KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM

Present : **Shri. Preman Dinaraj, Chairman**
Shri. K.Vikraman Nair, Member
Shri. S.Venugopal, Member

OA.No.6/2018

In the matter of Petition for the Truing up of accounts of M/s KSEB Ltd for the financial year 2015-16

Applicant Kerala State Electricity Board Ltd
Vydhyuthi Bhavanam, Pattom
Thiruvananthapuram

ORDER DATED 21/08/2018

In compliance to Regulation 27(6) of KSERC (Conduct of Business) Regulations 2003, the Kerala State Electricity Regulatory Commission having considered the petition for approval of the Truing up of Accounts for the year 2015-16 filed by the Kerala State Electricity Board Limited vide letter No.KSEB/TRAC/TU16/2018-19/4696 dated April 16, 2018, published a summary of this petition in the Kerala Kaumudi daily, Deshabhimani daily and The New Indian Express daily on 15-5-2018. Thereafter, as per Regulation 32 of KSERC (Conduct of Business) Regulations, 2003 a public hearing on the petition was held at the Office of the Commission in Thiruvananthapuram on 30-5-2018 wherein seven stakeholders presented their views and objections.

After having carefully considered the submissions and documents on record filed by KSEB Ltd, electricity consumers/general public and other stakeholders and in exercise of the powers vested in the Commission under Section 62 and 64 of the Electricity Act, 2003 (Central Act 36 of 2003) and KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2014, the Commission hereby pass the following Order.

Dated this the 21st day of August, 2018

Sd/-	Sd/-	Sd/-
K.Vikraman Nair	**S.Venugopal**	**Preman Dinaraj**
Member	Member	Chairman

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CHAPTER -1
INTRODUCTION

Background

1. Kerala State Electricity Board Limited (*hereinafter referred to as KSEB Ltd or licensee*) filed the petition before the Commission on 16-04-2018 for approval of truing up of audited accounts of the Three Strategic Business Units viz., SBU-G, SBU-T and SBU-D of KSEB Ltd for the year 2015-16, as per the provisions of KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2014 (*hereinafter referred to as the Regulations*). The Commission considered the petition and admitted it as OA No. 6/2018. After admitting the petition, the Commission placed a soft copy of the petition in the website of the Commission for the information of the public. The Commission directed KSEB Ltd to publish the abstract of the petition for inviting comments from the public and other stakeholders and the licensee has published the summary of the petition in the following dailies:
    - Kerala Kaumudi daily dated 15-05-2018
    - Deshabhimani daily dated 15-05-2018 and
    - The New Indian Express daily dated 15-05-2018.

2. It is relevant to mention the facts and circumstances leading to submission of the above petition. The Commission had, in exercise of its powers under Section 61 of the Act, issued, vide notification No.787/SEA/2011/KSERC dated 14.11.2014, the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2014 The said Regulation specifies the principles and procedures in detail for determination of tariff applicable to the generation business/company, the transmission business/licensee, the distribution business/licensee and the State Load Dispatch Centre. As per the provisions of the Regulations, all the licensees are required to furnish petitions for approval of Aggregate Revenue Requirement and Expected Revenue from charges for the control period specified under the Regulations from 2015-16 to 2017-18.

3. The Govt. of Kerala has, vide G.O.(P) No.46/2013/PD dated 31/10/2013, issued the Kerala Electricity Second Transfer Scheme (Re-vesting), 2013 for the re-vesting of all the functions, properties, interests in properties, rights and liabilities of the Board vested in the State Government earlier into Strategic Business Unit –Generation (SBU-G), Strategic Business Unit –Transmission (SBU-T) and Strategic Business

Unit –Distribution (SBU-D). As per Clause 5 of the said G.O, the transfer of Undertaking by the State to the KSEB Ltd is with decentralized functions. Clause 5(viii) of the said G.O further mention that within the provisional period of one year from the date of re-vesting, the accounts of the three SBUs (Strategic Business Units) will be segregated by the KSEB Ltd so as to facilitate the evaluation of the financial performance of these units. Separate balance sheets will be prepared for the three SBUs and suitable transfer pricing mechanism among the SBUs shall be worked out by the KSEB Ltd, taking into consideration the financial soundness of the three SBUs.

4. Accordingly KSEB Ltd is required to file on or before 30th of November of the respective financial year, the Petition for determination of tariff for the next financial year, separately for the SBU-G, SBU-T and SBU-D under the multi-year tariff principles as specified in the Regulations. However on 5-1-2015, KSEB Ltd challenged the validity of the Regulations before the Hon'ble High Court of Kerala in the Writ Petition WPC No.465/2015(G). KSEB Ltd's main contention in the petition was that the norms for determining the expenditure specified in the Regulations, are inadequate resulting in under recovery of its expenses.

5. While admitting the above Writ Petition the Hon'ble High Court was pleased to issue an interim order on 07.01.2015 directing the Commission not to reject any tariff proposal, if submitted by KSEB Ltd based on the Regulations. However, the Hon'ble High Court did not declare any of the provision in the Regulations invalid. On the strength of the interim direction, KSEB Ltd filed a petition dated 30.03.2015 for approval of Aggregate Revenue Requirements and Expected Revenue from Tariffs for a single year ie., for 2015-16 for KSEB Ltd as a single entity, ignoring the provisions of the Regulations and Transfer Scheme notified by Government of Kerala.

6. The Commission examined in detail the petition filed for a single year for the composite entity, against the provisions of Regulations. In compliance to interim order of the Hon'ble High Court mentioned above, the Commission did not rejected the Petition.

7. With the notification of Regulations any petition for determination of tariff filed by any licensee including KSEB Ltd in the State can only be processed in accordance with the provisions of the Regulations. Since the Hon'ble High Court had not invalidated

or stayed the operation of any of the provisions in the Regulations, KSEB Ltd was required to comply with the provisions of the Regulations and to file Petitions for determination of tariff in accordance with Regulation 11 of the Regulations for the control period 2015-16 to 2017-18.

8. The Commission in the mean time filed an Interlocutory Application before the Hon. High Court seeking direction for processing the petitions filed before the Commission as per law, since the petitions can be processed only as per the provisions of the Regulations and all the existing regulations since been repealed. In the mean time, the financial year 2015-16 got over and therefore the above petition lost its relevance and became infructuous. Accordingly the Commission on 01-03-2017 issued order directing KSEB Ltd to submit the Petition for truing up of accounts of SBU-G, SBU-T, SBU- D and SLDC for the financial year 2015-16 along with all necessary and sufficient particulars of the actual expenditure and revenue, in accordance with the Regulations.
9. Hon'ble High Court on 28-02-2018 issued the final judgment disposing of the petition and directed the Commission to pass order on the application of the petitioner for truing up of accounts for the years 2015-16, 2016-17, 2017-18 with due regards to the findings in APTEL Judgments and consequential orders passed by the Commission for 2010-11 onwards in the case of the petitioner.
10. Accordingly KSEB Ltd filed a Petition for truing up of audited accounts of SBU-G, SBU-T, SBU- D of KSEB Ltd for the year 2015-16, before the Commission on 16-04-2018.

11. After receiving the petition, the Commission sought clarifications on the petition as per the letters dated 3-5-2018 & 28-5-2018. The licensee furnished the details vide letter dated 28-5-2018 and further clarifications vide letters dated 7-6-2018, 21-6-2018, 6-7-2018, 10-7-2018 and 13-7-2018.

