710.66	0.05	**3953.32**	0.02		**0.02**			**3953.34**		
2	Commercial	1994916	2957.95	14.73	442.22	2266.63	0.13	**2708.98**	0.06		**0.06**			**2709.04**		
3	Public Lighting	20350	375.77	1.87	0.60	156.01	0.03	**156.64**			**0.00**			**156.64**		
4	Irrigation	447551	321.98	1.60	13.32	88.69	0.00	**102.01**	0.00		**0.00**			**102.01**		
5	Industrial LT	141683	1131.91	5.63	137.09	617.66	0.01	**754.76**	-0.04		**-0.04**			**754.72**		
6	Miscellaneous					0.91		**0.91**			**0.00**			**0.91**		
7	**HT Categories**	5293	3301.83	16.44	421.75	1939.61		**2361.36**	0.02		**0.02**			**2361.38**		
8	**EHT Categories**	42	826.38	4.11	94.23	398.47		**492.70**			**0.00**			**492.70**		
9	**Railway Traction**	12	229.59	1.14	22.72	107.80		**130.52**			**0.00**			**130.52**		
10	**Bulk Cons Etc**	12	612.10	3.05	47.98	315.28		**363.25**			**0.00**			**363.25**		
	External Sales															
11	Power Exch sales		49.30	0.25		12.27		**12.27**			**0.00**			**12.27**		
	Total	11994816	20087.55		**1422.50**	**9613.99**	**0.23**	**11036.72**	**0.06**		**0.06**			**11036.78**		

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT - DISTRIBUTION							
Form D 2.3 : Income from sale of surplus power (2016-17)							
Month	**Name of buyer**	**Transaction No.**	**Nature of Sales**	**Trade Volume (MU)**	**Trade Volume (MW)**	**Sale Price (Rs/Unit)**	**Income (Rs Cr)**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
April - 2016	...	...	Through Exchange	0.06912	...	...	0.01
May -2016	...	...	Through Exchange	0	...	...	0
June -2016	...	...	Through Exchange	9.47456	...	...	2.25
July -2016	...	...	Through Exchange	37.1202	...	...	9.47
August -2016	...	...	Through Exchange	2.63932	...	...	0.54
September -2016	...	...	Through Exchange	0	...	...	0
October -2016	...	...	Through Exchange	0	...	...	0
November -2016	...	...	Through Exchange	0	...	...	0
December -2016	...	...	Through Exchange	0	...	...	0
January -2017	...	...	Through Exchange	0	...	...	0
February -2017	...	...	Through Exchange	0	...	...	0
March -2017	...	...	Through Exchange	0	...	...	0
Total	...	...	...	49.30	...	...	**12.27**

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT - DISTRIBUTION					
Form D 2.4 : Non-tariff Income (2016-17)					
No.	**Particulars**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
1	Interest on staff loans and advances		0.20	0.20	
2	Income from statutory investments		0.24	0.24	
3	Income from trading		0.01	0.01	
4	Income from rent of land or buildings		5.21	5.21	
5	Income from sale of scrap		24.28	24.28	
6	Income from staff welfare activities		0.00	0.00	
7	Rental from staff quarters		0.17	0.17	
8	Excess found on physical verification		0.15	0.15	
9	Interest on investments, fixed and call deposits and bank balances		7.14	7.14	
10	Interest on advances to suppliers/contractors		0.42	0.42	
11	Income from hire charges from contractors and others		0.01	0.01	
12	Income from ROW for Cable system		33.74	33.74	
13	Income from advertisements, etc.		0.00	0.00	
14	Miscellaneous receipts		121.63	121.63	
15	Commission for collection of electricity duty		7.96	7.96	
16	Interest on delayed or deferred payment of bills		0.00	0.00	
17	Rebate from Central Generating Stations		141.93	141.93	
18	Revenue from late payment surcharge			0.00	
19	Recovery for theft and pilferage of energy		0.10	0.10	
20	Meter/metering equipment/service line rentals		92.04	92.04	
21	Reactive Energy Charges		5.44	5.44	
22	Wheeling charges Recoveries		0.40	0.40	
23	***Miscellaneous Charges from consumers***				
24	UCM		0.01	0.01	
25	Other Items		29.94	29.94	
26	TF/RF		16.96	16.96	
27	Other Levies On Fee		15.09	15.09	
28	LE/SC Minimum		1.48	1.48	
29	Meter Box Charges		0.00	0.00	
30	Processing Fee for Allocation of Power		2.44	2.44	
31	STOA - Registration and Application fee		0.11	0.11	
32	STOA - Open Access charges		14.05	14.05	
33	Solar Connectivity Fee		1.02	1.02	
34	Penal charge for making the meter inaccessible for billing		0.01	0.01	
35	Energisation charges		2.96	2.96	
36	**Total**		**525.15**	**525.15**	
37	Less: Depreciation claw back			45.33	
38	Balance			**479.82**	

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT - DISTRIBUTION Form - D 2.5 : Subsidy provided by the State Govt under Section 65 of EA 2003 (2016-17)				
No	**Consumer Category**	**Tariff approved**	**Government Reference**	**Relaxtion / Subsidy by Government**
1	**2**	**3**	**4**	**5**
1	**Domestic LT-1 (0-20 Units) (NPG) (With CL < 500 Watts)**	EC: Rs 1.5 per unit		Full Exemption
2	**Domestic LT-1 (0-40 Units) (BPL)**	EC: Rs 1.5 per unit	G.O dated 06.08.2012 and 28.06.2013	Rs 0.35 per unit
3	**Domestic LT-1 (0-50 Units)**	FC:20/connection: EC: Rs 2.80 per unit	-Do-	FC: 20 (for single phase) EC: Rs 0.35 per unit
4	**Domestic LT-1 (51-100 Units)**	FC:20/connection: EC: Rs 3.20 per unit		Fc: 20/connection (for single phase) EC: Rs 0.50 per unit
5	**Domestic LT-1 (101-120 Units)**	FC:20/connection: EC: Rs 420 per unit		Fc: 20/connection (for Single Phase) EC: Rs 0.50 per unit
6	**Domestic LT-1 (Life Support Patients)**	(Various)		Full Electricty Charge free 100 Units by KSEBL Balance by GoK
7	Agricultural LT-V(A)	FC: Rs 8/KW EC: Rs 2.00 per unit		0.85 per unit

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT - DISTRIBUTION															
Form D 3.1 : Power Purchase Expenses (2016-17)															
S. No.	Power station / Source	Installed Capacity (MW)	Utility share (%)	Utility share (MW)	Total Energy Sent Out (ESO) (MU)	Ext Losses (MU)	Energy at State boundary (MU)	Annual Fixed charges (Rs Cr)	Capacity Charges (Rs Crore)	Variable Cost (Rs/kWh)	Total Variable Charges (Rs Crore)	Incentive (Rs Cr)	*Other Charges* [1]	Total Cost (Rs Cr)	Avg Cost (Rs/kWh)
1	2	3	4	5	6	7	8	11	12	13	14	15	16	17	18
I	**Central Generating Stations**														
1	RSTPS – I & II	2100	11.67	245.07	1,894.97	69.94	1825.03	976.4701	101.73	2.24	408.30	7.40	29.56	**546.98**	**3.00**
2	RSTPS – III	500	12.20	61.00	458.46	17.02	441.44	318.5678	39.39	2.25	99.14	0.00	2.44	**140.97**	**3.19**
3	TALCHER – II	**2000**	21.35	427.00	3,183.25	117.79	3065.45	1119.025	230.68	1.71	525.71	7.89	46.37	**810.65**	**2.64**
4	SIMHADRI TPS- II	**1000**	8.92	89.20	694.95	25.48	669.47	1093.5591	102.02	2.82	188.93	**0.00**	-4.22	**286.73**	**4.28**
5	NLC II STAGE 1	**630**	10	63.00	483.07	17.82	465.24	269.04	31.21	2.76	128.51	0.29	55.97	**215.99**	**4.64**
6	NLC II STAGE 2	**840**	10.71	89.96	633.20	23.33	609.87	331.61	41.38	2.77	168.74		73.54	**283.66**	**4.65**
7	NLC I EXPANSION	**420**	15.99	67.16	486.50	17.87	468.63	273.02	55.54	2.64	123.85	0.49	16.06	**195.93**	**4.18**
8	NLC II -EXPN	**500**	15.99	79.95	197.47	7.31	190.15	745.5485	42.11	2.57	48.80		13.65	**104.56**	**5.50**
9	NTPL	**1000**	7.25	72.5	503.37	18.54	484.84	1107.98	78.22	2.70	130.81		0.20	**209.24**	**4.32**
10	VALLUR STPS	**1500**	3.33	49.95	323.52	11.96	311.57	1832.261	56.71	2.57	80.18		2.97	**139.86**	**4.49**
11	MAPS	**440**	5.23	23.01	143.02	5.27	137.75		0.00	2.21	30.50		3.44	**33.94**	**2.46**
12	KAIGA	**880**	8.3	73.04	494.27	18.25	476.02		0.00	3.24	154.21		4.30	**158.51**	**3.33**
13	KKNPP	**2000**	13.62	272.3	1,100.78	40.45	1060.33		0.00	3.37	357.57		4.52	**362.09**	**3.41**
14	JHAJJAR												38.90	**38.90**	
15	Less: Credit notes													**-114.66**	
	Sub Total CGS				**10596.83**	**391.03**	**10205.80**		**778.97**	**2.40**	**2445.24**	**16.07**	**287.71**	**3413.34**	**3.34**
	[1] Other Charges include RLDC Charges, Supplementary Claims Such as Capacity and Energy Revision Charges related to previous and Current Year, Interest, NHET Claims, Water Cess, FERV, Heavy Water Adj and Revision Charges, Annual adjustment of SFC Price and SFC Settings for 2014-15 and 2015-16														
	Continued...														

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT - DISTRIBUTION															
Form D 3.1 : Power Purchase Expenses (2016-17)															
No.	Power station / Source	Installed Capacity (MW)	Utility share (%)	Utility share (MW)	Total Energy Sent Out (ESO) (MU)	External Losses (%)	Energy at State boundary (MU)	Annual Fixed charges (Rs Cr)	Capacity Charges (Rs Crore)	Variable Cost (Rs/kWh)	Total Variable Charges (Rs Crore)	Incentive (Rs Cr)	Other Charges*	Total Cost (Rs Cr)	Avg Cost of energy received (Rs/kWh)
1	2	3	4	5	6	7	8	11	12	13	14	15	16	17	18
II	Independent Power Producers within the State														
1	RGCCPP	359.59	...	...	14.929	...	14.929	...	207.1272	...	10.91627	...	-1.52774	216.52	145.03
2	BSES													-8.95	
3	KPCL		...	...	...	...	...	...	...	...	...	...	...	26.59	...
4	Wind- Agali & Rama	32.85	...	...	74.95592	...	74.95592	...	...	...	...	...	...	22.67	3.02
5	Wind Ahalya	8.4	...	...	17.36618	...	17.36618	...	...	...	...	...	...	6.99	4.02
6	Ullunkal	7	...	...	12.981	...	12.981	...	...	...	...	...	...	3.15	2.43
7	Iruttukanam Stage-I	3	...	...	13.14694	...	13.14694	...	...	...	...	...	...	5.27	2.64
8	Iruttukanam Stage-II	1.5	...	...	6.835156	...	6.835156	...	...	...	...	...	...		
9	Karikkayam HEP	10.5	...	...	21.80412	...	21.80412	...	...	...	...	...	...	9.01	4.13
10	Meenvallom	3	...	...	5.98365	...	5.98365	...	...	...	...	...	...	2.92	4.88
11	Kallar		...	...	0.0252	...	0.0252	...	...	...	...	...	...	0.02	9.64
12	Mankulam Panchayat	8	...	...	0.079662	...	0.079662	...	...	...	...	...	...	0.04	5.55
13	Net Banked [2]		...	...	8.786165	...	8.786165	...	...	...	...	...	...	0.00	0.00
14	Solar IPP		...	...	10.09461	...	10.09461	...	...	...	...	...	...		0.00
	Sub Total IPPs net		...	...	178.8298	...	178.8298	...	...	...	...	...	...	284.24	16.39

[1] Energy supplied to RGCCPP by KSEBL at UI Rate

[2] Net Energy Banked for Maniyar, Kuthungal and PCBL

Continued....

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION Form D 3.1 : Power Purchase Expenses (2016-17)															
No.	Power station / source	Installed Capacity (MW)	Utility share (%)	Utility share (MW)	Total Energy Sent Out (ESO) (MU)	External Losses (%)	Energy at State boundary (MU)	Annual Fixed charges (Rs Cr)	Capacity Charges (Rs Crore)	Variable Cost (Rs/kWh)	Total Variable Charges (Rs Crore)	Incentive (Rs Cr)	Other Charges*	Total Cost (Rs Cr)	Avg Cost of energy received (Rs/kWh)
1	2	3	4	5	6	7	8	11	12	13	14	15	16	17	18
III	**Long Term contracts**														
1	Maithon I	1050		150	1119.289	35.85657	1083.432							387.59	3.58
2	Maithon II			150	788.4147	25.10302	763.3117							272.98	3.58
3	DVC Mejia	1000		100	718.9521	22.82257	696.1295							255.55	3.67
4	DVC RTPS	1200		50	231.5373	7.377803	224.1595							96.93	4.32
5	DBFOO Jindal	1200		200	1170.687	57.37056	1113.316							431.63	3.88
6	DBFOO Jhabua	600		115	128.013	3.913445	124.0996							52.24	4.21
	Sub Total			**765**	**4156.893**	**152.444**	**4004.449**							**1496.91**	**3.74**
IV	**Medium Term contracts**														
1	NVVN			300	2132.953	85.13627	2047.817							923.34	4.51
2	BALCO			100	692.4225	29.15533	663.2672							268.54	4.05
	Sub total			**400**	**2825.376**	**114.2916**	**2711.084**							**1191.88**	**4.40**

Continued ....

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION

Form D 3.1 : Power Purchase Expenses (2016-17)

No.	Power station / Source	Installed Capacity (MW)	Utility share (%)	Utility share (MW)	Total Energy Sent Out (ESO) (MU)	External Losses (%)	Energy at State boundary (MU)	Annual Fixed charges (Rs Cr)	Capacity Charges (Rs Crore)	Variable Cost (Rs/kWh)	Total Variable Charges (Rs Crore)	Incentive (Rs Cr)	Other Charges*	Total Cost (Rs Cr)	Avg Cost of energy received (Rs/kWh)
1	2	3	4	5	6	7	8	11	12	13	14	15	16	17	18
V	**Short Term Contracts**														
1	PTC SIMHAPURI			300	390.419	9.36238	381.0566							222.28	5.83
2	DVC thro PTC for May 2016			100	29.3	0.67919	28.62081							9.25	3.23
3	JVC thro PTC for Mar 2017			200	128.825	3.123005	125.702							45.37	3.61
4	JPL thro TATA for Mar 2017			100	65.32011		65.32011							25.30	3.87
5	IEX				495.5241	10.9078	484.6163							179.16	3.70
6	PXIL				119.9991	2.689402	117.3097					359.0033		42.24	3.60
7	DSM				740.6992	0	740.6992							137.61	1.86
8	Swap				6.909925	0.228743	6.681183						661.4229	0.21	
	Sub Total				**1976.996**	**26.99052**	**1950.006**							**661.42**	3.39
VI	Transmission charges													503.62	
	Grand Total				**19734.92**	**684.7552**	**19050.17**							**7551.42**	3.96

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION Form-D3.4 : Operations and Maintenance Expenses (2016-17)						
No.	**Particulars**	**Ref**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**
I	**EMPLOYEE EXPENSES**					
1	Number of Consumers ('000)		11892890	11668031		Data of FY16
	Norms (Rs. Lakh/'000 consumers)		2.54			Data of FY16
2	Distribution Transformers (no.)		72460	73460		Data of FY16
	Norms (Rs. Lakh/Distribution Transformer)		0.35			Data of FY16
3	HT line (km)		64280	59477		Data of FY16
	Norms (Rs. Lakh/km of HT line)		0.42			Data of FY16
4	Sales (kWh)		19325.07	19325.07		Data of FY16
	Norms (Rs./unit of sales)		0.11			Data of FY16
5	Employee Expense (as per norms)		1038.24			Data of FY16
6	Employee Expense (actuals)	3.4(a)		1788.27		
2	Administrative and General Expenses					
1	Number of Consumers ('000)		11892890	11668031		
	Norms (Rs. Lakh/'000 consumers)		0.22			
2	Distribution Transformers (no.)		72460	73460		
	Norms (Rs. Lakh/Distribution Transformer)		0.03			
3	HT line (km)		64280	59477		
	Norms (Rs. Lakh/km of HT line)		0.42			
4	Sales (kWh)		19325.07	19325.07		
	Norms (Rs./unit of sales)		0.01			
4	A&G Expense (as per norms)		92.94			
5	A&G Expense (actuals)	3.4(b)		300.11		
Continued...						