12. The hearing on the petition was held at the office of the Commission on 30-5-2018. KSEB Ltd also furnished an additional submission in compliance to the Daily order dated 12-6-2018 and the reply to the objections raised by HT-EHT Association during the hearing. The details of the clarifications sought by the Commission is as shown below:

Sl.No	Reference No.	Date	Subject
1.	692/F&T/2018/KSERC/411	03-5-2018	Clarifications on the truing up petition
2	692/F&T/2018/KSERC/477	28-5-2018	Second set of clarifications
3	692/F&T/2018/KSERC/558	04-7-2018	Additional clarifications required
4	692/F&T/2018/KSERC/577	06-7-2018	Clarifications on employee cost
5.	692/F&T/2018/KSERC/	31-7-2018	Clarifications on CWIP

13. The details of the responses given by KSEB Ltd are shown below:

Sl.No	Reference No.	Date	Subject
1.	KSEB/TRAC/FO/TU16/4778	28-5-2018	Clarifications
2	KSEB/TRAC/FO/TU16/4805	07-6-2018	Additional clarifications
3	KSEB/TRAC/CERC/RGCCPP/2018-19/4809	12-6-2018	Annual fixed charges of RGCCPP,
3	KSEB/TRAC/Trueup/2015-16/4626	21-6-2018	Additional submission
4	KSEB/TRAC/FO/TU16/4659	06-7-2018	Additional clarifications
5	KSEB/TRAC/FO/Trueup/2015-16/4668	10-7-2018	Clarifications on employee cost
6	KSEB/TRAC/FO/Trueup/2015-16/4674	13-7-2018	KSEB Ltd comments on the response of HT-EHT Association
7.	KSEB/TRAC/FO/TU16/4707	03-8-2018	Additional clarifications – CWIP
8.	KSEB/TRAC/FO/TU16/4720	13-8-2018	Additional clarifications - CWIP

14. A comparison of the summary of the Audited Accounts and Truing up petition for the year 2015-16 of KSEB Ltd is tabulated below:

Table 1
Summary of the Audited Accounts and Truing up the year 2015-16

Particulars	Audited Accounts (Rs.crore)	Truing up petition (Rs. crore)
Revenue from energy sale	10914.44	10487.71
Non-tariff income	332.71	739.44
Total Income	**11247.15**	**11227.15**
Generation of Power	104.25	104.25
Purchase of power	6,336.82	6,336.82
Interest & Finance Charges	851.41	837.15
Depreciation	491.22	491.22
Employee Cost	3,104.53	3,104.53
R&M Expenses	259.76	259.76
A&G Expenses	327.88	327.88
Other Expenses	84.58	84.58
Gross Expenditure	11,560.45	11,546.19
Return on Equity	-	489.86
Total Expenditure	**11,560.45**	**12,036.05**
Revenue gap	**313.29**	**808.89**

15. The revenue gap as per the Petition for truing up of accounts for the year 2015-16 is **Rs 808.89 crore**. The difference between the audited accounts and the truing up petition is mainly on account of the Non-tariff income (Rs.20 crore) Return on Equity (Rs.489.86 crore), and interest and financing charges (Rs.-14.26 crore) as per the truing up of accounts (Rs.808.89 crore - 313.29 crore =Rs.495.6 crore).

16. The SBU wise ARR & ERC furnished in the petition is as shown below:

Table 2

SBU wise ARR&ERC for 2015-16

Item	As per True up petition			
	SBU-G (Rs. crore)	**SBU-T (Rs. crore)**	**SBU-D (Rs. crore)**	**KSEB Ltd (Rs. crore)**
Revenue from Tariff	**633.37**	**751.62**	**10,487.71**	**10,487.71**
Non Tariff income	19.43	33.74	686.27	739.44
Total Revenue	**652.80**	**785.36**	**11,173.98**	**11,227.15**
Cost of power Generation	104.26	-	633.37	104.26
Intra State Transmission		-	751.62	
Purchase of power			6,336.82	6,336.82
Employee cost	142.17	292.54	2,669.83	3,104.53
R&M expenses	26.02	47.91	185.82	259.76
A&G expenses	16.31	50.41	261.15	327.87
Interest & FC	46.32	49.63	741.19	837.15
Depreciation	122.05	133.04	236.13	491.22
RoE	203.63	217.59	68.64	489.86
Other expenses	-7.96	-5.76	98.30	84.58
Aggregate Revenue Requirements	**652.80**	**785.36**	**11,982.87**	**12,036.05**
Revenue gap	**-**	**-**	**808.89**	**808.89**

Public hearing on the petition

17. Public hearing on the petition was held at the Court Room, Office of the Kerala State Electricity Regulatory Commission, Thiruvananthapuram on 30-05-2018 at 11.00 AM. The list of participants is given in Annexure.

18. M/s KSEB Ltd was represented by Sri. B.Pradeep, Deputy Chief Engineer with full powers of Chief Engineer, Sri. Bipin Shankar, Deputy Chief Engineer (TRAC), Sri. Biju.R, Financial Advisor & Chief Accounts Officer, Sri. K.G.P Namboothiri, Executive Engineer (TRAC), Sri. Girish Kumar V.S, Finance Officer, (TRAC) and

other officers of KSEB Ltd. Sri. B.Pradeep presented the details of the Petition before the Commission highlighting the following:

- The total energy sale for the year 2015-16 as per the Petition was 19325.07 MU. Energy sale outside the State through exchange by KSEB Ltd was 53.48 MU. Sale outside the State through IPPs was 38.63 MU.
- Open Access purchase by consumers is 135.25MU.
- The total energy requirement for the year 2015-16 was 22819.44 MU.
- The actual Transmission and Distribution loss reported by KSEB Ltd for the year 2015-16 was 14.37%.
- Cost of power purchased by KSEB Ltd for 2015-16 was Rs. 6336.82 crore, comprising Rs.5912.38 crore towards power purchase and Rs. 424.44 crore towards interstate transmission charges.
- The net generation from Brahmapuram Diesel Power Project (BDPP) and Kozhikode Diesel Power Project (KDPP) was 145.53 MU at a variable cost of Rs 104.26 crore.
- The actual expense incurred under Interest and financing charges before capitalization was Rs.909.14 crore which includes loan interest, security deposit interest, overdraft interest, PF interest etc.
- The total depreciation claimed is Rs.491.22 crore which includes the depreciation of SBU G, SBU-T & SBU D and depreciation for assets created out of consumer contribution and grants
- The total O&M expenditure for the year is Rs.3692.16 crore which include the repair and maintenance expenses, employee cost, and administrative and general expenses of SBU G, SBU-T & SBU D. Since Master Trust was not fully operational it was submitted that, pension payment as per accounts may be allowed.
- Total return on equity is Rs.489.86 crore.
- Other expenses include other debits and prior period charges. Other debits include material cost variance, provision for bad and doubtful debts etc. The net other expenses was Rs.84.58 crore.
- Non-tariff income for the year 2015-16 was Rs. 759.44 crore which includes meter rent/service line rental, miscellaneous charges from consumers, recoveries, income from sale of scrap etc.
- Revenue from tariff for the sale of 19325.07 MU during the year 2015-16 was Rs. 10446.01 crore. The licensee has also earned Rs. 41.70 crore from sale

outside the state. Thus the total revenue from sale of power was Rs. 10487.71 crore.

- The revenue gap as per the petition for truing up of accounts for the year 2015-16 was Rs 808.89 crore.

19. In the petition, KSEB Ltd has claimed that the Statutory Auditors have audited the accounts for the year 2015-16 and the truing up petition is prepared on the basis of the audited accounts. The details of accounts are furnished as per formats given in the Regulations. KSEB Ltd also requested that since the revised norms are not available the Commission may allow KSEB Ltd to provide further details and explanations when such norms are finalized. Based on the above, following prayers were made in the petition:

" a. Truing up of Expenses and Revenue as per the Audited Accounts of KSEB Ltd for the year 2015-16 and explained in the petition may 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 Commission, policies and directions issued by the State and Central Government and other statutory bodies within the provisions of the Electricity Act, 2003.