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION						
Form-D 3.4 : Operations and Maintenance Expenses (2016-17)						
No.	**Particulars**	**Ref**	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**	**7**
.......Continued						
3	**Repair and Maintenance Expense**					
1	Opening GFA (Rs. Crore)		6514.74			
	Norms (% of opening GFA)		3			
2	R&M Expense (as per norms)		195.44			
3	R&M Expense (actuals)	3.4(c)		190.21		
4	**O&M Expenses**					
1	Employee Expenses (as per norms)		1038.24	2800.43		
2	R&M Expenses (as per norms)		195.44	190.21		
3	A&G Expenses (as per norms)		92.94	300.11		
4	**O&M Expense (as per norms) (1+2+3)**		**1326.62**			
5	**O&M Expense (actuals)**	**3.4(a-c)**		**2278.59**		

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION Form-D 3.4 (a) : Employee Expenses (2016-17)				
No.	**Particulars**	**Reference**	**Audited**	**Remarks**
1	**2**	**3**	**4**	**5**
1	Basic Salary		1410.23	
2	Dearness Allowance (DA)		303.91	
3	House Rent Allowance		37.68	
4	Conveyance Allowance		0.00	
5	Leave Travel Allowance		0.10	
6	Earned Leave Encashment		118.43	
7	Other Allowances		27.50	
8	Medical Reimbursement		8.58	
9	Overtime Payment		0.04	
10	Bonus/Ex-Gratia Payments		7.72	
11	Interim Relief / Wage Revision		0.00	
12	Staff welfare expenses		3.99	
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		0.42	
17	**Net Employee Costs**		**1918.60**	
18	Terminal Benefits		1000.83	
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	
19	Others		11.33	
20	**Gross Employee Expenses**		2930.76	
21	Less: Expenses Capitalized		130.33	
22	**Net Employee Expenses**		**2800.43**	

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION				
Form-D 3.4 (b) : Administrative & General Expenses (2016-17)				
S. No.	Particulars	Reference	Audited	Remarks
1	2	3	4	11
1	Rent Rates & Taxes		7.34	
2	Insurance		0.13	
3	Telephone & Postage, etc.		2.37	
4	Legal charges		1.16	
5	Audit Fees		1.20	
6	Consultancy charges		0.28	
7	Other Professional charges		0.51	
8	Conveyance		50.52	
9	Vehicle Running Expenses Truck / Delivery Van		0.54	
10	Vehicle Hiring Expenses Truck / Delivery Van		2.60	
11	Electricity charges		7.20	
12	Water charges		0.38	
13	Entertainment		0.51	
14	Fees & subscription		0.04	
15	Printing & Stationery		8.38	
16	Advertisements, exhibition publicity		0.99	
17	Contribution/Donations		0.55	
18	Training expenses		0.45	
19	Miscellaneous Expenses		3.26	
20	DSM activities		2.73	
21	SRPC expenses		0.11	
	Continued.....			

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION				
Form-D 3.4 (b) : Administrative & General Expenses (2016-17)				
S. No.	**Particulars**	**Reference**	**Audited**	**Remarks**
1	**2**	**3**	**4**	**11**
	.....Continued			
22	Sports and related activities		0.13	
23	Freight		5.71	
24	Purchase Related Advertisement Expenses		0.38	
25	Bank Charges		1.07	
26	Office Expenses		59.32	
27	License Fee and other related fee		2.31	
28	Cost of services procured		0.00	
29	Outsourcing of metering and billing system		0.00	
30	V-sat, Internet and related charges		0.07	
31	Security arrangements		0.00	
32	Books & periodicals		0.03	
33	Computer Stationery		0.00	
34	Others		0.27	
	Others- Other Purchase related Expenses		1.71	
	Others - Expenditure inconeection with distribution of LED		29.22	
35	**Gross A&G Expenses**		**191.50**	
36	**Ele. Duty u/s 3(I), KED Act**		**115.27**	
37	Less: Expenses Capitalised		6.66	
38	**Net A&G Expenses**		**300.11**	

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION				
Form-D 3.4 (C) : Repair & Maintenance Expenses (2016-17)				
S. No.	**Particulars**	**Reference**	**Audited (Rs Cr)**	**Remarks**
1	**2**	**3**	**4**	**10**
1	Plant & Machinery		5.19	
2	Buildings		4.78	
3	Civil Works		1.08	
4	Hydraulic Works		0.11	
5	Lines & Cable Networks		175.90	
6	Vehicles		1.08	
7	Furniture & Fixtures		0.36	
8	Office Equipment		1.71	
9	**Gross R&M Expenses**		**190.21**	
10	Less: Expenses Capitalised			
11	**Net R&M Expenses**		**190.21**	

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION											
Form-D 3.5: Fixed Assets & Depreciation (2016-17)											
No.	Asset Group	Gross fixed assets				Provision 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	Adjustment & deductions	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**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
1	Land & land rights	17.23	0.85		18.09	0.00				17.23	18.09
2	Other Civil works	0.80	0.13		0.93	0.23	0.01		0.24	0.57	0.69
3	HV Distn System										
(a)	Distribution lines	42.39	5.89		48.28	10.44	4.12		14.56	31.95	33.72
(b)	Sub-station Eqpt	57.61	5.42		63.04	19.92	5.57		25.49	37.69	37.55
	(i) Transformers	582.69	34.81		617.49	284.96	30.66		315.61	297.73	301.88
	(ii) Switchgears etc	0.10	0.00		0.10	0.09	0.00		0.09	0.01	0.01
	(iii) Batteries	0.18	0.10		0.29	0.06	0.02		0.09	0.12	0.20
4	LT Dist System										
(a)	Distribution lines	4441.77	746.67		5188.43	2064.51	340.90		2405.41	2377.26	2783.03
(b)	Sub-station Eqpt	0.00				0.00	0.00			0.00	0.00
	(i) Transformers	38.25	6.66		44.91	23.34	3.64		26.98	14.91	17.93
	(ii) Others	23.69	20.92		44.61	9.03	0.19		9.22	14.66	35.39
5	Commun Eqpt	0.42	0.00		0.42	0.22	0.02		0.24	0.20	0.18
6	Meters	1246.07	46.25		1292.32	725.25	121.27		846.52	520.82	445.80
7	Vehicles	7.15	0.55		7.70	7.46	0.94		8.40	-0.31	-0.70
Continued...											

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION											
Form-D 3.5: Fixed Assets & Depreciation (2016-17)											
No.	Asset Group	Gross fixed assets				Provision 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	Adjustment & deductions	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**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
...Continued											
8	Furniture & fixtures	23.16	7.64		30.80	9.97	2.09		12.07	13.19	18.73
9	Office Equipments	16.25	8.91		25.16	5.66	1.70		7.36	10.59	17.80
13	IT Equipments	64.12	19.39		83.51	31.13	12.23		43.36	32.99	40.15
14	Buildings	45.26	4.04		49.30	7.25	9.10		16.34	38.01	32.95
15	Other (Hydr Works)	0.07	0.00		0.07	3.73	0.21		3.94	-3.67	-3.87
16	Depreciation in the initial BS of IND AS accounts						-178.48				
17	**Gross Asset [Total : 1-15]**	**6607.20**	**908.25**	**0.00**	**7515.45**	**3203.26**	354.17	**0.00**	**3735.92**	**3403.94**	**3779.53**
18	Less: Cons contribution	753.19	58.55		811.74					753.19	811.74
19	Less: Government grants	34.66	371.18	77.10	328.74					34.66	328.74
20	Less: Deposit Works										
21	Less: Capital Subsidies	54.80	70.74		125.54					54.80	125.54
22	Net Asset (16-17-18-19-20)	5764.55	407.78		6172.33					2561.29	2513.52

Note: This form has been prepared in line with IND AS accounts. Depreciation claim as per petition differ due to the reasons stated in Chapter 5.

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION				
Form D 3.6 (a): Calculation of Weighted Average Rate of Interest on Actual Loans (2016-17)				
No.	**Particulars**	**Approved**	**Audited**	**Remarks**
1	**2**	**3**	**4**	**12**
1	**Loan from LIC**			
i.	Gross Loan -Opening			
ii.	Cum repayments up to previous year			
iii.	Net loan-Opening		6.00	
iv.	Add: Drawal(s) during the Year		0.00	
v.	Less: Repayment (s) of Loans during the year		4.18	
vi	IND Adj		0.91	
vii	Net loan - Closing		0.91	
viii	Average Net Loan		3.46	
ix	Rate of Interest on Loan on annual basis		9	
x	Interest on loan		0.19	
xi	*Loan repayment effective from*			
2	**REC-Various schemes**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		373.85	
iv.	Add: Drawal(s) during the Year		637.59	
v.	Less: Repayment (s) of Loans during the year		14.86	
vi	IND AS Adj		133.80	
vii	Net loan - Closing		862.78	
viii	Average Net Loan		618.32	
ix	Rate of Interest on Loan on annual basis		8.5-12.37	
x	Interest on loan		46.44	
xi	*Loan repayment effective from*			
3	**REC-For R-APDRP Part B**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		141.49	
iv.	Add: Drawal(s) during the Year		64.93	
v.	Less: Repayment (s) of Loans during the year		-3.35	
vi	IND Adj		34.01	
vii	Net loan - Closing		175.76	
viii	Average Net Loan		158.63	
ix	Rate of Interest on Loan on annual basis		9.92-11.14	
x	Interest on loan		19.43	
xi	*Loan repayment effective from*			
Continued...				

No.	Particulars	Approved	Audited	Remarks
1	2	3	4	12
	.....Continued			
4	**REC-Medium Term Loan**			
i.	Gross Loan -Opening			
ii.	Cum repayments up to previous year			
iii.	Net loan-Opening		59.27	
iv.	Add: Drawal(s) during the Year		0.00	
v.	Less: Repayment (s) of Loans during the year		59.27	
vi	IND Adj		0.00	
vii	Net loan - Closing		0.00	
viii	Average Net Loan		29.64	
ix	Rate of Interest on Loan on annual basis		12.75-13	
x	Interest on loan		1.63	
xi	*Loan repayment effective from*			
5	**REC-RGGVY**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		14.12	
iv.	Add: Drawal(s) during the Year		2.17	
v.	Less: Repayment (s) of Loans during the year		8.24	
vi	IND Adj		1.55	
vii	Net loan - Closing		6.50	
viii	Average Net Loan		10.31	
ix	Rate of Interest on Loan on annual basis		10.5-11.75	
x	Interest on loan		0.84	
xi	*Loan repayment effective from*			
6	**PFC**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		84.80	
iv.	Add: Drawal(s) during the Year		568.87	
v.	Less: Repayment (s) of Loans during the year		-2.01	
vi	IND Adj		2.46	
vii	Net loan - Closing		653.22	
viii	Average Net Loan		369.01	
ix	Rate of Interest on Loan on annual basis		9.08-11.75	
x	Interest on loan		10.19	
xi	*Loan repayment effective from*			
Continued...				

No.	Particulars	Approved	Audited	Remarks
1	2	3	4	12
	.....Continued			
7	**South Indian Bank**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		40.01	
iv.	Add: Drawal(s) during the Year		0.00	
v.	Less: Repayment (s) of Loans during the year		-0.95	
vi	IND Adj		2.22	
vii	Net loan - Closing		38.74	
viii	Average Net Loan		39.38	
ix	Rate of Interest on Loan on annual basis		10	
x	Interest on loan		4.10	
xi	*Loan repayment effective from*			
8	**PFC GEL KAKKAYAM**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		3.99	
iv.	Add: Drawal(s) during the Year		10.71	
v.	Less: Repayment (s) of Loans during the year		-0.09	
vi	IND Adj		1.66	
vii	Net loan - Closing		13.13	
viii	Average Net Loan		8.56	
ix	Rate of Interest on Loan on annual basis		10.5-11	
x	Interest on loan		1.33	
xi	*Loan repayment effective from*			
9	**PFC R APDRP**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		251.00	
iv.	Add: Drawal(s) during the Year		40.26	
v.	Less: Repayment (s) of Loans during the year		0.40	
vi	IND Adj		0.00	
vii	Net loan - Closing		290.86	
viii	Average Net Loan		270.93	
ix	Rate of Interest on Loan on annual basis		9	
x	Interest on loan		25.09	
xi	*Loan repayment effective from*			
	Continued...			

No.	Particulars	Approved	Audited	Remarks
1	2	3	4	12
	.....Continued			
10	**Loan from REC-DDG Scheme**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		0.00	
iv.	Add: Drawal(s) during the Year		0.06	
v.	Less: Repayment (s) of Loans during the year		0.00	
vi	IND Adj		0.00	
vii	Net loan - Closing		0.06	
viii	Average Net Loan		0.03	
ix	Rate of Interest on Loan on annual basis		11	
x	Interest on loan		0.00	
xi	*Loan repayment effective from*			
11	**Loan from NABARD-RIDF**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		0.00	
iv.	Add: Drawal(s) during the Year		0.20	
v.	Less: Repayment (s) of Loans during the year		0.00	
vi	IND Adj		0.00	
vii	Net loan - Closing		0.20	
viii	Average Net Loan		0.10	
ix	Rate of Interest on Loan on annual basis		6.25	
x	Interest on loan		0.00	
xi	*Loan repayment effective from*			
12	**Bank of India**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		200.03	
iv.	Add: Drawal(s) during the Year		292.50	
v.	Less: Repayment (s) of Loans during the year		376.28	
vi	IND Adj		0.00	
vii	Net loan - Closing		116.25	
viii	Average Net Loan		158.14	
ix	Rate of Interest on Loan on annual basis		9	
x	Interest on loan		20.24	
xi	*Loan repayment effective from*			
	Continued...			

No.	Particulars	Approved	Audited	Remarks
1	2	3	4	12
	.....Continued			
13	**South Indian Bank**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		44.45	
iv.	Add: Drawal(s) during the Year		120.00	
v.	Less: Repayment (s) of Loans during the year		104.45	
vi	IND Adj		0.00	
vii	Net loan - Closing		60.00	
viii	Average Net Loan		52.23	
ix	Rate of Interest on Loan on annual basis		9	
x	Interest on loan		8.15	
xi	*Loan repayment effective from*			
14	**Syndicate Bank**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		44.45	
iv.	Add: Drawal(s) during the Year		0.00	
v.	Less: Repayment (s) of Loans during the year		44.45	
vi	IND Adj		0.00	
vii	Net loan - Closing		0.00	
viii	Average Net Loan		22.23	
ix	Rate of Interest on Loan on annual basis		9	
x	Interest on loan		1.09	
xi	*Loan repayment effective from*			
15	**State Bank of India**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		333.39	
iv.	Add: Drawal(s) during the Year		0.00	
v.	Less: Repayment (s) of Loans during the year		183.39	
vi	IND Adj		0.00	
vii	Net loan - Closing		150.00	
viii	Average Net Loan		241.70	
ix	Rate of Interest on Loan on annual basis		9	
x	Interest on loan		31.60	
xi	*Loan repayment effective from*			

No.	Particulars	Approved	Audited	Remarks
1	2	3	4	12
	.....Continued			
16	**Vijaya Bank**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		88.90	
iv.	Add: Drawal(s) during the Year		120.00	
v.	Less: Repayment (s) of Loans during the year		148.90	
vi	IND Adj		0.00	
vii	Net loan - Closing		60.00	
viii	Average Net Loan		74.45	
ix	Rate of Interest on Loan on annual basis		9	
x	Interest on loan		8.58	
xi	*Loan repayment effective from*			
17	**Andhra Bank**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		133.36	
iv.	Add: Drawal(s) during the Year		330.00	
v.	Less: Repayment (s) of Loans during the year		283.36	
vi	IND Adj		0.00	
vii	Net loan - Closing		180.00	
viii	Average Net Loan		156.68	
ix	Rate of Interest on Loan on annual basis		9	
x	Interest on loan		17.73	
xi	*Loan repayment effective from*			
18	**Total Loan**			
i.	Gross Loan -Opening			
ii.	Cum repayments of Loans upto previous year			
iii.	Net loan-Opening		1819.12	
iv.	Add: Drawal(s) during the Year		2187.29	
v.	Less: Repayment (s) of Loans during the year		1221.40	
vi	IND Adj		176.61	
vii	Net loan - Closing		2608.40	
viii	Average Net Loan		2213.77	
ix	Rate of Interest on Loan on annual basis		8.88	
x	Interest on loan	57.84	196.63	
xi	*Loan repayment effective from*			
	IND AS adjustments		33.72	
19	**Total Loan**		**230.35**	

Note: Interest net of capitalization Rs.264.83 Cr as per D1_1 differed from the interest shown above due to the difference in classification of expenses among SBUs as per accounts as detailed in chapter 5..

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION					
Form D 3.6 (B): Calculation of Interest on Normative Loan (2016-17)					
No	**Particulars**	**Approved**	**Normative**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5 = 4 - 3**	**12**
1	**Gross Normative loan - Opening**				
2	Cumulative repayment of Normative Loan up to previous year				
3	Net Normative loan - Opening		1819.12		
4	Increase/Decrease due to ACE/de-capitalization during the Year		2187.29		
5	Repayments of Normative Loan during the year		1221.40		
6	Net Normative loan - Closing		176.61		
7	Average Normative Loan		2608.40		
8	Weighted average Rate of Interest of actual Loans		2213.77		
9	Interest on Normative loan		8.88		
10	Actual Interest	57.84	196.63		
11	IND AS adjustments		33.72		
12			230.35		

Note: Interest net of capitalization Rs.264.83 Cr as per D1_1 differed from the interest shown above due to the difference in classification of expenses among SBUs as per accounts as detailed in chapter 5.

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION Form D 3.6 (c): Interest on Bonds to meet Terminal Liabilities (2016-17)					
No	Particulars	Approved	Normative	Truing Up	Remarks
1	2	3	4	5	6
A	**Bond Series 1**				
1	Value of Bond	6853.2	NA		
2	Rate of Interest on Bond	10	NA		
3	Interest on Bond	685.32	NA		

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION Form D 3.8 : Return on Equity (2016-17)						
No	Particulars	Ref	Approved	Audited	Normative	Truing Up
1	2	3	4	5	6	7
1	Equity at the beginning of the year		490.28			490.28
2	Capitalisation					
3	Equity portion of capitalisation					
4	Equity at the end of the year					
	Return Computation					
5	Return on Equity at the beginning of the year	14%*(1)				
6	Return on Equity portion of capitalisation	14%*(3)/2				
7	**Total Return on Equity**	**(5)+(6)**	**68.64**			**68.64**

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION Form D 4.1 : Capital Expenditure - Project / Scheme Wise (2016-17)						
No	**Project/Scheme Description**	**Opening Balance**	**Exp. In the year**	**Interest During Const.**	**Transfer to fixed Assets**	**Closing Balance of WIP**
1	**2**	**3**	**4**	**5**	**6**	**7**
1	Rural Electrification Scheme	0.00	0.27		0.26	**0.00**
2	Distribution Line Extension	2.43	97.47		99.47	**0.43**
3	Dist Service Connection	2.63	119.64		120.99	**1.29**
4	Dist System Improvement	12.51	206.60		212.88	**6.23**
5	Electrifn of Harijan Colonies	0.00	0.36		0.35	**0.01**
6	Electrifn of Tribal Colonies	0.02	1.44		1.46	**0.00**
7	Punja Package	0.00	0.07		0.00	**0.07**
8	System Imp in other areas	0.00	2.22		2.22	**0.00**
9	Distbn. Cap Instn Scheme	0.00	0.00		0.00	**0.00**
10	Street Lights	0.82	10.78		10.74	**0.86**
11	RGGVY- Infrastructure	39.83	9.46		48.99	**0.30**
12	RGGVY- BPL Connection	0.26	0.13		0.15	**0.24**
13	R-APDRP Part B Projects	102.56	72.00		26.33	**148.23**
14	MLA Fund (MLA ADF)	0.00	0.01		0.01	**0.00**
15	R- APDRP Scheme	289.94	215.25		57.24	**447.96**
16	APDRP-Scheme	6.18	12.33		11.98	**6.53**
17	CWIP - General	42.54	369.16		308.72	**102.97**
18	Innovation fund	0.00	5.03		5.03	**0.00**
19	Projects not Identified	1.63	0.59		1.43	**0.78**
20	**TOTAL**	**501.36**	**1122.22**		**908.25**	**715.91**

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION Form D 4.2 : Consolidated report on additions to Fixed Assets during the year (2016-17)				
No.	**Asset Description**	**Asset Code**	**Total Addition to Assets**	**Date of commissioning**
01.	Land & Land Rights	10.1	0.85	Various
02.	Buildings	10.2	4.04	Various
03.	Hydraulic Works	10.3	0.00	Various
04.	Other Civil Works	10.4	0.13	Various
05.	Plant & Machinery	10.5	67.93	Various
06.	Lines, Cable, Network etc.	10.6	798.81	Various
07.	Vehicles	10.7	0.55	Various
08.	Furniture & Fixtures	10.8	7.64	Various
09.	Office Equipments	10.9	28.30	Various
	TOTAL		**908.25**	

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION Form D 4.3 General (Other debits, write offs or any other items)					
	Particulars	**Approved**	**Audited**	**Truing Up**	**Remarks**
1	**2**	**3**	**4**	**5 = 4 - 3**	**12**
1	Material Cost Variance		66.82	66.82	
2	Research and Development Expenses		0.05	0.05	
3	Bad and Doubtful Debts Written off / Provided / demand withdrawal		8.54	8.54	
4	Miscellaneous Losses and Write Offs		15.78	15.78	
5	Sundry Expenses		0.02	0.02	
6	Change in fair valuation and other adjustment		(60.02)	(30.98)	
7	Prior period expenses		(121.58)	(121.58)	
8	**Total**				
9	Less				
10	Chargeable to Capital Expenses				
11	Net chargeable to revenue		**(90.39)**	**(61.35)**	

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT - DISTRIBUTION Form D 6.1 : Improvement in performance (2016-17)					
No.	**Particulars**	**Ref**	**2016-17**	**2015-16**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
1	Distribution Losses, (%)		11.03%		
2	Collection Efficiency, (%)				
4 (a)	Percentage of consumers billed		100%		
4 (b)	Revenue realisation , (Rs Cr)		11036.78		
5	Stopped Meters %		1.07		
6 (a)	Defective meters/metering arrangement%		7.18		
6 (b)	Replacement of Defective meters, %		35.17		
7	**Supply availability %**				
(1)	**Base Load supply availability**				
(a)	Actual contracted Base Load supply in MW		2437		
(b)	Base Load in MW		2313		
(c)	Base Load supply availability (%) (c=a/b)		105.36%		
(2)	**Peak Load supply availability**				
(d)	Actual Contracted Peak Load Supply in MW		3575		
(e)	Peak load in MW		3767		
(f)	Peak Load Supply Availability (%) (c=a/b)		94.91%		
	Supply availability %(0.75*c + 0.25*f)		102.75%		
8	Transformer failure rate				
a.	Distribution transformers (%)		1.57%		
b.	Power transformers (%)				

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION Form D 6.2 : Appropriation of Distribution Losses (2016-17)						
No	**Particulars**	**Energy Input**	**Energy Sales**	**Enrergy sent to lower voltage**	**Distribution Loss**	
		MKWh	MKWh	MKWh	Percent	MKWh
1	**2**	**3**	**4**	**5**	**6**	**7**
	Voltage-wise Apportionment of Distribution losses					
1	33 kV	20803.14	118.36	20175.94	2.45	508.84
2	11 kV	20175.94	3321.51	16219.10	3.15	635.33
3	LT	16219.10	15068.35		7.10	1150.75
4	**Overall Distribution Loss**		18508.22		11.03	2294.92
Note:	***If EHT sale is considered as energy sale by distribution licensee then energy input includes energy sale corresponding to EHT sales also. Then overall distribution loss is as follows***					
No	Particulars				Quantity	Unit
1	EHT sales for 2016-17				1944.69	MU
2	Energy input at Distribution periphery				22747.83	MU
3	Total distribution loss considering EHT sales as sales by distribution licensee				10.09	%

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION

Form D 7.1 : Category wise Sales (2016-17)

No.	Category	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
1	LT IA	1020.13	940.12	894.29	788.21	847.11	835.32	833.29	732.46	842.17	812.27	823.41	905.90	10274.70
2	LT II	0.50	0.48	0.49	0.48	0.53	0.55	0.54	0.50	0.52	0.52	0.44	0.48	6.03
3	LT III	0.11	0.13	0.08	0.09	0.13	0.11	0.08	0.10	0.30	0.21	0.21	0.12	1.65
4	LT IV	96.42	98.00	89.23	91.29	98.23	96.18	98.82	90.43	95.56	94.86	84.68	98.20	1131.91
5	LT V	34.03	24.82	18.68	18.46	17.42	19.98	15.67	27.79	31.01	45.94	34.68	33.50	321.98
6	LT VI	131.23	124.30	117.09	119.14	125.73	122.54	128.46	129.22	136.74	128.69	123.50	137.22	1523.87
7	LT VII	130.45	126.92	109.87	109.63	117.07	119.16	116.80	118.56	122.25	118.12	113.97	127.88	1430.66
8	LT VIII	30.84	31.48	31.75	31.88	30.84	31.97	34.31	27.38	31.54	31.09	31.42	31.27	375.77
9	LT IX	0.17	0.14	0.17	0.10	0.13	0.12	0.20	0.10	0.20	0.12	0.19	0.13	1.78
10	**LT Total**	**1443.89**	**1346.39**	**1261.64**	**1159.28**	**1237.20**	**1225.92**	**1228.16**	**1126.54**	**1260.30**	**1231.83**	**1212.49**	**1334.70**	**15068.35**
11	HT I (A) INDL	163.98	161.48	156.17	159.32	173.16	157.87	167.27	165.43	155.00	158.96	151.97	171.04	1941.64
12	HT I (B) INDL	0.93	0.89	0.89	0.86	0.93	0.85	0.90	0.90	0.93	0.90	0.89	1.03	10.90
13	HT II (A) GENL	18.23	16.83	15.50	15.74	17.02	15.72	16.80	17.17	16.97	16.77	15.99	19.34	202.09
14	HT II (B) GENL	47.68	45.43	39.47	41.35	44.38	41.16	43.85	43.55	42.27	42.73	40.74	47.48	520.09
15	HT III (A) AGRI	0.98	0.57	0.37	0.37	0.38	0.43	0.63	0.77	0.83	0.94	0.77	0.82	7.84
16	HT III (B) AGRI	0.08	0.10	0.11	0.11	0.12	0.12	0.12	0.12	0.13	0.13	0.11	0.12	1.38
17	HT IV COMML	55.37	53.62	44.32	47.45	51.77	48.98	50.03	49.75	51.57	50.23	47.30	53.82	604.23
18	HT V DOMST	1.02	1.10	1.05	1.10	1.21	1.09	1.17	1.16	1.21	1.19	1.12	1.24	13.67
19	**HT Total**	**288.28**	**280.03**	**257.88**	**266.29**	**288.96**	**266.23**	**280.76**	**278.84**	**268.91**	**271.86**	**258.90**	**294.89**	**3301.83**

Continued...

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION														
Form D 7.1 : Category wise Sales (2016-17)														
No.	**Category**	**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
...Continued														
21	EHT-GEN	5.76	5.48	5.20	5.18	5.28	4.94	5.13	5.24	5.25	5.71	5.34	6.23	64.73
22	EHT I -- INDL	22.01	17.26	15.52	16.27	16.87	13.43	13.46	14.68	15.80	12.25	15.33	16.54	189.42
23	EHT II -INDL	54.23	42.63	38.85	45.34	46.76	40.04	40.17	40.48	40.72	40.66	34.85	41.54	506.26
24	EHT II- RAIL	18.36	18.91	17.99	19.08	19.55	18.67	19.12	18.70	20.04	20.34	18.38	20.45	229.59
25	EHT III INDL	2.44	4.69	3.11	6.01	8.20	2.52	4.22	4.24	6.56	11.51	7.50	4.98	65.97
26	**EHT Total**	**102.79**	**88.96**	**80.67**	**91.88**	**96.65**	**79.60**	**82.10**	**83.35**	**88.36**	**90.47**	**81.40**	**89.73**	**1055.97**
27	Mahi Territory	4.29	4.21	4.26	3.72	3.74	3.43	3.61	3.46	3.21	3.45	3.43	4.09	44.91
29	Karnataka	0.08	0.06	0.04	0.05	0.05	0.05	0.06	0.06	0.07	0.09	0.09	0.10	0.80
30	Cochin Port	3.46	3.39	3.00	2.94	3.03	2.84	2.99	2.92	3.09	2.79	2.65	3.15	36.25
31	CSEZ	4.95	4.78	4.95	4.93	5.07	4.69	4.73	4.78	4.54	4.21	3.83	4.62	56.08
32	KDHPCL	3.75	3.99	3.83	3.09	3.46	3.80	3.76	3.88	3.75	3.55	3.10	3.87	43.82
33	KPUPL	6.78	6.94	6.50	6.48	6.78	6.63	7.03	6.91	6.89	6.79	6.36	7.48	81.57
34	MES	6.14	6.39	5.50	5.72	6.29	5.67	5.96	5.62	5.75	5.69	5.67	6.00	70.39
35	RPL	2.51	2.85	3.10	3.14	2.67	1.85	2.02	2.85	2.85	2.61	2.60	3.17	32.22
36	TECHNOPARK	7.59	7.61	7.04	7.05	7.33	6.94	7.14	7.28	7.18	7.05	6.36	7.70	86.28
37	THRISSUR CORP	15.13	14.16	11.57	12.03	12.65	11.71	12.54	12.22	12.35	12.63	11.99	13.23	152.21
38	INFOPARK	0.51	0.52	0.50	0.51	0.55	0.51	0.52	0.57	0.54	0.57	0.55	0.64	6.49
39	SMART CITY	0.01	0.02	0.04	0.07	0.09	0.09	0.10	0.10	0.12	0.13	0.14	0.16	1.08
40	**Licensee Total**	**55.19**	**54.92**	**50.33**	**49.72**	**51.73**	**48.22**	**50.46**	**50.65**	**50.33**	**49.57**	**46.79**	**54.19**	**612.10**
41	**Grand Total**	**1890.16**	**1770.29**	**1650.52**	**1567.17**	**1674.54**	**1619.98**	**1641.48**	**1539.37**	**1667.91**	**1643.73**	**1599.57**	**1773.52**	**20038.25**