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

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

Response of stakeholders

20. **Sri. Dijo Kappan** representing the **Consumer Education Trust**, presented the views and objections on the claims made by KSEB Ltd. He submitted that the order on the truing up of accounts for 2015-16 may be issued only after duly considering the *suo-motu* order dated 17-04-2017 of the Commission. KSEB Ltd has not complied with any of the Regulations issued by the Commission and had thereby taken undue advantage over other licensees. He stated that all long

pending arrears of electricity charges are to be recovered by KSEB Ltd, rather than by settling them with One Time Settlement (OTS) mechanism. The mechanism in turn leads to loss for KSEB Ltd which in turn is passed on to the consumers by way of tariff as the same is a liability of KSEB Ltd. The operating cost of KSEB Ltd can be reduced to a great extent by increasing the collection efficiency. He also stressed that the capital expenditure made by the KSEB Ltd are to be capitalised in a time bound manner. The Commission may give proper directions to limit the cost and time over run. He pointed out that almost 40 projects are now pending with KSEB Ltd and cited the example of Pallivasal Extension Scheme undertaken by KSEB Ltd. He was also mentioned that the unloaded material kept in the yard of KSEB Ltd has become scrap due to lack of planning. He stated that the licensee may be directed to give proper importance to generation through renewable energy sources as other states across the nation are consistently increasing the generation through renewable energy sources. He also stated that the claim of the licensee on Employee cost and Repair and maintenance cost are on the higher side and the same shall not be passed on to the consumers. The per unit cost of electricity is higher in the state in comparison with other states. The licensee may also be directed to have futuristic approaches in procuring power. He also submitted that KSEB Ltd may settle the arrears through one time settlement only with the prior approval of the Commission.

21. **Sri. Sukumaran**, a domestic consumer submitted that the Commission should not consider the accounts submitted by the licensee for the year 2015-16; as **inefficiency** is the reason for increase in revenue gap of KSEB Ltd. He further stated that the Commission may not increase the tariff as the same is already high in the state. He further submitted that KSEB Ltd may file the Petitions on time and the Commission after processing the same may only pass on genuine expenses.

22. **Sri. Reghunathan**, representing the **Friends of Electricity Employees and Consumers** submitted their comments on the Petition for the Truing up of accounts of M/s KSEB Ltd for the financial year 2015-16. According to him, Transmission & Distribution loss and the number of faulty meters have reduced. Proper maintenance of plant and machinery is very essential for ensuring the reliability of supply and reduction of accidents. So the request of the licensee for revising the norms and approving the O&M cost may be allowed. Norms as per CERC Regulation may be considered for O&M cost for generating stations. Further, the effort of KSEB Ltd to provide power to the consumers without load

shedding or power restriction is to be appreciated. With regard to Master Trust it was submitted that as per the actuarial valuation carried out. the total liability as on 31.3.2017 comes to Rs.16147.70 crore from Rs. 12419 crore. as on 31.3.2013. Unless the interest payment and repayment of principal amount to the Master Trust is made regularly the viable operation of the fund will not be possible. He requested the intervention of the Commission to improve the financial position of the Master Trust in order to protect the interests of consumers and pensioners of KSEB Ltd. Carrying cost being a legitimate claim of the utility, the interest on overdraft actually incurred is eligible for pass through. So the interest on overdraft may be approved in full.

23. **Sri. Shaji Sebastian** presented the views of **Kerala Small Scale Industries Association**. He appreciated the consumer friendly actions done by KSEB Ltd and mentioned that KSEB Ltd is not giving proper encouragement for promotion of renewable energy. He further submitted that KSEB Ltd has not met the RPO Obligation and the Commission may make sure that the same does not become a burden on the consumers across the State.

24. **Sri. Jayaprakash**, representing the **KSEB Workers Association** submitted that the number of consumers is increasing in the State. So the employee cost claimed by KSEB Ltd in view with the total number of employees may be allowed. He also submitted that the Commission may approve the claims made by KSEB Ltd while truing up the accounts for the year 2015-16.

25. **The Kerala HT & EHT Industrial Electricity Consumers' Association** (*HT-EHT Association or Association for short*) made detailed presentation on their views on the Petition for truing up. **Sri. A.R.Satheesh**, President of the Association, presented the comments of the Association on the Petition filed by KSEB Ltd.

26. The **Association** pointed out that there is considerable delay in filing of the truing up petition. In this context, the Association pointed out that the Commission had initiated action against KSEB Ltd and vide order dated 17-8-2010, imposed penalty for not filing truing up petitions for the years 2007-08 and 2008-09. They have also pointed out the judgment of Hon. Supreme Court in UPPCL & other Vs NTPC Limited (2009) 6 SCC 235 where the Apex Court has ruled that some persons who are consumers during the tariff year in question may not continue to be consumers and some new consumers might have been added to the system and there is no reason why they should bear the brunt. They have further pointed out that as per the provisions of Companies Act 2013, annual accounts have to be filed within 6

months of closing of the financial years. Further they have pointed out that there is no ARR&ERC order for the year 2015-16 and the petition for truing up is made with reference to the ARR&ERC petition, which was not made available to the Commission.

27. According to the Association if the suggested loss target of 0.50% is enforced, the energy requirement will be reduced by 65.54MU ie., for a loss level of 14.07%, energy requirement would be 22753.9MU considering the sales of 19552MU.

28. With regard to Power Purchase from IPPs it was submitted that KSEB Ltd has purchased 279.74 MU at the cost of Rs. 421.10 crore which is largely contributed by liquid fuel station RGCCPP, Wind IPPs and other small hydro plants. The Association requested the Commission to note that the variable cost paid to the RGCCPP stands at Rs. 8.13/kWh. The KSEB Ltd has also purchased 5 MU power from BSES station at a substantially higher cost (variable cost of Rs. 12/kWh). The Association requested the Commission to disallow the excess cost and reduce the power procurement cost to the extent of Rs.70.51 crore (Rs.421.10 crore-Rs.350.59 crore) against actual claims of the KSEB Ltd. The Association pointed out that interest on CWIP cannot be allowed as per the Regulations, the capital works in progress as on March 2016 is Rs. 2,109 crore. It was submitted that the interest charges on work in progress loans of Rs. 226.70 crore at an average rate of 10.75% may be disallowed. The Association also stated that interest on working capital should be disallowed considering the fact that KSEB Ltd is in excess of current liabilities over non-cash assets which is more than sufficient to cover working capital requirement. It was further submitted that the Commission may allow only the actual interest disbursed on security deposit in the truing up.

29. According to the Association, Commission may carry out a prudence check on the capital expenditure to verify the cost-benefit and progress reports to ascertain the prudent capital expenditure to be approved for the purpose of calculation of interest on loans and bonds. KSEB Ltd has claimed the terminal liabilities amounting to Rs.1004.50 crore which shall be completely disallowed in the virtue of prevailing regulations and government order to create separate Master trust. It was further submitted that KSEB Ltd has added the terminal liabilities as a part of employee cost, which is not in line with the regulatory requirements. The depreciation submitted by KSEB Ltd may be re-estimated as per the Regulations as the amount claimed is net of claw back depreciation.

30. The Association stated that IIM Kozikode has provided explicit recommendations on organisational structure, career and training needs. The Association requested the Commission to direct KSEB Ltd to implement the recommendation to improve productivity and quality of service. It was further submitted that the Commission may direct KSEB Ltd to comply with the recommendations in an efficient manner. The Repair & Maintenance cost of KSEB Ltd is one of the highest among all Indian states whereas the National average was very low. Accordingly it was submitted that the O&M expenses may be allowed as per the Regulations.

31. KSEB Ltd is frequently challenging the order of Commission in APTEL & Supreme Court, resulting in spending a considerable amount as legal fees which is part of A&G head. The legal charges thus paid shall not be passed on to the consumers and KSEB Ltd shall cover this cost from the RoE. The Commission may undertake a thorough check on variances provided by KSEB Ltd on the material cost variance of Rs.71.84 crore. According to the Association, once the points raised by them are considered, there will be a Revenue surplus of Rs.1625.33 crore against a Revenue gap of Rs. 808.89 crore as proposed by KSEB Ltd.

32. **Sri. Jayathilakan**, representing **Kerala State Productivity Council** submitted that KSEB Ltd may be directed to comply with the Regulations issued by the Commission. He submitted that the operation and maintenance cost should be brought down by KSEB Ltd and efficiency should be increased. He requested that Open access may be allowed to industrial consumers.

33. In the written objections, **the President, Upabokthru Samrakshna Samithi, Antikadd, Thrissur** stated that the details furnished by KSEB Ltd is not proper. The income is understated and expenses are overstated and hence the same shall not be approved. KSEB Ltd did not includ the charges paid by the Government for free electricity for agriculture, other government departments, public sector undertaking , arrears from large industries etc., Hence the accounts of the KSEB Ltd should be examined by a separate agency.

34. **Sri. M.J Chandy, Aluva** in representation dated 12-6-2018 pointed out four issues before the Commission. First, KSEB Ltd shall take strict action to realize the arrears from large institutions. Secondly, surprise inspections may be made to ensure that meters are functioning properly, thirdly, the consumers shall be made liable to report meter faulty cases within 6 months it becomes faulty and if such complaints are received the meters shall be replaced within 7 days from the

receipt of complaint. Finally, free electricity should be limited to actual BPL families only. He requested that the suggestions may be implemented.

35. **Dr. K. Vijayakumar N.D, Jyothi nilayam, Kollengode** in his representation made suggestions for reducing employees and avoid extravagant expenses. According to him street lights to be converted to solar and a centre similar to ANERT is to be established in KSEB Ltd also.

36. **Shri. Shaji Sebastian**, in his written submission stated that instead of properly assessing the arrears and disputed amounts, huge bills were being issued by KSEB and the same is challenged before the CGRF, Ombudsman and Appellate Authority by the consumers. It is stated that instead of collecting eligible payment as per the orders of above authorities, KSEB Ltd is continuing with litigation by filing appeal before Hon'ble High Court. It is, therefore, suggested that the Commission may give proper direction to the KSEB Ltd for reduction of unwanted litigation, loss of money and image. He further stated that KSEB Ltd is always opposing renewable energy generation and its usage and has already paid Rs.10 crore as penalty. KSEB Ltd is also opposing RPO target. If KSEB Ltd is penalized for non-compliance of RPO, the poor consumers will again be burdened with tariff hike. It is, therefore, suggested that the licensee may be directed either to buy Renewable Energy at preferential tariff or permit an IPP to sell the electricity to a third party without attracting wheeling charge and cross subsidy surcharge, but surrendering RPO.

37. He further opined that in order to overcome the difficulties due to implementation of open access and shifting of bulk consumers to open access, the KSEB Ltd should encourage the use of electricity and also should find new consumers. Shri Shaji also suggested to improve the process of granting electric connections. According to him, KSEB Ltd should focus on improving the efficiency of generation, transmission and distribution system by installing more efficient generators, strengthening transmission and distribution load. Sale of LED bulbs and educating the consumers shall come under the purview of EMC and not KSEB Ltd.

38. **Ms. Neenu Skaria**, representing **Industrial Electricity Consumers Consortium, Kochi** stated that the revenue gap of Rs.808.89 crore as per truing up petition filed by KSEB Ltd shows that KSEB Ltd is heading towards tariff hike. Further increase in tariff is not fair as the average cost of electricity is Rs.3.00. KSEB Ltd will have to reduce the cost and improve operational efficiency by providing reliable and

stable supply without interruption at competitive rate. The huge difference in peak hour usage and off-peak hour usage is mandating the requirement of higher capacity line and substation with lower capacity utilization during normal and off peak hours. This problem can be addressed by way of distributed storage. By citing an example of Demand charges for Hospital, Industry and Hotel it was stated that tariff restructuring would help KSEB Ltd for generating more revenue. If consumers install Solar and Storage, they can shift their Demand from peak hours to off-peak hours. She suggested that if tariff is restructured, the consumers will opt for Solar Storage Solution as “Sun Shift”. It is suggested that instead of bulk storage with heavy investment, KSEB Ltd has to encourage Distributed Storage with consumer investment.

Reply of KSEB Ltd on the objections of HT-EHT Association

39. KSEB Ltd furnished a detailed reply vide letter dated 13-7-2018 on the objections raised by the Association. Only an abstract of the same is given below: Regarding validity of filing and delay in filing, KSEB Ltd mentioned that the truing up petition could only be filed based on the disposal of WP(C)465/2015 in view of the fact that there was no approved figures for the year 2015-16. The matter was disposed on 28-2-2018 and the petition was filed on 16-4-2018 or within 2 months from the date of judgment. Hence there is no intentional delay in filing the petition as alleged by the respondent.

40. In the case of the decisions of Hon. Supreme Court and Hon APTEL cited by the respondent it was stated that those rulings are not squarely applicable to the present case as the facts and circumstances are entirely different.

41. Regarding the T&D loss target of 0.5%, KSEB Ltd stated that, many steps have been taken to strengthen the transmission and distribution system for loss reduction. The T&D loss reduction of 0.20% achieved during the year is the testimony to the fruitfulness of the efforts taken by KSEB Ltd in curtailing losses. Hence, KSEB Ltd requested to approve the actual T&D loss of 14.37% for the year 2015-16.

42. In the case of the argument that auxiliary consumption of substation of 14.14MU is to be treated as T&D loss is not fair and the argument to disallow 65.54MU from power purchase at marginal rate is also not acceptable. Regarding the objection that power purchase cost of central stations is higher compared to neighbouring states is also not correct considering the fact that power purchase cost for the

central stations differ on account of non-uniform allocation of power from different sources, PoC loss is higher in Kerala, and no coal or lignite stations are located in the State.

43. Regarding interest charges for capital works in progress, KSEB Ltd stated that in the accounts, capitalization of interest and other charges attributable to capital works in progress and such amount is not claimed as expenses in the ARR or truing up petitions and as such Regulation 25 is fully complied with. Further the argument that interest on overdraft is to be disallowed as there is no need for working capital is also not correct as the respondent has not properly assessed the requirement of working capital and unbridged revenue gap. In the case of interest on security deposits, KSEB Ltd has claimed only the actual amount disbursed. The argument that in view of the Order of the Government interest on Master Trust is to be disallowed is also not correct as the matter on the formation of Master Trust and the claim of income tax are properly apprised before the Commission

44. Further, the method of calculation of depreciation by the respondent Association is not in line with the provisions of CERC Regulations. The statement that O&M expenses of the petitioner is the highest in the country is not based on objective comparison. Regarding the remarks of Additional Chief Secretary, (Finance) on the pay revision, KSEB stated that the long term settlement between the unions and KSEB Ltd was concurred by the Board of Directors and the views expressed by Additional Chief Secretary is as a member of the Board cannot be construed as the views of the State Government in the matter.

45. The argument of the respondent that the per unit R&M and A&G expenses and percentage with respect to ARR is also not correct without considering the volume of sales. Regarding material cost variance, the Commission has already approved the cost in the previous truing up orders. Regarding RoE and amount of equity, the subject matter is before the Supreme Court and there is express provision in the Regulations, regarding Equity and hence, the argument of the respondent is to be rejected.

46. The Commission after examining the petition and the clarifications furnished thereon in detail and the objections of the stakeholders and public, has arrived at the truing up of accounts of the KSEB Ltd for the year 2015-16 as detailed in the ensuing chapters.

CHAPTER -2

TRUING UP OF ACCOUNTS OF STRATEGIC BUSINESS UNIT GENERATION (SBU-G)

Introduction

1. In exercise of its powers under Section 131 of the Electricity Act 2003 the Government of Kerala vide G.O(P) No. 46/2013/PD dated 31-10-2013 had issued a transfer scheme, revested the properties, liabilities, interests, rights and obligations of the erstwhile KSEB into KSEB Ltd, a company incorporated under the provisions of the Companies Act 1956. The three distinct functions of the erstwhile Board, i.e. generation, transmission and distribution was separated into three independent Strategic Business Units (SBUs) viz., SBU-Generation (SBU-G), SBU-Transmission (SBU-T), and SBU-Distribution (SBU-D). SBU-G is vested with the functions of the managing the generating stations of erstwhile KSEB and for establishing and managing new generating stations in the State.