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION Form-D8 : Deviation Analysis (2016-17)							
No.	**Particulars**	**Approved**	**True up**	**Deviation**	**Reason**	**Controllable**	**Uncontrollable**
1	2	3	4	5	6	7	8
1	Cost of own generation/power purchase	8425.37	8246.64	-178.73			
2	Transmission Charges	881.30	991.11	109.81			
3	NLDC/RLDC/SLDC Charges						
4	Operation & Maintenance Expenses	1326.62	2278.59	951.97			
4.1	Employee Expenses	1038.24	1788.27	750.03			
4.2	Administration & General Expenses	92.94	300.11	207.17			
4.3	Repair & Maintenance Expenses	195.44	190.21	-5.23			
5	Interest and finance charges (LT Loans)	57.84	264.83	206.99			
6	Depreciation	58.12	245.51	187.39			
7	Interest on Working Capital	0.00	248.94	248.94			
8	Interest on Bonds for Terminal Liabilities	684.98	0.00	-684.98			
9	Interest on Security deposits etc	120.12	163.56	43.44			
10	Interest on GPF	110.44	143.45	33.01			
11	Other Interest	8.41	19.10	10.69			
12	Other debits		91.21	91.21			
15	Prior period expenses		-121.58	-121.58			
16	Change in fair value adjustments		-30.98	-30.98			
	Terminal benefits		1012.16	1012.16			
A	**Total Expenditure**	11673.20	13552.54	1879.34			
B	**Return on Equity**	68.64	68.64	0.00			
D	**Revenue**						
1	Revenue from sale of electricity	10900.72	11036.77	136.06			
2	**Other Income**	**441.00**	**479.82**	38.82			
	Revenue Gap	**400.12**	**2104.59**	**1704.47**			

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION Form D P&L : Profit & Loss Account (2016-17)					
S.No.	**Particulars**	**Ref**	**2016-17**	**2015-16**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
1	**I.INCOME**				
2	a. Revenue from Sale of Power		11036.77	10487.71	
3	b. Revenue Subsidies and Grants				
4	c. Other Income		479.82	686.27	
5	Total (a+b+c)		**11516.59**	**11173.98**	
6	**II. EXPENDITURE**				
7	a. Repairs and Maintenance.		190.21	185.82	
8	b. Employee Cost		1788.27	1742.82	
	Terminal benefits		1012.16	927.01	
9	c. Administration and General Expenses		300.11	261.15	
10	d.Depreciation		245.51	236.13	
11	e.Interest and Finance charges		839.88	741.19	
12	f. Subtotal (a+b+c+d+e)		**4376.14**	**4094.12**	
13	g. Less Capitalised Expenses:				
14	- Interest & Finance Charges				
15	- Other Expenses				
16	h. Other Debits		91.21	88.38	
17	I. Change in fair value adjustments		-30.98		
18	j. Purchase of power		9237.75	7721.81	
19	k.Generation of Power				
20	Total Expenditure (f-g+h+i+j+k)		**13674.12**	**11904.31**	
21	**III. Profit /(Loss) before Tax (I-II)**		-2157.52	-730.33	
22	**IV. Provision for Income Tax**				
23	**V.Net Prior period credits (Charges)**		121.58	-9.92	
24	**VI. Surplus (Deficit)**		**68.64**	**68.64**	
25	**VII. Net Assets at year Start**				
26	**VIII. Rate of Return (VI / VII)**		14% of Equity	14% of Equity	

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION Form D BS : Balance Sheet at the yearend (2016-17)					
No.	**Particulars**	**Ref**	**2016-17**	**2015-16**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
1	**Sources of Funds:**				
2	(A) Capital Funds:				
3	Share Capital (Govt. equity)		1028.88	1555.40	
4	Reserves & Surplus		-7407.88	-1613.72	
5	**Total (A)**		**-6379.00**	**-58.32**	
6	(B) Loan from State Government				
7	Loan from others :				
8	-Secured		566.25	974.53	
9	-Unsecured		2042.15	844.59	
10	**Total (B)**		**2608.40**	**1819.12**	
11	(C) Contribution, Grants & Subsidies for capital assets		1266.02	816.14	
12	Provident Fund		1666.59	1227.92	
13	Terminal Benefit Fund		4960.42	369.44	
14	Borrowings for working capital				
15	Other Noncurrent liabilities		68.26		
16	Long term Provision		1732.29	1414.93	
17	**Grand total of sources of funds (A+B+C)**		**5922.99**	**5589.23**	
	Continued...				

No.	Particulars	Ref	2016-17	2015-16	Remarks
1	2	3	4	5	6
	.......**Continued**				
18	**Application of Funds:**				
19	(A) Fixed assets				
20	a) Gross fixed assets		7336.97	6607.20	
21	b) Less accumulated depreciation		3557.43	3203.26	
22	c) Net Fixed assets((a)-(b))		**3779.54**	**3403.94**	
23	d) Capital works in progress		677.03	501.36	
24	e) Assets not in use				
25	f) Deferred costs		0.08	0.08	
26	g) Intangible assets				
27	h) Investments		7.00	6.70	
28	Other Noncurrent assets-Other Financial Assets		68.54	73.14	
29	**Total (c) +(d)+(e)+(f)+(g)+(h)**		**4532.19**	**3985.22**	
30	(B)Subsidy receivable from Government			761.47	
31	Govt Contribution receivable for Pension Liability		3700.68	5232.41	
32	(C) Net Current Assets				
33	(1) Current assets, loans and advances				
34	a) Inventories*		230.31	197.98	
35	b) Receivables against Sale of Power		1923.40	1592.80	
36	c) Cash & bank balances		289.03	200.95	
37	d) Loans and advances		22.86	32.30	
38	e) Sundry receivables		493.50	315.58	
39	**Total (C) (1)**		**2959.10**	**2339.61**	
40	(2) Current liabilities & provisions				
41	a) Security Deposits from Consumers		3115.97	2796.28	
42	b) Borrowings for working capital		263.99	651.58	
43	c) Payments due on Cap. liabilities				
44	d) Other current liabilities		1889.02	3281.62	
45	**Total (C) (2)**		**5268.98**	**6729.48**	
46	Net Current Assets (C1) - (C2)		-2309.88	-4389.87	
47	**Grand Total of Application of funds (A)+(B)+(C)**		**5922.99**	**5589.23**	

Note: Reconciliation between audited accounts and amounts for distribution business should be furnished.

KERALA STATE ELECTRICITY BOARD LIMITED - STRATEGIC BUSINESS UNIT -DISTRIBUTION					
Form D CF : Cash Flow for the year (2016-17)					
No.	**Particulars**	**Ref**	**2016-17**	**2015-16**	**Remarks**
1	**2**	**3**	**4**	**5**	**6**
I	**Net Funds from Operations**				
1	Net Funds from Earnings :				
	(a) Profit before tax and before revenue subsidies and grants		-2056.78	-604.63	
	Less : Income Tax Payment during the year				
	Total of (a)		**-2056.78**	**-604.63**	
	(b) Add: Debits to revenue account not requiring cash Flow:				
	(I) Depreciation		354.17	236.13	
	(ii) Depreciation on Assts Capitalized in the initial BS of INd AS accounts		178.48		
	(ii) Amortization of Deferred costs				
	(iii) Amortisation of Intangible Assets				
	(iv) Investment Allowance Reserve				
	(v) Others, if any		385.62	-549.20	
	Total of (b)		**918.27**	**-313.07**	
	(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)		**-1138.51**	**-917.70**	
2	Contributions, Grants & Subsidies to cost of Capital Assets		449.88	319.92	
3	Security Deposit from consumers		319.69	317.21	
4	Proceeds from disposal of fixed Assets				
5	**Total Funds from Operations (1+2+3+4)**		**-368.94**	**-280.57**	
Continued...					

No.	Particulars	Ref	2016-17	2015-16	Remarks
1	2	3	4	5	6
...Continued					
6	Net Increase/(Decrease) in working Capital				
	(a) Increase/(Decrease) in Current Assets				
	(I) Inventories		32.33	52.75	
	ii) Receivables against sale of power		330.60	179.34	
	iii) Loans and Advances		-9.44	9.05	
	iv) Sundry receivables		177.92	20.15	
	v)Subsidy receivables				
	Total of (a)		**531.41**	**261.29**	
	(b) Increase/(Decrease) in Current liabilities				
	I)Borrowings for working Capital		-387.59	18.43	
	ii) Other current liabilities		-1392.60	309.49	
	iii) Others (Increase in Reserve + payment due on cap.liab)		-3737.38	291.34	
	Total of (b)		**-5517.57**	**619.26**	
	Net Increase/(Decrease) in working Capital (a)- (b)		**6048.98**	**-357.97**	
7	Net Funds from operations before subsidies and Grants (5-6)		-6417.92	77.40	
8	Receipts from revenue subsidies and Grants		2293.20	482.17	
	Total Net Funds from operations including subsidies & Grants (7+8)		**-4124.72**	**559.57**	
II.	**Net increase/ decrease in Capital liabilities**				
	(a). Fresh borrowings				
	I) State Loans				
	ii) Foreign currency Loans / Credits				
	iii) Other borrowings		2187.29	1287.12	
	Total of (a)		**2187.29**	**1287.12**	
	(b) Repayments :				
	I) State Loans				
	ii) Foreign currency Loans / Credits				
	iii) Other borrowings		1398.01	1321.86	
	Total of (b)		**1398.01**	**1321.86**	
	Net Increase/(Decrease) in Capital liabilities (a) - (b)		**789.28**	**-34.74**	
III.	**Increase/(Decrease) in equity Capital**		-526.52	46.00	
IV.	**Total Funds available for Capital Expenditure (I+II+III)**		**-3861.96**	**570.83**	
Continued...					

No.	Particulars	Ref	2016-17	2015-16	Remarks
1	2	3	4	5	6
	.....Continued				
V	**Funds utilised on Capital Expenditure**				
	a)On projects		1083.92	669.74	
	b)Advance to Suppliers & Contractors				
	c) Intangible Assets				
	d) Deferred Cost		0.00	0.05	
	e) Long Term Loans and Advances		-4.60	1.87	
	Total of V (a+b+c+d)		**1079.32**	**671.66**	
VI	**Net Increase/(Decrease) in Government contribution**				
VII	**Net Increase/(Decrease) in Terminal benefit fund**		4590.98	7.16	
VIII	**Net Increase/(Decrease) in Provident fund**		438.67	116.86	
IX	**Net Increase/(Decrease) in investments**		0.30	-1.29	
X	**Net Increase /(Decrease) in cash / bank balance (IV - V- VI -IX)+ (VII+VIII)**		**88.08**	**24.48**	
XI	**Add opening cash & Bank balance**		200.95	176.47	
XII	**Closing Cash & Bank balance (X+XI)**		**289.03**	**200.95**	

Note: Reconciliation between audited accounts and amounts for distribution business should be furnished.

--- End Chapter 4 ---

CHAPTER – 5 : GENERAL EXPLANATION FOR VARIOUS EXPENSES

5.1 Power purchase cost: Power purchase cost and interstate transmission charges for 2016-17 as per Ind As accounts is Rs.7393.32 Cr. As part of finalization of accounts as per IND AS, Rs.158.09 Cr has been included in 2015-16 and the same amount reversed in 2016-17. Hence, power purchase cost for 2016-17 is understated by Rs.158.09 Cr as the same has not been claimed by KSEBL in its truing up petition for 2015-16. Kind attention of the Hon Commission is invited to the Reconciliation Statement of P&L Account as reported under I GAAP and IND AS (Page 11) in the audited accounts wherein a sum of Rs.158.09 Cr towards power purchase, as detailed below, has been included under 2015-16. This expense as per various audit observations has not been claimed in the truing up of accounts for 2015-16. Hon Commission may be pleased to approve Rs.7551.41 Cr in 2016-17.

Table – 5.1 : IND AS ADJUSTMENTS IN POWER PURCHASE (2015-16)

No.	Description		Amount
A	**Audit Qualification 39 of 2015-16** -The Company has not provided payables/receivables in respect of following power purchases which has resulted in understatement of power purchases and trade payables and corresponding understatement of loss amounting to Rs.1,67,89,72,379/-		
1	**BSES – 41128** -FAC for the Tariff period ended 31/10/2015 (Provided in the IND As accounts)		(2.56)
2	**NTPC-41101** - Revision bills		147.41
3	**Maithon Power Limited-41165 -** December 2015-March 15. Water charges.		(0.43)
4	**NLC-41106** -FERV on guarantee fee for the period 2005-06 to 15-16		0.86
5	**NPCIL Kaiga-41161** -Credit bill – difference in Tariff due to change in heavy water for the period 07/2005- 03/2008		(0.33)
6	**NPCIL Kudankulam-41162** - Credit note for unit adjustment of March,2016	-0.57	
	NPCIL Kudankulam-41162 - Revised DSM and REA for the period 31/12/14 to 21/06/2015	3.69	
	NPCIL Kudankulam-41162 - Return on equity tax difference for the year 15-16	4.99	8.11
7	**NPCIL MAPS-41105** - Nuclear liability fund for the year 2015 as per DAE notification dated 08/12/2015	0.40	
	NPCIL MAPS-41105 - Return on equity due to change in tax rate for the year 15-16	0.25	0.65
8	**APCPL-41151-**Energy Bill for March 2016	-0.94	
	APCPL-41151 -SFC, Revision of ECR, RLD charges for prior years.	-6.90	
	APCPL-41151- Revision of AFC and RLDC Charges for 2015-16	0.29	(7.54)
9	**NTECL-41153-** Capacity charges , energy charges and SFC for prior periods		2.61
10	**PGCIL** - Reactive energy charges for the period 5-2-16 to 21-2-16 and POC Bill 4 and 3 for the period jan 16-march 16		18.42
11	**PTC-41110** -Transmission charge for the period Jan 2016 to March 2016		0.70
	TOTAL		**167.90**
B	**Audit Qualification 36 OF 2015-16 -** NLC issued credit Note for the excess AFC claim on 2/09/2015 and Company adjusted the same in the bill for September. However Company made a provision for power purchase from NLC amounting to `85,58,598 /- being un admitted amount of AFC in respect of TPS		(0.86)
C	Audit Qualification 5 OF 2014-15 -The Company has not accounted the power purchases liability from BSES for an amount of Rs.8.95 Cr against invoices raised during the period up to March 2014 which resulted in understatement of Current Liabilities and prior period expenditure by Rs.		(8.95)
	TOTAL ADJUSTMENT A+B+C		**158.09**

5.1.1 Power purchase cost as per audited accounts was Rs. 7393.32 Cr as against I GAAP of Rs.7664.40 Cr. The reason for variation amounting to Rs.271.08 Cr is furnished below:

Table -5.2 : IND AS ADJUSTMENTS IN POWER PURCHASE (2016-17)

No	Party		Amount	Remarks
1	PTCI Ltd - Credit note wrongly adjusted rectified		-0.29	Wrongly adjusted in Account Code: 61411- income from short term open access Account
2	Maithon Power Limited		-0.62	Provision created based on the draft audit report for the FY 2016-17
3	NTPC		-118.24	
4	Damodar Valley Corporation		-1.71	
5	MAPP		0.00	
6	PTCI Ltd		0.33	
7	NTPC Tamilnadu Energy Company Ltd (NTECL)		3.69	
8	NPCIL-KAIGA		1.39	
9	Kudankulam Nuclear Power Project KKNPP		0.31	
10	PGCIL		3.27	
11	NVVN Ltd		8.80	Interest received wrongly accounted in Power purchase account rectified
12	NTPC		3.34	
13	MAITHON POWER LTD:		0.03	
14	Damodar Valley Corporation		0.01	
15	Aravali Power Co Ltd		-3.20	Interest paid wrongly accounted in Power purchase account rectified
16	KPTCL		-6.41	
17	NTPC		-7.15	
18	NTPC		4.89	Power purchase provision
19	Aravali Power Company Pvt. Ltd. (APCPL)		0.01	Power purchase provision
20	Damodar Valley Corporation		7.22	Power purchase provision
21	Aravali Power Company Pvt. Ltd. (APCPL)		0.29	Power purchase provision
22	NLC		-0.16	Power purchase provision
23	TNEB		0.15	Power purchase provision
24	NLC issued credit Note for the excess AFC claim on 2/09/2015 and Company adjusted the same in the bill for September. However Company made a provision for power purchase from NLC amounting to Rs. 85,58,598 /- being un admitted amount of AFC in respect of TPS		0.86	Reversal of adjustment provided in Ind As 2015-16
25	**BSES – 41128** -FAC for the Tariff period ended 31/10/2015	2.56		Reversal of provision made in the Ind As 2015-16
26	**Maithon Power Limited-41165 -** December 2015-March 15. Water charges.	0.43		
27	**NPCIL Kaiga-41161 -**Credit bill – difference in Tariff due to change in heavy water for the period 07/2005- 03/2008	0.33		
28	APCPL-41151	7.54		
29	**NTPC-41101** - Revision bills	-147.41		
29	**NPCIL MAPS-41105 -** Return on equity due to change in tax rate for the year 15-16	-0.65		
30	**NLC-41106** -FERV on guarantee fee for the period 2005-06 to 15-16	-0.86		
31	**PTC-41110 -**Transmission charge for the period Jan 2016 to March 2016	-0.70		
32	**NTECL-41153-** Capacity charges , energy charges and SFC for prior periods	-2.61		
33	NPCIL Kudankulam-41162	-8.11		
34	**PGCIL** - Reactive energy charges for the period 5-2-16 to 21-2-16 and POC Bill 4 and 3 for the period jan 16-march 16	-18.42	-168	
	TOTAL		**-271.08**	

It may be seen that the amounts provided in 2015-16 has been reversed in full. In addition certain adjustments were also made especially to account for Credit notes obtained in 2017-18. Hence, all the adjustments made in 2016-17 are duly captured in this petition. In view of the above submission, Hon Commission may be pleased to admit power purchase cost at Rs.7551.41 Cr.