2. As on 31.03.2016, KSEB Ltd has 42 number of hydel, thermal and renewable energy generating stations, with a total installed generation capacity of 2209.30MW, The details of these generating stations with their installed capacities are given in the Table below:

Table 1

Installed capacity of Generating Stations

Sl. No	Name of the Station	Installed Capacity (MW)
1	Pallivasal	37.50
2	Sengulam	51.20
3	Neriamangalam	52.65
4	Neriaangalam Extension	25.00
5	Panniar	32.40
6	Poringalkuthu	36.00
7	Sholayar	54.00
8	Sabarigiri	340.00
9	Kuttiyadi scheme	75.00
10	Kuttiadi Extensioon	50.00
11	Kuttiadi Additional Extension	100.00
12	Idukki	780.00
13	Idamalayar	75.00
14	Kallada	15.00
15	Peppara	3.00
16	Lower Periyar	180.00

Sl. No	Name of the Station	Installed Capacity (MW)
17	Mattupetty	2.00
18	Poringalkutuy LBE	16.00
19.	Kakkad	50.00
20	Kuttiadi Tail race	3.75
21	Malampuzha	2.50
22	Chembukadavu Stage –I	2.70
23	Chembukadavu Stage-II	3.75
24	Urumi Stage-I	3.75
25	Urumi Stage-II	2.40
26	Malankara	10.50
27	Lower Meenmutty	3.50
28	Poozhithode	4.80
29	Ranni Perinad	4.00
30	Peechi	1.25
31	Vilangad	7.50
32	Chimony	2.50
33	Adyanpara	3.50
34	Barapole	15.00
35	Prongalkuthu micro	0.01
	Total Hydel	2046.16
1	Kanjikode	2.025
	Total Wind	2.025
1	Brahmapuram Diesel Power Plant	63.96
2	Kozhikode Diesel Power Plant	96.00
	Total Thermal	159.96
1.	Kanjikode	1.00
2	Chaliyoor Colony, Agali	0.096
3	Poringalkuthu power house	0.05
4	Banasurasagar, Wyanad	0.01
	Total Solar	1.156
	TOTAL	2209.30

3. As seen from the Table above, SBU-G has 35 hydro generating stations with an installed capacity of 2046.16MW, 159.96MW from two diesel generating stations (KDPP and BDPP), and 3.2MW of renewable energy sources (wind and solar). Of the 35 hydro electric generating stations, 20 stations are small hydro stations having installed capacity of less than 25MW each.

4. The diesel generating stations are Brahmapuram Diesel Power Plant (BDPP) having installed capacity of 63.96MW and Kozhikode Diesel Power Plant having installed capacity of 96MW.

5. During 2015-16, the total energy generated by SBU-G was 6753.39MU. Of this 6605.67MU or 98% of the energy generated was from hydro generating stations. The energy generation from diesel generating stations viz., BDPP and KDPP was 145.53 MU and balance 2.19MU was from renewable sources i.e. wind and solar generating plants.

6. An analysis of the Truing up petition submitted by KSEB Ltd reveals the following:

REVENUE FROM OPERATIONS:

7. As per the Government of Kerala transfer scheme SBU-G is responsible for operating the generation assets of KSEB Ltd. All energy generated by the SBU-G stations is supplied to SBU-D for their distribution and sale to the consumers. Since the primary role of SBU-G envisaged in the Transfer Scheme is to generate electricity and transfer it to SBU-D, all expenses incurred for the generation of electricity by the different stations of SBU-G is recovered from SBU-D as Transfer Cost, which is treated as the income from operations of SBU-G. .

8. KSEB Ltd in their truing up petition has claimed the SBU-G transfer cost as Rs.633.37 crore.

Tariff Income

9. As mentioned above, SBU-G does not have a separate tariff income. Instead, its tariff income is derived after considering expenses such as cost of power generation, interest and finance charges, depreciation, O&M expenses, Return on Equity, etc., after deducting the non-tariff income. This amount is considered as the transfer cost which it charges from the SBU-D. The details of this amount are indicated at the end of this Chapter.

Non Tariff income

10. In the truing up petition, SBU-G has claimed a non-tariff income of Rs.19.43 crore. The different components of non- tariff income are shown in the Table below:

Table 2

Non-Tariff income of SBU-G for 2015-16

Sr. No	Particulars	2015-16 (Rs. crore)	
		Audited accounts	Truing Up petition
1	Interest on staff loans and advances	0.01	0.01
2	Income from statutory investments	0.01	0.01
3	Income from sale of ash/rejected coal		0.00
4	Income from rent of land or buildings	0.70	0.70
5	Income from sale of scrap	1.80	1.80
6	Income from staff welfare activities	0.00	0.00
7	Rental from staff quarters	0.06	0.06
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	1.23	1.23
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	9.30	9.30
14	Interest on delayed or deferred payment on bills	6.32	6.32
15	Rebate from fuel suppliers		
	Total non-tariff income	19.43	19.43

Objections of Stakeholders

11. During the Public Hearing or thereafter, the stakeholders have not raised any objections about non-tariff income as claimed by SBU-G

Provisions in the Regulations

12. Relevant Regulations regarding Non-Tariff income is given below:

“***45.Non-tariff income. -*** *(1) The amount of non-tariff income of the generation business/company as approved by the Commission shall be deducted from the annual fixed charges while determining the annual fixed charges of the generation business/company.”*

13. Hence, in compliance to Regulation 45, the amount of non tariff income of SBU-G is to be deducted from annual charges. Regulation 45(2) provides the indicative list of items under non tariff income as shown below

“45 (2) The indicative list of items to be considered as non-tariff income are as specified hereunder:-

(i) interest on staff loans and advances;

(ii) income from statutory investments;
(iii) income from sale of ash/rejected coal;
(iv) income from rent of land or buildings;
(v) income from sale of scrap;
(vi) income from staff welfare activities;
(vii) rental from staff quarters;
(viii) excess found on physical verification;
(ix) interest on investments, fixed and call deposits and bank balances;
(x) interest on advances to suppliers/contractors;
(xi) income from hire charges from contractors and others;
(xii) income from advertisements, etc.;
(xiii) miscellaneous receipts;
(xiv) interest on delayed or deferred payment on bills; and
(xv) rebate from fuel suppliers"

14. In the truing up petition, KSEB Ltd has claimed a non-tariff income of Rs.19.43 crore.

15. ***The Commission after considering the details furnished, approves the non-tariff income of SBU-G for the year 2015-16 as claimed by KSEB Ltd for SBU-G***

Total Revenue

16. The total Revenue of SBU-G is the total of revenue from operations and its non-tariff income. KSEB Ltd in their petition has claimed Rs.652.80 crore and the total income approved for SBU-G is Rs.583.42 crore. Since the revenue of SBU-G net of Non Tariff Income (Rs.563.99 crore) is the transfer cost to SBU-D, the details of the same is furnished in the forgoing sections.