5.2 Interest and finance charges: An amount of Rs 1488.27 Cr has been approved by the Hon Commission. The actual expense incurred was only Rs.959.92 Cr (net of capitalized interest Rs.64.63 Cr). The variation is primarily because of the fact that the envisaged Master Trust Bonds could not be issued in 2016-17 and corresponding interest of Rs. 814.44 Cr as envisaged was not made in that year. A comparison summary of I & F charges under various heads are given below.

Table 5.3 : Interests and finance Charges (Rs Cr)

Item	Approval	Actual	Difference
Loan Interest	412.85	435.79	-22.94
Security Deposit Interest	120.12	177.27	-57.15
Master Trust Bond Interest	814.06	0.00	814.06
Overdraft interest	0.00	248.94	-248.94
Discount to consumers for advance payment of bills.	0.00	1.48	-1.48
PF interest	131.24	143.45	-12.21
Other interests	10.00	17.62	-7.62
Total	1488.27	1024.55	463.72
Less: Interest capitalized	0.00	64.63	-64.63
I&FC net of capitalization	1488.27	959.92	528.35

5.2.1 Basis of apportionment in accounts in respect of loans and interest. Hon Commission may kindly note that SBU wise interest as per accounts and as per filing format differ due to the basis for classification adopted. The basis adopted in apportioning loan and interest among SBUs in accounts are tabulated below:

Table-5.4 : Basis of apportionment of Loans and Interests (2016-17)

No	Institution	Loan Balance	Interest
A	**SECURED LOANS TERM LOANS**		
1	L I C	GFA+CWIP	GFA+CWIP
2	REC ON VARIOUS SCHEMES	GFA+CWIP	DISTRIBUTION
3	REC R-APDRP PART-B	GFA+CWIP	GFA+CWIP
4	R E C – RGGVY	DISTRIBUTION	GFA+CWIP
5	REC – Medium Term Loan	GFA+CWIP	DISTRIBUTION
6	PFC	GFA+CWIP	DISTRIBUTION
7	PFC R-APDRP	DISTRIBUTION	GFA+CWIP
8	SOUTH INDIAN BANK	GFA+CWIP	GFA+CWIP
9	PFC GEL KAKKAYAM	GFA+CWIP	GFA+CWIP
B	**UNSECURED LOANS TERM LOANS**		
1	State Bank of India	GFA+CWIP	GFA+CWIP
2	Vijaya Bank	GFA+CWIP	GFA+CWIP
3	South Indian Bank	GFA+CWIP	GFA+CWIP
4	Bank of India	GFA+CWIP	GFA+CWIP
5	Syndicate Bank	GFA+CWIP	GFA+CWIP
6	Tamil Nadu Mercantile Bank	GFA+CWIP	DISTRIBUTION
7	Indian Overseas Bank	GFA+CWIP	DISTRIBUTION
8	Andhara Bank	GFA+CWIP	DISTRIBUTION

5.2.2 Interest on loans: The actual interest paid on short and long term loans exceeded the sum approved by Rs.22.94 Cr. Hon Commission considered Rs.3753.14 Cr as outstanding loan as on 31.03.2016 and approved interest @11% for 2016-17. The outstanding loans as on 31.03.2017 were Rs.4266.57 Cr. Increase in interest is mainly attributable to the additional borrowings made during the year. A summary of source wise borrowings, repayments and interests are given in **Appendix – A20**. It may kindly be noted that KSEBL had executed capital works to the tune of Rs.1579.40 Cr during the year as detailed in **Appendix –A21**.

5.2.3 In this respect, the Hon 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. KSEBL has now shifted to availing long and medium term loans for this purpose to reduce the risk involved by restricting STL borrowings. Hon Commission may kindly note that KSEBL was able to secure STL at more favourable rates than those prevailed earlier and thereby reduced interest burden by Rs.37.37 Cr in comparison to 2015-16. A summary of Short Term loans are given in **Appendix-A22**. Thus interest on STL had been Rs.192.06 Cr compared to Rs. 229.43 Cr of previous year. The details are given in **Appendix-A23.**

5.2.4 Interest on Overdraft: Hon Commission as per order dated 07.04.2017 has decided that SBU D does not require any working capital and therefore no interest was approved on this count. But Hon Commission has not appraised the need for borrowing arising out of huge approved and un bridged revenue gap which could only be funded through borrowings. KSEBL had availed overdraft from banks to make up the shortages in cash flow in 2016-17 at an average level of Rs. 2406.49 Cr during the year and an interest of Rs. 248.94 Cr was paid on overdraft. The Table – 5.5 below depicts the matter in brief. The month wise details of OD availed from various financial institutions and its interest are marked as **Appendix-A24 and A25**.

Table 5.5 : Month wise overdraft balance (2016-17)

Month Beginning	Over Draft (Rs. Cr.)	Interest (Rs. Cr)	Month Beginning	Over Draft	Interest (Rs. Cr)
01.04.2016	2171.94	18.50	01.10.2016	2385.50	18.48
01.05.2016	2426.00	19.16	01.11.2016	2499.27	24.37
01.06.2016	2187.84	19.77	01.12.2016	2476.92	26.44
01.07.2016	2394.38	22.08	01.01.2017	2591.08	13.25
01.08.2016	2489.44	20.04	01.02.2017	2354.30	19.87
01.09.2016	2288.81	17.55	01.03.2017	2612.42	29.44
				Average	**248.94**

- It may kindly be noted that the borrowing had to be resorted to in order to make good the financial difficulties caused by unrecovered revenue gap of earlier years. It may be seen from the Table 5.6 below that there was a substantial approved, but un-bridged revenue gap of R**s. 3325.13** Cr as per orders of ARR till 2016-17. The corresponding trued up values till 2013-14 has been Rs.5452.15 Cr. The increase in approved gap till 2013-14 true up over ARR approval has been Rs.3006.42 Cr.

Table-5.6 : Un-bridged Revenue Gap till 31.03.2015				
Year	**Net Gap as per ARR orders**	**Net Gap as per true up orders**	**Subsequent rise in gap**	**Remarks**
Till 2010-11	424.11	424.11	0.00	True up order 2010-11 dated 30.11.2012.
Additional gap for 2009-10		107.90	107.90	Order dated 09.05.2017.
Additional gap for 2010-11		204.70	204.70	Order dated 19.05.2017.
ARR 2011-12	928.62	1386.97	458.35	True up order dated 16.03.2017.
ARR 2012-13	632.02	3132.97	2500.95	True up order dated 0.03.2017.
ARR 2013-14	460.98	195.50	-265.48	True up order dated 20.06.2017
Revenue gap till 31.03.2014	**2445.73**	**5452.15**	**3006.42**	
ARR 2014-15	479.28			Rs.1809.17 crore sought by KSEBL for truing up. Order not issued.
Suo motu order for 2016-17 & 2017-18	400.12			Order dated 17.04.2017.
Total	**3325.13**			

- Details of Net un-bridged revenue gap as per ARR orders are furnished in **Appendix-A26** and Comparison of the approved revenue gap and actual as per accounts **in Appendix-A27. Appendix-A28** gives comparison of approved and un bridged revenue gap as per ARR and True up orders. A substantial part of this Gap is caused by the high power purchase cost incurred in those periods.

- It may kindly be noted that the above wide revenue gap prevailed even after taking into account, the effect of tariff revision in those years. This huge un-bridged revenue deficit exerted considerable strain on the finances of KSEBL and to avoid a disastrous financial collapse, KSEBL had to avail OD from banks. *Thus the necessity average monthly over Draft borrowing Rs. 2200 Cr and corresponding interest of Rs. 248.94 Cr.* ***Hon Commission may please note that KSEB had not availed overdrafts corresponding to the un-bridged revenue gap prevailed in that year, but only a fraction of the gap amount was covered by availing overdraft, owing to the prudent financial management of KSEBL aimed just to tide over the difficulty****.*

- It is humbly submitted that as per numerous judgments Hon APTEL has decided that carrying cost is a legitimate claim of the utility and therefore the interest on overdraft actually incurred is eligible for pass through. Kind attention of the Hon Commission is invited to the following judgments in this regard: (a) Appeal No 1 and 19 of 2013 dated 10.11.2014 (KSEB VS KSERC) - State Commission to issue consequential orders in line with the judgment with carrying cost.(b) b. Appeal No 1 of 2011 dated 11.11.2011- Carrying cost is a legitimate expense of the utility. (c) Appeal No. 190 of 2011 dated 28.11.2013- Circumstances necessitating creation of regulatory asset. (d) Appeal No. 153 of 2009 dated 30.07.2010- Components of regulatory asset. (e) Appeal 160 of 2012 and batch dated 08.04.2015- Principles based on which carrying cost to be allowed.

- In view of the above submission, actual interest on overdraft amounting to Rs.248.94 Cr may be approved in full.

5.2.5 Interest on security deposit: Hon Commission considered security deposit from consumers amounting to Rs.2145 Cr and Rs.2315 Cr respectively as on 01.04.2016 and 31.03.2017 and ascertained the quantum of interest due for 2016-17 at Rs.171.60 Cr. However the amount approved towards interest for the year was Rs.120.12 Cr only being 70% of the ascertained value as decided here under:

4.31 Hitherto, while approving the ARR, the Commission has been providing interest on the outstanding security deposit at the beginning of each financial year, as claimed by KSEB Ltd. However, as per the applications for approval of truing up of accounts, it is seen that, the actual disbursement on interest on security deposit was less by 30% than the same claimed by KSEB Ltd. Considering this fact, the Commission estimates interest only on 70% of the outstanding security deposit claimed by KSEB Ltd. The Commission reiterates that, the actual interest on security deposit provided to the consumers as per the Regulation-72 of the Kerala Electricity Supply Code, 2014 only approved while truing up of accounts for the year 2016-17 and 2017-18.

5.2.6 It is respectfully submitted that the reason for variation cited had occurred due to the accounting based on accrual concept and change in rate of interest and this fact already been explained by KSEBL. The Actual Security Deposit balance as per accounts was **Rs. 2287.32 Cr** at the beginning of the year (31-3-2016) on which the interest at 7.75 % was provided in FY 2016-17 **(Rs 177.27 Cr)**. However, the actual sum disbursed in the FY 2016-17 was against the provision made for FY 2015-16 (Rs 167.90 Cr) at 8.5 % on SD balance as on 31-03-2015. (Rs. 1975.31 Cr) was Rs 163. 56 Cr. Hon Commission may please approve the actual disbursement made in FY 2016-17.

5.2.7 Interest on PF: Hon Commission approved Rs 131.24 Cr towards interest on PF. But as per the audited accounts, the actual interest paid on PF was Rs.143.45 Cr, which exceeded approval by Rs.12.21 Cr. Hon Commission adopted Rs.1500 Cr and Rs.1600 Cr respectively as PF balance as on 01.04.2016 and 31.03.2017 and applied interest @ 8.75%. However, PF balance exceeded Rs.2000 Cr as on 31.03.2017 owing to pay revision arrears get credited to PF account of employees. The actual rate of interest, however, was lower than approval at 8.1% and later on came down to 8% during the year. As per order, the approved interest on PF was apportioned among SBUs at the employee ratio. But as per trifurcated accounts, entire interest has inadvertently been shown under SBU D. The actual interest as per the audited accounts may kindly be approved.

5.2.8 Interest on Master Trust Bonds: Hon Commission approved Rs.814.44 Cr towards interest on Master Trust bonds. Even though the Trust was registered on 12.02.2015, KSEBL could not issue Bonds to the Master Trust and make it fully functional during the year 2016-17 due to non receipt of approval from the Commissioner of Income Tax. Without the department approval the cash flows to the Trust would have been affected due to income tax issues leaving it not in a position to fulfil its obligations. Therefore, KSEBL had pursued the matter with the income tax department all along and succeeded in obtaining recognition of the Trust from the Income tax Department on 08.09.2016. The issue of Bonds to the Master Trust as envisaged in the Transfer scheme has since been made and the scheme has been made fully operational from 01.04.2017. It is humbly submitted that various issues involved in the process have already been appraised before the Hon Commission. The delay in operationalization of Master Trust was beyond the control of KSEBL. In view of the above submission' Hon Commission may kindly true up terminal benefits actually disbursed during the year under employee cost.

5.2.9 KSEBL has already appraised this issue before the Hon Commission and as per order dated 17.04.2017 Commission has deliberated the issue and decided ion the following lines:

12.70 Regarding the interest on bonds issued to Master Trust, KSEB Ltd submitted as follows,
"Liability towards terminal benefits is a firm liability and KSEB LTD cannot deny it. It is humbly submitted that the normative values determined by the Hon Commission for the allowance of O&M expenses does not factor terminal liabilities of KSEB LTD. Hence denial of interest on Master Trust Bonds, without any allowance under O&M expenses, will put KSEB LTD in a precarious position of not being able to pay off pension and other benefits to the retired employees. Since the O&M norms does not cover the terminal benefits, the cash flow for the same can only be ensured through pass through of interest charges of the proposed bonds. The Commission is already seized of the circumstances that lead to delay in issue of bonds, like probable income tax liability on the master trust for the interest income which ultimately will be loaded to the consumers. Now the issues have been settled and KSEB LTD will issue the bonds immediately."

Decision of the Commission.

12.71 Pension of the retired employees is their vested right and therefore it cannot be denied. Government has, as a part of the Second Transfer Scheme issued under Section 131 of the Act, decided to constitute a Master Trust for facilitating payment of pension to the retired employees of KSEB Ltd. The constitution of Master Trust is only a strategic decision to absolve KSEB Ltd from the direct responsibility of payment of pension to the employees of its predecessor in interest namely, Kerala State Electricity Board. The transfer of fund to the Master Trust has been delayed by KSEB Ltd in view of the problems relating to getting exemption for the Master Trust from payment of Income Tax. If funds are transferred to Master Trust before getting exemption from payment of Income Tax, about 35% of the amount would be payable as Income Tax. Taxes, being inevitable and uncontrollable item of expenditure, will have to be allowed to pass on to the consumers by way of tariff. This will further increase the burden of consumers. Therefore, the Commission has decided to accept the submissions made by KSEB Ltd in this regard and to approve the amount of pension paid to the retired employees of KSEB.

5.2.10 Terminal Liabilities and Pension: 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 2016-17 amounting to Rs.1207.22 Cr. This liability had not been factored in the approval, considering Master Trust formation would be materialized and that these liabilities would be transferred to that trust. However, Master Trust Bonds could not be formulated in that year because of the income tax liability issue submitted earlier. These benefits therefore have been paid directly to employees. Thus the amount has been reflected in the Final Accounts and this truing up petition.

5.2.11 Other charges: Hon Commission approved Rs.10 Cr towards other interest, against which Rs.17.62 Cr was actually incurred. Other interest exceeded approval by Rs.7.62 Cr. As per audit observation, an amount of Rs. 16.76 Cr incurred towards interest on power purchase bills has been classified under this head. It may kindly be noted that these bills were raised in line with tariff revision ordered by CERC for the control period 2014-19 and the payment is strictly in line with CERC regulations. Other bank charges KSEBL has been reducing the bank charges consistently through negotiations with banks. It may kindly be noted that in the IND AS audited accounts, bank charges amounting to Rs.1.07 Cr has been disclosed under A&G expenses. The actual expenses under other charges were Rs.0.86 Cr including guarantee charges payable to Government. The actual expenses including bank charges may kindly be approved.

5.3 Depreciation: Hon Commission may kindly note that the depreciation as per audited accounts of Rs.718.88 Cr. has been worked out in line with IND AS at the CERC rates. Further, a sum of Rs.414.82 Cr lying under CWIP were capitalized as detailed below:

(i) Capitalization of expenses is carried out in books after the preparation of CRCS (Completion Report cum Capitalization Sheet) with regard to the project and the delay in preparation of CRCS is the reason for not transferring the project cost from CWIP to fixed assets.

(ii) During the course of audit for 2016-17, detailed examination of CWIP balances were carried out and completed works lying under CWIP were identified. Accordingly, a sum of Rs.414.82 Cr has been capitalized in line with the first time adoption of Indian Accounting Standards (IND AS 101). Year wise details are summarized below:

Table -5.7 : Gross Fixed Assets (Rs. in Cr)

Year	Audited Accounts			Ind AS Accounts			
	Opening Balance	During the year	Closing Balance	Opening Balance	During the year	Closing Balance	Difference
2014-15	25480.05	1127.99	26608.04	0.00	0.00	26809.44	201.40
2015-16	26608.04	738.44	27346.48	26809.44	1021.17	27629.21	282.73
2016-17	27346.48	0.00	28700.31	27629.22	1485.92	29115.15	414.82

(iii) Asset category wise details are furnished below:

Table 5.8 : Asset details

Item	Depr Rate	31-03-15			31-03-16			31-03-17		
		As per IGAAP	As per Ind As	Addition	As per IGAAP	As per Ind As	Addition	As per IGAAP	As per Ind As	Addition
Land & Land Rights		1,692.61	1,673.79	-18.82	1,732.06	1,712.18	-19.88	1,773.32	1,773.45	0.13
Buildings	3.34	666.52	667.47	0.95	676.96	679.91	2.95	710.41	787.38	76.97
Hydraulic Works	5.28	1,164.02	1,164.02	-	1,170.40	1,171.03	0.63	1,322.05	1,330.76	8.71
Other Civil Works	3.34	482.82	483.29	0.47	511.87	514.75	2.87	589.53	592.41	2.88
Plant & Machinery	5.28/6.33	15,625.23	15,810.80	185.57	15,781.39	15,991.01	209.62	16,031.01	16,341.08	310.07
Lines, Cable, Network	5.28	6,836.91	6,870.05	33.14	7,322.61	7,408.44	85.83	8,083.49	8,097.46	13.97
Vehicles	9.5	18.97	18.97	-0.00	20.37	20.80	0.43	21.80	22.23	0.43
Furniture & Fixtures	6.33	29.76	29.81	0.05	31.91	32.00	0.10	38.75	40.31	1.56
Office Equipments	6.33/15	91.21	91.23	0.02	98.91	99.09	0.18	129.96	130.06	0.10
TOTAL		**26,608.04**	**26,809.43**	**201.40**	**27,346.48**	**27,629.21**	**282.73**	**28,700.31**	**29,115.13**	**414.82**

(iv) Hon Commission, in the suo motu order approved a sum of Rs.601.17 Cr by applying the following methodology adopted in 2014-15 ARR order:

(i) GFA value as on 01.04.2014 had been segregated to assets less than 12 years and more than 12 years old. Depreciation @ 4.99% and 3.26% respectively were applied to determine depreciation at Rs. 601.17 Cr.

(ii) The sum was reduced further by Rs.186.37 Cr (determined at average rate of depreciation @ 4.38% on Consumer contribution and grants of Rs.4251.07 Cr till 31.03.2014) towards Consumer contribution and grants.

(iii) The net depreciation of Rs. 414.80 Cr (Rs.601.17 Cr minus Rs.186.37 Cr) was allocated among SBUs in GFA ratio as on 31.10.2013.

(iv) Hon Commission did not consider addition to fixed assets for the years 2014-15 and 2015-16 for the purpose.

As already submitted, depreciation as per accounts has been worked out in line with IND AS at Rs.718.88 Cr after considering GFA addition made till 31.03.2017 along with Rs.414.82 Cr GFA addition mentioned earlier. From this amount, claw back was determined at Rs.77.10 Cr and credited to Claw back of grant under Note 33 (Changes in fair valuation and adjustments). While nullifying Rs.45.33 Cr already clawed back as per I GAAP accounts, the debit entry was inadvertently made to Claw back of grant (Note 33) instead of miscellaneous income head and therefore the balance appearing under Note 33 amounted to Rs.31.77 Cr instead of Rs.77.10 Cr.

As per MYT Regulation for the control period 2016-18, depreciation is allowable as per the provisions contained in the Tariff Regulations, 2014 in which applicable rates as well as methodology specified therein. Accordingly, allowable depreciation has been worked out at **Rs. 617.51 Cr** as detailed below:

Table 5.9 : Depreciation Calculation (Rs Cr)			
No	**Particulars**	**Amount**	**Total**
1	GFA as on 31.03.2016		
2	Balance as on 31.03.2016	27346.5	
3	Less: Enhancement in value while re vesting	**11,988.98**	
4	GFA excluding enhancement in value(=2-3)	15,357.52	
5	GFA as on 31.03.2004	6558.55	
6	Average depreciation	3.26%	
7	Depreciation on assets existing prior to 01.04.2004 (=5x6)		213.81
8	GFA after 01.04.2004 =(4-5)	8,798.97	
9	Average rate of depreciation	4.99%	
10	Depreciation on assets added after 01.04.2004=(8*9)		439.07
11	**Total depreciation=(7+10)**		**652.88**
12	Average rate of depreciation=(11/4*100)	4.25	
13	Contribution and grants till 31.03.2016	832.06	
14	Depreciation for assets created out of Grants=(13*12)		35.36
15	**Allowable depreciation(=11-14)**		**617.51**

The depreciation so arrived at is apportioned among SBUs in the opening GFA (31.03.2016) ratio for SBU G and SBU T and excluding consumer contribution for SBU D as detailed below:

Table 5.9 : Apportionment of Depreciation (Rs Cr)			
SBU	**GFA as on 31.03.2016***	**% of GFA**	**Depreciation**
SBU G	4440.85	30.57	188.79
SBU T	4309.46	29.67	183.20
SBU D	5775.14	39.76	245.51
Total	14525.45	100	617.51
**excluding value enhancement*			

Hon Commission may kindly consider depreciation of Rs.617.51 Cr determined after clawing back Rs. 35.36 Cr towards consumer contribution and grants. Detailed depreciation is given in **Appendix-A29 and A30.** Function wise break up of depreciation is furnished below:

Table 5.10 : Break-up of Depreciation (Rs Cr)		
1	SBU G	188.79
2	SBU T	183.20
3	SBU D	245.51
4	Depreciation after claw back	617.51

The reason for variation in depreciation is mainly due to GFA addition in 2 years and the impact of 90% depreciated assets.

5.4 Contribution and Grants: Details of Consumer Contribution and grants as on 31.03.2017 amounted to Rs.1429.22 Cr as detailed below:

Table-5.11 : Details of consumer contribution and grants (Rs. Cr)			
No	**Particulars**	**Amount**	**Amount**
1	Consumer contribution	957.49	
2	Grant and subsidy	367.06	
3	Local bodies etc	180.85	
4	Concessional loan treated as grant (As per IND AS)	55.69	
5	De commissioning liability (IND AS)	18.38	1579.47
6	Less: Clawed back		
7	2013-14	9.12	
8	2014-15	24.65	
9	2015-16	39.39	
10	2016-17	77.10	150.25
11	Contribution and grants (Note 18) as per Accounts.		1429.22

Hon Commission may kindly note that decommissioning liability and concessional loan considered under this head does not involve cash flow.

5.5 Changes in fair valuation as per Note 33 of audited accounts. An income of Rs.65.66 Cr has been disclosed under this head. Accordingly, while preparing this petition, KSEBL considered this income along with other debits and prior period expenses/income. Hence it may kindly be noted that the expenses are understated to the tune of Rs.65.66 Cr. Income under this head comprises of income on account of fair valuation adjustments (FVA) (Rs. 33.90 Cr) and Claw back of grant (Rs. 31.77 Cr). Claw back of grant has already been explained in preceding paragraph. Details in respect of income on account of fair valuation charges are furnished below:

Table-5.12 : Fair Valuation Changes			
Debit	**Credit**	**Rs. CR**	**Description**
FVA A/c	Grant A/c	-10.08	Fair value of grant is higher than the carrying amount, hence the difference would be debited in the FVA A/c
Interest A/c	FVA A/C	33.35	Fair value amount is higher than the actual interest rate, so the difference is debited to the profit and loss account through FVA A/c

Interest A/c	FVA A/C	0.37	Difference between the fair value of interest (on the loans discounted @ IRR) and actual interest is adjusted in the profit and loss account.
Interest A/c	FVA A/C	0.01	Fair value amount is higher than the actual interest rate, so the difference is debited to the profit and loss account through FVA A/c (for Loan Advanced by KSEB)
Loan A/c	FVA A/C	10.25	Fair value of loan is lesser than the carrying amount, hence the difference is credited through FVA A/c
	TOTAL	**33.90**	

Hon Commission may kindly note that adjustments totalling to Rs.33.73 Cr has been made against Interest account and Fair value adjustment account. Since both these heads are charged off to P&L account, there is no impact on the profit or loss for the year 2016-17. But, a net income of Rs.0.17 Cr resulted from the transactions relating to grants with corresponding debit (net) to grant account. In short, the actual impact on P&L account is only to the extent of Rs.0.17 Cr on account of fair valuation.

However, Hon Commission may kindly note that the claw back of grant to the tune of Rs.31.77 Cr has been considered as income in audited accounts. Since Hon Commission disallows depreciation (applicable on contribution and grants) from depreciation itself, this income of Rs.31.77 Cr is not considered in this petition.

Hon Commission may kindly note that income under FVA to the tune of Rs.33.89 is considered as a reduction under other expenses and therefore, inclusion of the same under interest and finance charges does not make any impact on revenue gap.

5.6 Other Expenses: Other expenses include other debits and prior period charges. The comparison of other debits estimated in the ARR and actual expenses as per the audited accounts are given below.

Table-5.13 : Other Debits (Rs Cr)

No	Particulars	Approval	Actual	Difference
1	Research and Development Expenses		0.20	0.20
2	Provision for Bad and Doubtful debts		8.54	8.54
3	Miscellaneous Losses and write-offs		15.55	15.55
4	Loss on account of flood and cyclone		0.02	0.02
5	Material cost variance		64.32	64.32
6	**Total**	**0.00**	**88.63**	**88.63**

Now, **Bad and doubtful debts written off/ provided** for represent withdrawal of credits to revenue in earlier years. The **miscellaneous losses and write-offs** represent the total compensation paid for injuries, death and danger to staff and outsiders. **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 are first accounted as per the standard rates and subsequently difference between the actual and standards are accounted under material cost variance. Net debit balance in Reserve for material cost variance account arising as a result of valuation of materials under standard rate system is charged off to revenue account in compliance with the procedure cited above. In other words, the difference between material cost actually incurred and material cost charged to works at standard rate are accumulated under Reserve for Material Cost Variance account. Hence, the amount shown as expense in 2014-15 is the debit balance in Reserve for material cost variance account arose due to variation in material cost over and above the cost of material priced at standard rate. Hon Commission may kindly approve the material cost variance as per the audited accounts.

5.7 Prior period credit/ charges: Prior period charges include both income as well as expenses relating to earlier years. During the year, prior period income and expenses amounted to Rs. 26.15 Cr and Rs.21.16 Cr respectively; resulting in net prior period income of **Rs.4.99 Cr**. Hon Commission has not approved any amount in ARR towards Prior period expenses. It is the considered position of the Hon Commission that prior period charges could be covered in the truing up exercise. The same may be admitted as detailed above.

In this regard, it may pleas be noted that, as per the truing up petition, KSEBL has claimed the prior period income of Rs.4.99 Cr under various SBUs as shown in the table below:

Table-5.14 : Prior Period Charges (Rs Cr)

Particulars	Prior period expenses	Prior period income	Total
1	2	3	4
SBU G	41.76	0.00	41.76
SBU T	74.83	0.00	74.83
SBU D	0.00	121.58	-121.58
Total	**116.59**	**121.58**	**-4.99**

However, the pay revision due from July/ August 2013 was disbursed during 2016-17 for which provision was created in accounts as on 31.03.2016. As per the accounting instructions, ARUs are to book pay revision arrears under prior period expenses and the reversal of the same against provision already created is made at Head Office. This accounting treatment was duly carried out. But, while segregating function wise prior period expenses and income, entire amount of pay revision provision reversed was inadvertently shown under SBU D. This has resulted in net prior period expenses under SBU G and SBU T whereas SBU D disclosed prior period income owing to reversal in excess of actual pay revision dues, which were applicable to SBU G and SBU T.

Table-5.15 : Business Unit wise Prior period Charges

Particulars	SBU G	SBU T	SBU D	TOTAL
Net Prior period expenses	41.76	74.83	465.89	582.48
Less: Pay revision provision and Prior period income	0.00	0.00	-587.47	-587.47
Net expenses (income) relating to prior periods	41.76	74.83	-121.58	-4.99

Therefore, in view of the above submission, Hon Commission may be please true up prior period income (net) of KSEBL amounting to Rs. 4.99 Cr by approving relevant claims made under SBU G, SBU T and SBU D.

5.8 O&M Expenses: The business activity of KSEBL has been continuously increasing over several decades. The business growth on account of number of consumers, their electricity requirement and fixed assets during last 10 years**.** It may be kindly noted that average annual growth during the period has been 3.65%, 7.56% and 9.61% respectively. Correspondingly the physical assets of KSEBL have also increased substantially. The number of employees for maintaining the asset, and provide quality supply to consumers have also increased. The increase in employees is primarily in Technical areas. it may be seen that the more than 90% increase in number of employees is because of the increase in technical employees, in turn essential to maintain the asset and provide quality supply.

In the matter of actual employee cost of KSEBL, following are submitted:
The employee cost of KSEBL includes basic salary, DA and other benefits for serving employees and pensioners, terminal benefits etc for retired employees. Employees of KSEBL are recruited through PSC and salary and other benefits including earned leave surrender etc. are provided as per the wage settlement agreement entered into with the trade unions. As per the agreement DA has to be released as and when the same was released by the State Government to its employees, pension and other benefits as per the rules in force and also as per the directions of court of law.

In this context, kind attention of the Hon Commission is invited to the extracts from Judgment issued by Supreme Court of India on 3rd October 2002 in the case of West Bengal Electricity Regulatory Commission vs CESC Limited that "***Therefore, during the pendency of these agreements, it was legally not possible for the Company to stop these payments. Therefore, the amounts spent towards this purpose namely, towards the employees' cost should not be treated as the amounts not properly incurred."***

It is clear from this judgment that KSEBL is not in a position to curtail employee expenses incurred under lawful agreement entered into with workmen. Through the second transfer scheme the Government has transferred the entire employees of the erstwhile KSEB to the rolls of the appellant and the appellant has become statutorily bound to bear the cost related to all such employees in view of Section 133 of the Electricity Act, 2003 which mandates that the terms and conditions of transfer of employees after re vesting shall not in any way be less favourable than those which would have been applicable to them if there has been no such transfer as per the transfer scheme.

KSEBL humbly submits that, since it has to provide annual increment to the officers and workmen category as per the wage settlement agreement entered into between KSEBL and Trade Unions and since the same position was upheld by the Hon ATPEL in judgment dated 27.04.2016, actual basic pay as per accounts may kindly be seen as expense that cannot be curtailed in short term.

KSEBL may further submit that, as a distribution utility, STU and the generator of the State, KSEBL was constrained to engage additional employees to provide service connections and maintaining quality supply, in addition to the capital investments in generation, transmission and distribution. However, the increase was mainly on the technical staff including lineman, electricity worker, overseer, Sub Engineer etc associated with the distribution of electricity, which account for more than 91% of the increase in staff strength over 2009.