Table 3

Total Revenue of SBU-G for the year 2015-16

	As per Petition (Rs. crore)	Approved in Truing up (Rs.crore)
Revenue from Transfer Cost	633.37	563.99
Non-Tariff income	19.43	19.43
Total Income	**652.80**	**583.42**

EXPENSES OF SBU-G

17. In their truing up petition for SBU-G, KSEB Ltd had indicated the summary of expenses including Return on Equity as shown below:

Table 4
Expenses of SBU-G as per the petition

No	Particulars	Amount (Rs. crore)
1	Cost of Generation of Power	104.26
2	O&M Expenses	184.50
3	Interest & Financial Charges	46.32
4	Depreciation	122.05
5	RoE (14% of Rs 1454.53 crore)	203.63
6	Other debit and prior period income	-7 .96
7	**Gross Aggregate Revenue Requirement (ARR)**	**652.80**
8	Less Non-Tariff Income	19.43
9	**Net ARR** (ie.,Cost Transferred to SBU-D as Cost of Generation)	**633.37**

18. Based on the above submissions, the Commission has carried out a prudence check of each of the above heads of expenditure viz–a–viz the Regulations as indicated below;

Cost of Generation–Hydro generating stations

19. As indicated above, KSEB Ltd, has claimed Rs.104.26 crores as the cost of generation power. KSEB Ltd has mentioned that the gross hydel generation was 6639.02 MU, whereas the net generation after deducting auxiliary consumption of 33.35 MU was 6605.67 MU. The auxiliary consumption as a percentage of the gross generation was 0.50%. The details of generation from hydro stations for the year 2015-16 is given in the Table below:

Table 5
Station Wise Hydel Generation in FY 2015-16

Name of the stations	Generation MU)
Kuttiady (Units 1 to 6)	575.89
Sholayar	210.22
Poringalkuthu	170.77
PLBE	106.43
Pallivasal	218.60
Sengulam	160.91
Panniar	173.93
Neriamangalam+NES	352.07
Edamalayar	275.76

Name of the stations	Generation MU)
Idukki	2373.27
Sabarigiri	1168.95
Kallada	44.81
Peppara	4.71
Madupetty	4.29
Kakkad	183.64
Lower Periyar	510.97
Malampuzha	2.03
Chembukadav	9.04
Urumi	9.30
Malankara	32.43
Lower Meenmutty	5.56
Kuttiady Tail Race	8.05
Poozhithode	8.62
Ranni-Perinadu	7.66
Peechi	1.43
Vilangad	12.75
Chimony	4.59
Addyanpara	2.36
KSEB Hydro (TOTAL)	6639.02
Auxiliary consumption	33.35
Net Generation	6605.67
Auxiliary consumption %	0.50

20. As part of the clarifications, KSEB Ltd in its letter dated 28-5-2018 had furnished the percentage auxiliary consumption of major stations as shown below:

Table 6

Auxiliary consumption for generating stations for 2015-16

No	Station	AuxCon (%)	No	Station	Aux Con (%)
1	Idukki	0.91	8	Sengulam	6.06
2	Sabarigiri	0.83	9	Kakkad	0.96
3	Kuttiyadi	0.88	10	Pallivasal	0.76
4	Lower Periyar	0.84	11	Poringalkutthu + PLBE	0.97
5	Neriyamangalam	0.73	12	Panniyar	1.01
6	Idamalayar	1.83	13	BDPP	8.54
7	Sholayar	0.91	14	KDPP	2.89

21. The Commission in its letter dated 4-7-2018 had again sought details on the discrepancy of the station wise auxiliary consumption furnished as per letter dated 28-5-2018. In response, KSEB Ltd in its letter dated 6-7-2018 has stated that in

the truing up petition the auxiliary consumption of 33.35MU was arrived at based on the actual meter readings. However, this value does not include the transformation losses and excitation. Hence a provision of 0.2% for excitation and 0.3% for transformation losses included in auxiliary consumption of generating stations and the same is included as per the details furnished in the letter dated 28-5-2018. Thus, auxiliary consumption of substations amounting to 14.14 MU was left out while presenting the figures. According to KSEB Ltd the substation auxiliary consumption was considered as part of auxiliary consumption in all the previous years. KSEB Ltd in its letter dated 6-7-2018 had furnished the revised statement of auxiliary consumption as shown below:

Table 7

Energy Generation and auxiliary consumption

Gross Generation	MU
Hydro	6,639.02
BDPP	13.25
KDPP	137.38
Wind	1.38
Solar	0.81
Subtotal Own Generation	**6,791.84**
Auxiliary consumption	
Hydro	33.35
Thermal	5.11
Wind	0.00
Solar	-
Sub Total	**38.46**
Net Generation	6,753.38
Less Substation auxiliary consumption	14.14
Net Generation	**6,739.24**

Objections of the Stakeholders

22. In their submission, the High Tension and Extra High Tension (HT-EHT) Association stated that for hydro stations, the auxiliary consumption reported is 33.35MU or 0.5% of the gross generation. However, according to the Association, KSEB Ltd has not furnished the details of auxiliary consumption of all the stations and in the absence of the such details, as per the estimate prepared by the Association, auxiliary consumption is to be limited to 28.86MU and the excess auxiliary consumption of 4.49MU is to be disallowed. Further, KSEB Ltd has accounted 14.14MU as part of the substation auxiliary consumption, which cannot be included under this head. Thus the Association stated that the Commission

should disallow a total 18.63 MU (4.49+14.14MU) from the energy procured from the marginal station.

Provisions in the Regulations

23. Regulation 46 specifies the norms of operation for hydro electric generating stations. Regulation 46(2)(a) specifies the normative auxiliary consumption of twelve existing hydro electric generating stations of KSEB Ltd including the transformation losses.

24. Regulation 46 (2) (a) provides the auxiliary consumption for the major stations as shown below:

> *"46 (2) Auxiliary Consumption for hydro-electric generating stations shall be as specified hereunder:*
>
> *(a) Normative auxiliary consumption of the following existing hydro-electric generating stations of KSEB Limited, including transformation losses shall be as specified in the table below:*

Table

Sl. No.	***Station***	***Type of Station***		***Auxiliary Consumption (%)***
		Surface Hydro / Underground	***Excitation system***	
1	*Idamalayar*	*Surface Hydro*	*Static*	*0.10%*
2	*Idukki*	*Underground*	*Static*	*0.53%*
3	*Kakkad*	*Surface Hydro*	*Rotating*	*0.71%*
4	*Kuttiady*	*Surface Hydro*	*Rotating*	*0.24%*
5	*Lower Periyar*	*Surface Hydro*	*Static*	*0.13%*
6	*Neriamangalam*	*Surface Hydro*	*Static*	*0.18%*
7	*Pallivasal*	*Surface Hydro*	*Brushless*	*1.00%*
8	*Panniar*	*Surface Hydro*	*Static*	*0.53%*
9	*Poringalakuthu*	*Surface Hydro*	*Brushless*	*0.44%*
10	*Sabarigiri*	*Surface Hydro*	*Static*	*0.22%*
11	*Sengulam*	*Surface Hydro*	*Static*	*0.15%*
12	*Sholayar*	*Surface Hydro*	*Brushless*	*0.18%*

Analysis and decision of the Commission

25. In their truing up petition, KSEB Ltd has stated that the gross hydro generation is 6639.02 MU and the auxiliary consumption is 33.35 MU, which is 0.5% of the total hydro generation.

26. Since, KSEB Ltd had furnished only gross figure of auxiliary consumption for the hydro generating stations, the Commission sought the details of actual auxiliary consumption of the hydro stations for the year 2015-16. Vide letter dated 28-5-2018, KSEB Ltd furnished the auxiliary consumption of twelve hydro electric generating stations. Further to this, in the letter dated 6-7-2018, KSEB Ltd stated that the auxiliary consumption of the individual stations include a normative provision for excitation and transformation losses. KSEB Ltd has furnished the total auxiliary consumption for the internal generating stations as given in the Table above.