Considering the fact that, KSEBL has to release the DA to its employees as and when the DA is allowed to the employees of the State Government, the Hon Commission vide the letter No. 1235/ARR&ERC 10-11/KSERC /2010 dated 28th July-2010 addressed to KSEB that DA/DR may be released without reference to the Commission.

Actual R&M expenses increased by just 2.07% over 2015-16 expenses (Rs.259.75 Cr) and very much within inflation levels. Hon Commission may therefore consider that physical addition to major fixed assets during the period from 2006-07 to 2015-16 clearly reveals that there has been substantial addition over the period. Ten new hydroelectric stations were commissioned between FY 2009-10 and FY 2015-16. There were additions in Transmission and Distribution network corresponding to KSEBL business growth.

It may kindly be seen that substantial portion of expenses was incurred under Line, cable network etc and plant and machinery. Further, expenses under line, cable network has incurred mainly under distribution SBU and repairs to plant and machinery under Transmission and Generation. This is due to the care and efforts taken by the Board to maintain the LT network and lined and substations- 33kV, 66kV, 110 kV and 220 KV. Expenses incurred under Lines, Cable net works are substantially (98%) incurred under Distribution functional area. These additions were required to provide supply to consumer in compliance of the KSERC Licensees (Standards of performance) Regulations and to cater new consumers. (About 3.00 Lakh new consumers were added in that year)

The R&M cost is depends on the Gross Fixed Assets in use at the beginning of the financial year, age of the assets as well as inflation. While approving the R&M expenses as per the orders on ARR, Hon Commission has not allowed the R&M cost for the assets created after the year 2008-09. Physical addition to major fixed assets during the period from 2008-09 to 2016-17 is summarized below.

Table-5.16 : Physical addition to major fixed assets during 2008-09 to 2016-17

Year	Distribution Transformers	220 KV Lines	110 KV Lines	66 KV Lines	33 KV Lines	11&22 KV Lines	LT Lines	EHT S/s	33 KV S/s	Step up Transformers	Step down Transformers
	Nos	KMs	KMs	KMs	KMs	KMs	KMs	Nos	Nos	MVA	MVA
2008-09	46359	2641.86	4067.59	2161.91	1184.78	41440	241849	218	89	2465.6	14631
2016-17	75579	2801.89	4418.87	2156.27	1902.43	59496	291328	258	144	2699.05	19143
Change(%)	63.03	6.06	8.64		60.57	43.57	20.46	18.35	61.80	9.87	30.84

The growth of consumer strength; annual energy consumption and gross fixed assets addition etc when compared to 2008-09 values are given in the following tables:

Table-5.17 : Consumer strength -Growth from 2008 to 2017			
No	Consumer strength	Numbers (Lakhs)	% increase over 31-03-2008
1	Number of consumers as on 31-03-2008	90.30	
2	Number of consumers as on 31-03-2017	119.95	32.83

Table-5.18 Energy sales- Growth from 2008 to 2017			
No	Energy sales	Energy sale (MU)	% increase over 31-03-2008
1	Total energy sale as on 31-03-2008	12049.90	
2	Total energy sale as on 31-03-2017	20038.25	66.29

Table-5.19 : Fixed Assets added from 2008 to 2017			
No	Details of Gross Fixed Assets	Amount (Rs. Cr)	% increase over 31-03-2008
1	Gross Fixed asset as on 31-03-2008	8684.55	
2	Gross Fixed asset as on 31-03-2017	17126.17	97.20

5.9 Non- Tariff Income: Hon Commission approved Rs.441 Cr under Non Tariff income for the year. Actual income earned under this count as per accounts amounted to Rs.582.84 Cr. Hon Commission may kindly note that the disclosure in accounts and truing up petition with regard to non tariff income differ from the audited accounts 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 are included under non tariff income. Out of Rs.582.84 Cr, remaining Rs.400.78 Cr is disclosed under other operating income and other income as per Note 24.a and 24.b of audited accounts. A reconciliation statement is furnished below:

Table- 5.20 : Non _Tariff Income	
Description	**Rs. Cr**
Revenue from operations Note 23.	
Reactive energy charges	5.44
Meter rent/ Service line rental	92.04
Wheeling charges recoveries	0.4
Misc charges from consumers	84.18
Subtotal A	**182.06**
Other operating income Note No. 24.a	
Rebate received	142.46
Interest from suppliers/contractors	0.85
Income from sale of scrap/Tender form	78.85
Miscellaneous receipts	170.96
Subtotal B	**393.12**
Other income Note No.24.b	
Interest on staff loans and advances	0.22
Income from loans others	0.24
Interest from banks	7.19
Subtotal C	**7.65**
Non tariff income as per True up petition (A+B+C)	**582.84**

Miscellaneous charges from consumers are detailed in **Appendix 31.** Miscellaneous receipts are detailed in **Appendix 32.** Income from sale of scrap/tender form amounting to Rs.78.85 Cr as detailed in **Appendix 33** includes Rs.45.94 Cr towards sale proceeds of LED bulbs. It is humbly submitted that the cost of LED bulbs amounting to Rs.23.59 Cr has been accounted under A&G expenses. Further, Hon Commission may kindly note that a sum of Rs.45.33 Cr towards claw back depreciation (I GAAP) pertaining to the assets created out of Contributions and grants was included under miscellaneous receipts.

While approving Non-Tariff Income, Hon Commission may kindly consider net income from the distribution of LED bulbs amounting to Rs. 33.35 Cr (Rs.45.94 Cr – Rs.23.59 Cr) under sale of scrap etc and exclude claw-back depreciation of Rs. 45.33 Cr from miscellaneous receipts.

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

Appendix-5.1 : Source wise details of loans availed during the year 2016-17 (Rs. Cr)								
NO.	Name of Firm	Loan as on 31-03-16	Loan Received (2016-17)	Loan Repaid (2016-17)	Loan as on 31-03-17	IND AS adjustment	Net Loan 31.03.17	Interest
1	L I C	6.00	0.00	2.00	4.00	2.00	2.00	0.41
2	REC ON VARIOUS SCHEMES	841.01	1401.17	52.09	2190.28	175.59	2014.49	102.05
3	REC R-APDRP PART-B	318.30	142.69	0.00	460.99	74.73	386.26	42.69
4	R E C - RGGVY	14.12	4.77	1.21	17.68	3.41	14.27	1.86
5	LOAN FROM REC FOR THE DDG SCHEME	0.00	0.14	0.00	0.14	0.00	0.13	0.01
6	REC - Medium Term Loan	133.33	0.00	133.33	0.00	0.00	0.00	3.58
7	PFC	190.78	1250.16	0.00	1440.93	5.41	1435.53	22.39
8	PFC R-APDRP	251.00	40.26	0.40	290.86	0.00	290.86	25.08
9	DAM REHABILITATION AND IMPROOVEMENT PROJECT(DRIP)	0.00	8.60	0.00	9.10	0.00	8.60	
10	SOUTH INDIAN BANK	90.00	0.00	0.00	90.00	4.88	85.13	9.00
11	LOAN FROM RIDF OF NABARD	0.00	0.45	0.00	0.45	0.00	0.45	
12	PFC GEL	8.97	23.53	0.00	32.50	3.64	28.85	2.92
	SUB-TOTAL	1853.51	2871.76	189.03	4536.92	269.67	4266.57	209.99
B	UNSECURED LOANS TERM LOANS							
	From Banks							
1	State Bank of India	750.00	0.00	250.00	500.00	0.00	500.00	69.45
2	Vijaya Bank	200.00	400.00	400.00	200.00	0.00	200.00	18.85
3	South Indian Bank	100.00	400.00	300.00	200.00	0.00	200.00	17.92
4	Bank of India	450.00	975.00	1037.50	387.50	0.00	387.50	44.49
5	Syndicate Bank	100.00	0.00	100.00	0.00	0.00	0.00	2.39
6	Andhara Bank	300.00	1100.00	800.00	600.00	0.00	600.00	38.97
	SUB-TOTAL	1900.00	2875.00	2887.50	1887.50	0.00	1887.50	192.07
	Fair value adjustments							33.73
	TOTAL	**3753.51**	**5746.76**	**3076.53**	**6424.42**	**269.67**	**6154.07**	**435.79**
Rs.4266.57 crore under Note 15 and 1887.50 Cr under note 19.								

Appendix 5.2: PROJECT WISE ANALYSIS OF CAPITAL EXPENDITURE FOR THE YEAR ENDED 31/03/2017 (Rs. Cr)					
Project Code	**Brief Description of Project**	**Total Cost as on 01.04.16**	**Cost Incurred**	**Capitalized**	**Total cost up to the end of 31.03.17**
A	**GENERATION**				
14.02	Idamalayar H E Project	0.00	0.59	0.59	**0.00**
14.03	Solar Power Project.	0.00	34.05	24.66	**9.39**
14.04	Silent Valley	3.30	0.00	3.30	**0.00**
14.05	Deen Dayal Upadhyay Gram Jyothi Yojana (DDU GJY)	0.18	16.31	14.01	**2.48**
14.06	Local Area Power Development Scheme (LAPDS)	0.00	0.07	0.07	**0.00**
14.08	LNG based Thermal power scheme	2.45	0.32	0.00	**2.78**
14.10	Kuttiadi Augmentation Scheme	0.00	0.21	0.21	**0.00**
14.11	Kallada Low Head Scheme	0.02	0.00	0.00	**0.02**
14.12	Bhoothathankettu Small H.E Scheme	16.46	36.66	0.00	**53.13**
14.13	Integrated Power Development Scheme (IPDS)	0.00	15.62	15.03	**0.59**
14.14	Mananthavady Multi Purpose Scheme	2.69	0.00	0.00	**2.69**
14.15	Olikkal Small H.E Scheme	2.92	3.65	3.01	**3.56**
14.16	Lower Periyar Tunnel Works - Other than W B Aided Works	0.18	0.01	0.19	**0.00**
14.19	Uppen sengulam Hp	2.29	1.35	0.00	**3.64**
14.20	Western Kallar SHP	0.00	0.01	0.01	**0.00**
14.21	Malampuzha Power Gen. Scheme	0.00	0.08	0.08	**0.00**
14.25	RMU SHOLAYAR	0.00	2.03	0.08	**1.95**
14.26	Kerala Power Improvement Scheme (KPIS)	0.04	2.58	2.58	**0.04**
14.27	Chimoney Small H E Scheme	20.02	4.89	24.90	**0.00**
14.28	Poringalkuthu Left Bank Diversion Scheme	0.01	0.00	0.00	**0.01**
14.29	Kuttiar Diversion Scheme	0.00	0.18	0.18	**0.00**
14.32	Poringalkuthu Left Bank H E Project Extension Scheme	0.03	0.05	0.05	**0.03**
14.35	Vadakkepuzha Diversion Scheme	0.00	0.19	0.19	**0.00**
14.36	Anakkayam Small HE Scheme	8.03	0.19	0.00	**8.22**
14.37	Onipuzha Mini HE Scheme	0.00	0.00	0.00	**0.00**
14.38	Wanchiyam Small HE Scheme	0.02	0.00	0.00	**0.02**
14.39	Chathankottu Nada Small HE Scheme	15.44	4.30	0.00	**19.74**
14.40	DRIP Project	11.78	32.47	0.00	**44.25**
14.41	Renovation Division for Idukki H.E.P.	0.00	0.26	0.26	**0.00**
14.42	Valanthode SHEP	0.00	2.58	0.00	**2.58**
14.44	Sengulam Augmentation Scheme	42.62	7.40	0.00	**50.02**
14.45	Athirapally H E Project	13.24	0.34	0.00	**13.58**
14.47	Urumi Mini H E Project I	0.00	0.03	0.03	**0.00**

14.48	Urumi Mini H E Project II	0.00	0.14	0.14	**0.00**
14.49	Poovaramthode Small H.E Scheme	2.27	4.16	0.99	**5.44**
14.64	MARMALA SHEP	0.00	1.09	1.02	**0.07**
14.65	Kuttiadi Small Hydro Electric Project	17.96	6.04	0.02	**23.97**
14.66	Upper Kallar HE Scheme	6.93	2.63	0.00	**9.56**
14.68	Peechad Small Hydro Electic project	0.06	0.00	0.00	**0.06**
14.69	RMU-Porinngalkuthu	0.00	7.56	2.03	**5.52**
14.70	Vakkalar Hydro Electric Project	0.06	0.00	0.00	**0.06**
14.71	Peruvannamuzhi Small Hydro Electric Project	3.47	5.86	2.23	**7.11**
14.72	Chembukadavu III Small H.E Scheme	2.94	3.94	2.67	**4.21**
14.73	Sengulam Tail Race Hydro Electric Scheme	30.16	6.82	36.98	**0.00**
14.74	Chinnar HES	3.17	4.24	3.15	**4.26**
14.75	Pazhassi Sagar Small H.E Scheme	1.22	2.80	0.00	**4.03**
14.76	Adyanpara Small Hydro Electric Project	34.31	10.52	40.25	**4.57**
14.77	Pallivasal Extension Scheme	220.68	9.71	0.01	**230.38**
14.78	Barapole S.H. Scheme	127.17	11.44	135.88	**2.73**
14.79	Mangulam Hydroelectric Scheme	15.28	19.67	16.33	**18.61**
14.80	Achencoil SHEP	4.08	0.22	0.00	**4.31**
14.83	Peechi SHEP	0.00	0.01	0.01	**0.00**
14.84	Maripuzha SHEP(2 X 3 MW)	0.00	0.00	0.00	**0.00**
14.85	Bhramapuram D P P	0.00	0.23	0.23	**0.00**
14.86	120 MW DGPP Kozhikode	0.00	9.32	9.32	**0.00**
14.88	Kuttiady Addl. Extention Scheme	16.46	0.03	16.49	**0.00**
14.89	LADRUM SHEP	0.09	0.97	1.02	**0.05**
14.90	CWIP - General	341.43	-256.14	-16.61	**101.90**
14.92	RMU of Sabarigiri HE Project	6.64	92.71	99.35	**0.00**
14.93	Vilangad Small Hydro Project	0.08	0.69	0.68	**0.09**
14.95	Perunthenaruvi- SHE scheme	32.18	20.60	5.23	**47.55**
14.96	Thottiyar HES	80.56	10.95	0.00	**91.50**
14.97	CWIP - Closed Projects	0.04	3.33	3.34	**0.03**
14.98	Poringalkuthu Addl.Extn. Scheme	23.13	30.59	0.00	**53.72**
	SUB TOTAL (A)	**1,112.10**	**176.56**	**450.22**	**838.44**
B	**TRANSMISSION LINES & SUB STATIONS**				
14.01	Electrical Transmission Schemes	333.76	343.73	438.20	**239.30**
14.18	Power System Development Fund	0.14	38.14	24.80	**13.48**
14.22	SCADA Upgradation Project	6.52	2.19	0.05	**8.65**
14.56	Load Despatch & Communication Schemes	1.58	6.93	6.03	**2.49**
14.90	CWIP - General	153.71	-111.01	-58.88	**101.58**
14.94	TRANSGRID 2.0 PROJECT	0.00	0.05	0.00	**0.05**
	SUB TOTAL (B)	**495.70**	**280.04**	**410.19**	**365.55**

C	**DISTRIBUTION**				
14.50	Rural Electrification Scheme	0.00	0.27	0.26	**0.00**
14.51	Distribution Line Extension	2.43	97.47	99.47	**0.43**
14.52	Distribution Service Connection	2.63	119.64	120.99	**1.29**
14.53	Distribution System Improvement	12.51	206.60	212.88	**6.23**
14.54	Electrification of Harijan Colonies	0.00	0.36	0.35	**0.01**
14.55	Electrification of Tribal Colonies	0.02	1.44	1.46	**0.00**
14.57	Punja Package	0.00	0.07	0.00	**0.07**
14.58	System Improvement in other areas	0.00	2.22	2.22	**0.00**
14.59	Distbn. Capacitor Installation Scheme	0.00	0.00	0.00	**0.00**
14.60	Street Lights	0.82	10.78	10.74	**0.86**
14.62	RGGVY-Village electrification Infrastructure	39.83	9.46	48.99	**0.30**
14.63	RGGVY-For effecting BPL Service Connection	0.26	0.13	0.15	**0.24**
14.67	Part B Projects of R-APDRP	102.56	72.00	26.33	**148.23**
14.81	MLA Asset Development Fund Scheme (MLA ADF)	0.00	0.01	0.01	**0.00**
14.82	R- APDRP Scheme	289.94	215.25	57.24	**447.96**
14.87	APDRP-Scheme	6.18	12.33	11.98	**6.53**
14.90	CWIP - General	42.54	369.16	308.72	**102.97**
14.91	Innovation fund	0.00	5.03	5.03	**0.00**
14.99	Projects not Identified	1.63	0.59	1.43	**0.78**
	SUB TOTAL (C)	**501.36**	**1,122.80**	**908.25**	**715.91**
	TOTAL OF A TO C	**2,109.16**	**1,579.40**	**1,768.65**	**1,919.90**
CWIP as on 31.03.2017 include Rs 84.52 Cr, Rs.13.21 Cr and Rs.38.88 Cr (Rs.136.61 Cr in total) towards advance to contractors under SBU G, SBU T and SBU D respectively.2. This advance along with Revenue expenses pending allocation to capital works Rs.234.96 are disclosed under CWIP General.					
CAPITAL EXPENDITURE FOR THE PERIOD			**1,579.40**		

Appendix-5.3 : Details of the short-term loans availed for meeting capital liabilities (Rs Cr)								
No	Short term loans	Balance as at31.03.13	Balance as at31.03.14	Balance as at 31.03.15	Balance as at 31.03.16	Received in 2016-17	Repaid in 2016-17	Balance as at 31.03.17
1	State Bank Of India	300.00	300.00	500.00	750.00	0.00	250.00	500.00
2	Vijaya Bank	199.97	200.00	200.00	200.00	400.00	400.00	200.00
3	Canara Bank	0.00						
4	SBT							
5	Federal Bank							
6	Bank of India	0.00	199.98	350.00	450.00	975.00	1037.50	387.50
7	South Indian Bank	350.00	400.00	100.00	100.00	400.00	300.00	200.00
8	Syndicate Bank	0.00	0.00	100.00	100.00	0.00	100.00	0.00
9	Dhanalekshmi Bank	0.00	100.00	0.00				
10	REC - STL - 1	150.00						
11	REC - STL - 2	0.00						
12	PFC - STL - 1	250.00						
13	PFC - STL - 2	250.00						
14	KSPIFC - STL	26.00	26.00	0.00				
15	Tamilnad Mercantile Bank			100.00	0.00			
16	Indian Overseas Bank		300.00	650.00	0.00			
17	Andhra Bank				300.00	1100.00	800.00	600.00
18	**Total**	**1525.97**	**1525.98**	**2000.00**	**1900.00**	2875.00	2887.50	**1887.50**

Appendix 5.4- Details of short-term loan Interest from 2012-13 to 2015-16.

No	Bank	2012-13		2013-14		2014-15		2015-16		2016-17	
		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
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
6	South Indian Bank	11.00	26.44	10.50	30.12	10.50	19.73			9.00	17.92
7	REC STL	13.00	4.63	13.00	20.61						
8	PFC STL	12.50		12.50							
9	PFC STL	12.75	11.16	12.75	42.52						
20	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
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
18	KGB							9.65	3.43		
	Total		**127.57**		**162.86**		**196.44**		**229.43**		**192.06**

Appendix-5.5 : DETAILS OF OVER DRAFT BALANCE FORM 01-04-2016 TO 31-03-2017								
No	*Name of Bank*	**OB**	04/2016	05/2016	06/2016	07/2016	08/2016	09/2016
1	*SBT*	420.37	438.01	332.84	428.47	550.20	561.27	574.56
2	*Canara Bank*	991.97	974.53	807.27	937.05	792.16	536.90	607.24
3	*KGB Peroorkada*	85.99	85.99	86.69	86.67	86.69	86.69	85.98
4	*Federal Bank*	156.11	494.47	493.67	455.68	498.84	484.98	498.52
5	*Vijaya Bank*	318.93	266.24	281.70	287.11	262.15	320.73	319.97
6	*Union Bank of India*	198.57	166.75	185.49	199.39	198.62	198.18	199.23
7	*Syndicate Bank*	0.00	0.00	0.00	0.00	100.79	100.01	100.00
8	*TMB*	0.00	0.00	0.18	0.00	0.00	0.06	0.00
	Total	2171.94	2426.00	2187.84	2394.38	2489.44	2288.81	2385.50
No	*Name of Bank*	10/2016	11/2016	12/2016	01/2017	02/2017	03/2017	
1	*SBT*	538.00	571.40	552.90	558.78	532.20	146.57	
2	*Canara Bank*	761.65	738.44	879.41	595.64	885.41	9.91	
3	*KGB Peroorkada*	85.98	85.98	75.98	85.97	85.97	85.97	
4	*Federal Bank*	495.27	482.41	477.13	496.78	492.01	2.23	
5	*Vijaya Bank*	319.97	302.46	306.46	319.46	319.46	319.43	
6	*Union Bank of India*	198.39	196.22	199.19	197.67	197.37	2.05	
7	*Syndicate Bank*	100.00	100.00	100.00	100.00	100.00	100.00	
8	*TMB*	0.00	0.00	0.00	0.00	0.00	0.00	
	Total	2499.27	2476.92	2591.08	2354.30	2612.42	666.16	
	Continued…							

….Continued								
No.	*Name of Bank*	04/2016	05/2016	06/2016	07/2016	08/2016	09/2016	10/2016
1	*SBT*	3.33	2.95	4.04	3.78	3.93	4.30	1.15
2	*Canara Bank*	6.85	7.38	7.20	7.88	6.88	6.81	7.27
3	*KGB Peroorkada*	0.68	0.70	0.68	0.70	0.70	0.00	0.68
4	*Federal Bank*	0.00	0.00	0.00	0.79	0.00	0.81	0.78
5	*Vijaya Bank*	3.77	3.99	3.82	4.01	3.98	3.73	3.94
6	*Union Bank of India*	2.31	2.46	2.41	2.53	2.59	0.00	2.54
7	*Syndicate Bank*	1.56	1.50	1.62	2.38	1.90	1.90	1.95
8	*TMB*	0.00	0.18	0.00	0.00	0.06	0.00	0.17
	Total	18.50	19.16	19.77	22.08	20.04	17.55	18.48
.	*Name of Bank*	11/2016	12/2016	01/2017	02/2017	03/2017	Total	
1	*SBT*	4.51	7.62	1.27	4.35	7.18	48.41	
2	*Canara Bank*	7.31	7.30	6.45	7.17	7.58	86.09	
3	*KGB Peroorkada*	0.70	1.39	-0.01	0.69	1.33	8.26	
4	*Federal Bank*	0.81	1.59	0.00	0.80	1.36	6.93	
5	*Vijaya Bank*	3.83	3.96	3.98	4.27	3.04	46.31	
6	*Union Bank of India*	5.11	2.79	0.00	2.55	4.81	30.09	
7	*Syndicate Bank*	1.89	1.65	1.56	0.00	3.72	21.63	
8	*TMB*	0.21	0.15	0.00	0.02	0.42	1.21	
	Total	**24.37**	**26.44**	**13.25**	**19.87**	**29.44**	**248.94**	

Appendix-5.6 : Details of total OD interest paid during every month of the FY 2016 – 17														
No.	**Name of Bank**	**4-16**	**5-16**	**6-16**	**7-16**	**8-16**	**9-16**	**10-16**	**11-16**	**12-16**	**1-17**	**2-17**	**3-17**	**Total**
1	Int. on OD – SBT	3.33	2.95	4.04	3.78	3.93	4.30	1.15	4.51	7.62	1.27	4.35	7.18	**48.41**
2	Int. on OD – Canara Bank	6.85	7.38	7.20	7.88	6.88	6.81	7.27	7.31	7.30	6.45	7.17	7.58	**86.09**
3	Int. on OD – South Malabar Gramin Bank	0.68	0.70	0.68	0.70	0.70	0.00	0.68	0.70	1.39	-0.01	0.69	1.33	**8.26**
4	CC from Syndicate Bank 787	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.81	1.59	0.00	0.80	1.36	**5.34**
5	Int. on OD – Federal Bank	3.77	3.99	3.82	4.01	3.98	3.73	3.94	3.83	3.96	3.98	4.27	3.04	**46.31**
6	Int. on OD from Vijaya Bank	2.31	2.46	2.41	2.53	2.59	0.00	2.54	5.11	2.79	0.00	2.55	4.81	**30.09**
7	Int. on OD from UBI	1.56	1.50	1.62	2.38	1.90	1.90	1.95	1.89	1.65	1.56	0.00	3.72	**21.63**
8	Syndicate Bank	0.00	0.00	0.00	0.79	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	**1.59**
9	Interest on Overdraft-Tamil nadu Mercantile Bank	0.00	0.18	0.00	0.00	0.06	0.00	0.17	0.21	0.15	0.00	0.02	0.42	**1.21**
	Total interest paid per month	**18.50**	**19.16**	**19.77**	**22.08**	**20.04**	**17.55**	**18.48**	**24.37**	**26.44**	**13.25**	**19.87**	**29.44**	**248.94**

Appendix – 5.7 : Details of approved and unbridged revenue gap as on 31-03-2015 (Rs. Cr)					
No	Year	Revenue gap approved	Less tariff revision	Net un-bridged revenue gap	Remarks
1	Gap till 2010-11			424.11	True up order 2010-11 dated 30.11.2012.
2	ARR 2011-12	928.62	No Tariff Revision	928.62	ARR Order dated 01.06.2011.
3	ARR 2012-13	1889.15	1257.13	632.02	ARR Order dated 28.04.2012.
4	ARR 2013-14	1049.91	588.93	460.98	ARR Order dated 30.04.2013.
5	ARR 2014-15	1094.78	615.5	479.28	ARR order dated 14.08.2014.
6	**Total**	**4962.46**	**2461.56**	**2925.01**	

Appendix – 5.8 : Comparison of the approved and actual revenue gap as per accounts			
Year	KSERC Approved (Rs Cr)	Actual (Rs Cr)	Difference (Rs Cr)
2011-12	928.62	1934.13	1005.51
2012-13	632.02	3999.14	3367.12
2013-14	460.98	1098.52	637.54
2014-15	479.28	1815.25	1335.97
2015-16		808.90	808.90
TOTAL			**7155.04**

Appendix – 5.9 : Approved and un bridged revenue gap as per ARR and True up orders (Rs Cr)					
No	Year	ARR orders	True up orders	Difference	Remarks
1	2011-12	928.62	1386.97	458.35	True up order dated 16.03.2017.
2	2012-13	632.02	3132.97	2500.95	True up order dated 20.03.2017.
3	2013-14	460.98	195.50	-265.48	True up order dated 20.06.2017
4	Total	**2021.62**	**4715.44**	**2693.82**	Un bridged gap till 31.03.2014

Appendix - 5.9 : Miscellaneous charge from consumers		
NO	PARTICULARS	Rs Cr
1	Recov. For Theft Of Power	0.10
2	UCM	0.01
3	Other Items	29.94
4	TF/RF	16.96
5	Other Levies On Fee	15.09
6	LE/SC Minimum	1.48
7	Processing Fee for Allocation	2.44
8	STOA - Registration and	0.11
9	STOA - Open Access charges	14.05
10	Application fee & registration fee for grid connectivity	1.02
11	Penal charge for making the meter inaccessible for billing	0.01
12	Energisation charges	2.96
14	**TOTAL**	**84.18**

Appendix-5.10 : MISCELLANEOUS RECEIPTS (Rs Cr)		
No	PARTICULARS	Amount
1	Gain On Sale Of Fixed Assets	0.08
2	Rental For Staff Quarters	0.34
3	Rental From Contractors	0.07
4	Rental From Others	5.88
5	Excess Found On Phy. Verification of stock	0.18
6	Maintenance charges for poles from cable TV operators	33.74
7	Infrastructure Development supervision charge	4.20
8	Commission For Collection Of Inspection fee	0.01
9	Commission For Collection Of Ele. Duty	7.84
10	Commission For Collection Of Supply Surcharges	0.12
11	Security Deposits Forfeited	0.04
12	Recpts. from Sale Of Trees at project site	0.19
13	Recpts. from Usufructs Of Tress/agricultural income	0.12
14	Recpts. From outsiders/student doing project work	0.68
15	Income / Fees for providing information to public	0.01
Continued…		

...Continued		
16	Storage and contingency charge on RAPDRP	0.09
17	Receipt of cost of DPR/DIR from Allottee of private SHPs developers	0.11
18	Revenue from Energy Audit	0.08
19	Rent from Office cum Complex of KSEB	0.30
20	Rent from optical fiber cable leasing	3.67
21	Refund of SRLDC fees and charges from POSOCO	0.01
22	From Consumers for CFL distribution under BLY Scheme	-0.54
23	Other Misc. Revenue	33.12
24	Claw back of depreciation on the asset created out of contribution	45.33
25	Netting off adjustment	2.00
	Audit Qualification Adjustments:	
1	Long pending Stamp duty payable on issue of SLR Bonds	4.00
2	Long pending Liabilities and provision written off – since details are not available	0.63
3	Interest on tariff revision in the Power purchase account separately	12.18
4	Non adjustments of fixed asset value realized pending for realization	15.96
5	Interest on Commitment Advance to SPV Ghogarpalli IPCL	0.14
6	Interest on Commitment Advance to TN – UMPP	0.35
7	Interest on Commitment Advance to Tatiya Andhra Mega Power Ltd.	0.02
	TOTAL	**170.96**

Appendix A-33 : INCOME FROM SALE OF SCRAP/TENDER FORM ETC.

No	PARTICULARS	Rs. Cr
1	Hire Charges From Contractors	0.01
2	Profit On Sale Of Stores	0.01
3	Sale Of Scrap (Sale Proceeds)	28.31
4	Sale of LED bulbs.	45.94
5	Sale Of Tender Forms	4.58
	TOTAL	**78.85**

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

CHAPTER- 6 : SUMMARY OF TRUE-UP AND PRAYER

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 2016-17

Particulars	Approved	Actual	Trued up	Deviation
Generation Of Power	0	23.45	23.45	23.45
Purchase of power	7752.76	7393.32	7551.41	- 201.35
Interest & Finance Charges	1488.27	959.92	946.21	- 542.06
Depreciation	414.8	718.88	617.5	202.7
Employee Cost (excluding terminal benefits)		2348.62	2348.62	
Repair & Maintenance		265.12	265.12	
Administration & General Expenses	1596.15	374.79	374.79	1392.38
Other Expenses	0	17.98	49.75	49.75
Terminal benefits	0	1012.16	1012.16	1012.16
Net Expenditure (A)	**11251.98**	**13114.24**	**13189.01**	**1937.03**
Statutory Surplus/ Roe (B)	489.86	0	489.86	0
ARR (C) = (A) + (B)	**11741.84**	**13114.24**	**13678.87**	1937.03
Non-Tariff Income	441	400.78	537.51	96.51
Revenue from Tariff	10900.72	11218.83	11036.77	136.05
Total Income (D)	**11341.72**	**11619.61**	**11574.28**	232.56
Revenue Gap (C-D)	**400.12**	**1494.63**	**2104.59**	**1704.47**

The Statutory Auditors have audited the accounts for the year 2016-17. 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 requires any further details or information; the petitioner will be furnishing them as and when required. Since the revised norms are not available now, Hon Commission may allow the petitioner to provide further details and explanations when such norms are finalized.

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 2016-17 and 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 Commission, policies and directions issued by the State and Central Government and other statutory bodies within the provisions of the Electricity Act-2003.

(2) KSEBL may be permitted to explain variations if any consequent to the revision of norms by the Hon Commission in line with the judgment dated 28.02.2018 of Hon High Court of Kerala in WP(C) 465/2015.

(3) The revenue gap as per the petition may be accounted as regulatory asset or any other appropriate means deemed fit by the Hon Commission according to the provisions of law.

On Behalf of KSEB limited

Deputy Chief Engineer (Commercial & Planning)
With full powers of Chief Engineer