27. As per the Regulations, the auxiliary consumption for the major stations of SBU-G is estimated as shown below:

Table 8
Auxiliary consumption of stations of SBU-G

Name of the stations	Generation (MU)	Auxiliary consumption allowed as per Regulation	
		%	MU
Kuttiady (Units 1 to 6)	575.89	0.24%	1.38
Sholayar	210.22	0.18%	0.38
Pallivasal	218.60	1.00%	2.19
Sengulam	160.91	0.15%	0.24
Panniar	173.93	0.53%	0.92
Edamalayar	275.76	0.10%	0.28
Idukki	2373.27	0.53%	12.58
Sabarigiri	1168.95	0.22%	2.57
Kakkad	183.64	0.71%	1.30
Poringalkuthu	170.77	0.44%	0.75
PLBE	106.43	0.44%	0.47
Neriamangalam+NES	352.07	0.18%	0.63
Lower Periyar	510.97	0.13%	0.66
Sub Total	6481.41		24.35

28. Thus, the total auxiliary consumption of major stations as per Regulations works out to be 24.35MU.

29. In addition to the above, the auxiliary consumption of other small hydro stations are also to be considered. The norms for the same is not provided in the Regulations. However, as per proviso to Regulation 36, for the purpose of such plants, separate Regulations shall apply. The provisions of the Regulation is quoted below:

> ***"36 Applicability. –*** *(1) The regulations specified in this chapter shall apply to determination of tariff for supply of electricity to the distribution business/licensee by a generating company from conventional sources of*

generation such as coal, gas, liquid fuel and medium as well as large scale hydro-electric plants:

Provided that determination of tariff for supply of electricity to the distribution business/licensee from cogeneration plants, solar plants, small hydro-electric projects, wind energy projects and other renewable energy sources of generation shall be governed by separate Regulations specified by the Commission from time to time:

30. Accordingly the provisions of KSERC (Renewable Energy) Regulations 2015 shall apply to the other small hydro projects. Thus, as per Annexure G and H of the the KSERC (Renewable Energy) Regulations, the auxiliary consumption for the small hydro projects is fixed at 1%.

31. The generation from the small hydro projects is 157.61 MU (6639.02MU-6481.41MU) and the auxiliary consumption applicable to such projects is 1.58MU. Thus the total auxiliary consumption of hydro stations is 25.91MU. Thus, the excess auxiliary consumption is 7.44MU (33.35MU - 25.91MU).

32. Since the energy transferred to SBU-D is lower to the tune of the excess auxiliary consumption of 7.44MU, the cost of the same is deducted at the average cost of generation from SBU-G excluding cost of fuel, in the absence of station wise cost furnished by KSEB Ltd as per Regulations.

Cost of Generation–Diesel Stations

33. In their truing up petition, KSEB Ltd has submitted the generation of power from diesel power generating stations of SBU-G ie., BDPP and KDPP as 145.53 MU. The cost for this power generation is shown as Rs.104.26 lakh. The summary of the generation and cost of power from BDPP and KDPP is shown in the Table below:

Table 9

Generation and Fuel cost of Diesel Power Generating Stations of SBU-G

Month	Actual		
	Quantity (MU)	Rate (Rs/kWh)	Amount (Rs. crore)
BDPP	12.12	10.38	12.58
KDPP	133.41	6.87	91.68
Total	145.53	7.16	104.26

34. In response to the Commissions call for clarifications, KSEB Ltd vide letter dated 28-5-2018 furnished the details regarding auxiliary consumption, station heat rate, NAPAF etc., of the above two diesel power generating stations. KSEB Ltd also submitted that the total fuel cost of LSHS stations was Rs.104.26 crore for

generating 145.53MU. The actual station heat rate furnished by KSEB Ltd for the year 2015-16 is 2189 kcal/kWh for BDPP and 2136 kcal/kWh for KDPP. The actual auxiliary consumption reported for the year for the plants are 8.54% for BDPP and 2.89% for KDPP. Accordingly the average rate per unit as per the Truing up petition for BDPP is Rs.10.38/kWh and Rs.6.87/kWh for KDPP.

35. The Commission has sought the details for the wide variation in the per unit cost between the two diesel power generating stations. In their letter dated 28-5-2018, KSEB Ltd stated as follows:

"Reasons for higher generation cost per unit at BDPP compared to KDPP are due to combination of various factors as submitted below:
The price of LSHS at BDPP is higher than that of KDPP. The machines of BDPP are designed to operate on low sulphur content LSHS fuel procured from Narimanam, Tamilnadu leading to higher landed fuel cost whereas KDPP machines are designed for operation using high sulphur content LSHS which are locally available leading to lower cost of generation. The variation in price of LSHS for these two stations for the year 2015-16 is tabulated below:

Table Comparative price of LSHS per unit

	Unit	*KDPP*	*BDPP*
Generation	*MU*	*133.41*	*12.12*
Qty of LSHS	*MT*	*28723.80*	*2173.38*
Price of LSHS	*Rs.Lakhs*	*8820.81*	*832.04*
Price per MT	*Rs.Lakhs/MT*	*0.30709*	*0.38283*
Price of LSHS/unit	*Rs/unit*	***6.61***	***6.87***

There is no variation in price of HSD per unit of fuel (price per KL) as far as KDPP and BDPP are considered as tabulated below. However, the machines at BDPP were put predominantly for peak hour operations, resulting in higher HSD consumption. Also, from the year 2014-15, the machines were put in service to meet critical contingencies only. <u>Due to limiting the machines to peak load operation only, the usage of HSD is high resulting in higher per unit generation cost for BDPP as tabulated below.</u>

Table 15 C Comparative price of HSD per unit

	Unit	*KDPP*	*BDPP*
Generation	*MU*	*133.41*	*12.12*
Qty of HSD	*KiloLitres*	*111.57*	*865.87*
Price of HSD	*Rs.Lakhs*	*48.38*	*374.33*
Price per KL	*Rs.Lakhs/KL*	*0..434*	*0.432*
Price of HSD/unit	*Rs/unit*	***0.036***	***3.089***

The ratio of usage of LSHS and HSD in 2015-16 at BDPP is 71.50%: 28.50%, whereas at KDPP is 99.6%: 0.4% as detailed below:

Table 15 D Comparative ratio of fuel usage in KDPP and BDPP

	Unit	*KDPP*	*BDPP*
Generation	*MU*	*133.41*	*12.12*
Qty of LSHS	*MT*	*28723.80*	*2173.38*
Price of LSHS	*Rs.Lakhs*	*8820.81*	*832.04*
Price per MT	*Rs.Lakhs/MT*	*0.30709*	*0.38283*
Price of LSHS/unit	*Rs/unit*	***6.61***	***6.87***
Qty of HSD	*KiloLitres*	*111.57*	*865.87*
Price of HSD	*Rs.Lakhs*	*48.38*	*374.33*
Price per KL	*Rs.Lakhs/KL*	*0..434*	*0.432*
Price of HSD/unit	*Rs/unit*	***0.036***	***3.089***
Price with use of LSHS and HSD	*Rs/unit*	***6.648***	***9.954***
Ratio of qty of LSHS: HSD		***99.6%: 0.4%***	***71.5%:28.40%***

In addition, the heat rate of BDPP machines are higher than that of KDPP.(SHR of BDPP for 2015-16 is 2189 Kcal/kwh and that of KDPP is 2136 Kcal/kwh). Due to limiting the machines to peak load operation only, the Station Heat Rate and usage of HSD becomes further higher resulting in higher generation cost for BDPP. "

36. Further, in their additional submissions filed by KSEB Ltd vide letter dated 21-6-2018, they justified the fuel cost incurred for the year 2015-16, stating that these stations were designed as base load stations but from 2014-15, they were mainly used to meet the contingencies in line with the direction of the Commission. Accordingly, the PLF for the year 2015-16 of BDPP was only 2.35% and that of BDPP was 16.34%. Further, these stations were also subjected to frequent starting and stoppage, and to run at part load. Hence, the actual heat rate and auxiliary consumption were high for these stations.

37. KSEB Ltd further submitted that the norms fixed by the Commission in the Regulations were based on the notification of the Ministry of Power (S.O. 251(E) dated 30-3-1992 and CEA (Technical standards for construction of electrical plants and electric lines) Regulations 2010 dated 20-8-2010. The heat rate fixed in these notifications corresponds to plant loading between 70% to 100%. Further, the auxiliary consumption fixed by the Commission in the Regulations was based on the actual auxiliary consumption achieved by these stations in the past years (2006-07 to 2010-11), when these stations were operated at around 70% PLF.

Accordingly, KSEB Ltd requested that above norms cannot be made applicable to the present operations of KDPP and BDPP.

38. KSEB Ltd further submitted that CEA had recommended technical minimum operation for thermal (coal based) plant as 50% of Maximum Continuous Rating (MCR). CERC has observed that the operation at 55% loading has commercial implication for the generator in terms of increase in heat rate, secondary fuel oil consumption and auxiliary energy consumption, consequently increasing actual energy charges. CERC had also acknowledged that the generator will have to be compensated for this increase in energy charges due to low loading.

39. KSEB Ltd in support of the claim, also cited the CERC's Explanatory Memorandum to the draft Indian Electricity Grid Code (forth amendment) Regulations 2015, which says that :

> *"Commission may also allow compensation for increase in station heat rate, secondary fuel oil consumption and auxiliary energy consumption after prudence check on a petition to be filed by the generating company giving requisite details of unit loading, forced outages, planned outages, PLF, generation at generator terminals, energy set out ex-bus basis, actual heat rate, number of start ups, actual secondary fuel oil consumption, actual auxiliary consumption etc."*

40. According to KSEB Ltd while issuing the final CERC (IEGC) (Forth amendment) Regulations, 2016, CERC duly acknowledged the fact that generator should be adequately compensated for the loss of operational parameters due to operation of units at such technical minimum load below the normative operational level of 85%. Further, CERC vide order dated 5-5-2017 has approved a detailed procedure for compensation mechanism for degradation of heat rate, auxiliary consumption and secondary fuel oil for part loading operations whose tariff is determined or adopted by CERC. KSEB Ltd further submitted that since the Regulations does not have any such provisions, there is a requirement for allowing the actual fuel cost of these stations as a pass through item recognizing that the fuel cost of these stations are uncontrollable expenses of KSEB Ltd. KSEB Ltd further requested that, since KSEB Ltd has been limiting the generation from liquid fuel stations as part of reduction of overall cost of generation, actual fuel cost may be allowed as a pass through item by exercising the provisions of Regulation 95.

41. KSEB Ltd in the letter dated 28-5-2018 furnished the split up details of fuel cost which is as shown below:

Table 10

Details of fuel cost of own generating stations

Particulars	KDPP	BDPP	Hydro stations	Total (Rs.lakh)
LSHS (Qty in MT)	28,723.83	2,173.38		
LSHS (Rs in Lakhs)	8,820.81	832.04		9,652.85
HSD (Qty in L)	1,11,570.00	8,65,871.00		
HSD (Rs in Lakhs)	48.38	374.33		422.71
Lubricating oil (Qty in L)	1,32,009.11	36,788.00		
Lubricating oil (Rs in Lakhs)	173.05	51.56	116.95	341.56
Lubricating oil and consumable stores (Rs in Lakhs)	7.56		0.85	8.41
Total cost (Rs in Lakhs)	**9,049.80**	**1,257.94**	**117.80**	**10,425.54**

42. From the above details submitted by KSEB Ltd, the fuel cost of generation for SBU-G claimed is Rs.104.26 crore, which is inclusive of cost of LSHS for the diesel stations and lubricating fuel and cost of consumable for hydro stations.

43. According to KSEB Ltd, the higher cost of BDPP is mainly on account of higher usage of HSD, which is necessitated to operate the plant during peak hours. The Commission notes that the total generation from BDPP is only 12.12 MU in 2015-16, indicating that the plant has been sparingly used as shown below:

Table 11

Actual generation from LSHS Stations for the year 2015-16

	Net Generation from BDPP	Net Generation from KDPP
Month	MU	MU
Apr-15	2.77	19.96
May-15	2.13	14.57
Jun-15	0.15	14.72
Jul-15	0.92	8.59
Aug-15	0.02	9.31
Sep-15	-0.04	32.27
Oct-15	1.37	9.23
Nov-15	0.96	4.41
Dec-15	0.29	2.15
Jan-16	0.92	1.60
Feb-16	-0.03	0.00
Mar-16	2.66	16.58
Total	12.12	133.41

Provisions in the Regulation

44. Regulations 47(5) and 47(8) indicating the normative gross station heat rate and the normative auxiliary consumption fixed for the liquid fuel based generating stations are given in the Table below:

Table 12

Normative gross station heat rate and auxiliary consumption

Station	*Gross Heat rate (kcal/kWh)*	*Auxiliary Energy Consumption (%)*
BDPP	*2000*	*3.87%*
KDPP	*2100*	*1.99%*

Analysis and decision of the Commission

45. It can be inferred from the generation pattern of the two LSHS Stations that, KSEB Ltd did not propose to schedule any power generation from BDPP, and the actual monthly generation in many cases is less than 1 MU, indicating that the plant was not even used for peak hours. KSEB Ltd however, could not justify the operation of the plant for such few hours.

46. Apparently, from the details furnished, the Commission is of the opinion that the operation pattern of the plant resembles more like running the plant for testing purposes. Considering the high cost of operation of the plant for peak hours/limited period, it should have been better to resort to alternative means than running a high cost plant. However, since the plant has been used very sparingly by KSEB Ltd and considering the fact that these power generating assets have to be maintained in a working condition, ***the Commission approves the fuel cost of BDPP ie., Rs.12.57 crore as per KSEB Ltd claim in the truing up petition***.

47. KSEB Ltd in their truing up petition has claimed a total generation of 133.41MU for KDPP. As per the details furnished by KSEB Ltd, the fuel cost based, on the norms given in the Regulations, can be arrived at as follows.

Table 13
Fuel cost for KDPP as per norms

Parameters		KDPP	
	Unit	Actuals	As per Norms
Net Energy	MU	129.55	129.55
Auxiliary Consumption	%	2.89%	1.99%
Gross Energy	MU	133.41	132.18
Gross Heat Rate	kCal/kWh	2136	2100
Average Calorific Value of Fuel (kCal/kg)	kCal/kg	10234.85	10234.85
Fuel Consumption Factor	kg/kWh	0.2087	0.2052
Quantity of fuel used	MT	28,724	27,122
Average Price of Fuel	Rs./MT	30709	30709
Total Fuel cost	Rs. crore	88.21	83.29
Cost of HSD	Rs.crore	0.48	0.48
Cost of lubricant oil etc.	Rs. crore	1.81	1.81
Total Cost of Generation	Rs. crore	90.50	85.58

48. However, KSEB Ltd has furnished detailed reasons justifying the actual fuel expenses for BDPP and KDPP considering the low usage of station to limit the overall fuel expenses. KSEB Ltd has in their reply justified the higher fuel cost due to the frequent start/stop operations and low loading of the machines considering the power demand. KSEB Ltd also mentioned that CERC has also acknowledged the fact that generators are to be adequately compensated for such operations, since under such circumstances, fuel cost is an uncontrollable item for the operator.

49. The Commission examined in detail the reasons furnished by KSEB Ltd above for allowing the actual fuel cost in the truing up process. KSEB Ltd also mentioned that the operational parameters fixed in the Regulations may not be applicable for the specific situations of low usage of these stations. As can be seen from the generation pattern, KDPP was used in the months of April to June and in September and that too not at a full scale. After considering the submissions of KSEB Ltd and the technical limitations of the stations, the Commission is of the considered view that the fuel cost for KDPP can be approved at actual for the year 2015-16.

50. ***Thus, the Commission approves fuel cost of Rs.104.25 crore for the year 2015-16 as per the truing up petition.***

O&M expenses

51. KSEB Ltd in their truing up petition has claimed Rs.184.50 crore as the O&M expenditure for SBU-G for the existing stations. The component wise expenditure claimed by KSEB Ltd is shown in Table below;

Table 14

Components of O&M cost of SBU-G

Sl No	Particulars	Amount (Rs crore)
1	Employee Cost	142.17
2	A&G Expenses	16.31
3	R&M Expenses	26.02
	Total	184.50

52. KSEB Ltd in their Truing up petition also submitted that four new small hydro generating stations having an aggregate installed capacity of 21 MW was commissioned during the financial year. KSEB Ltd stated that O& M expenditure of these stations may be allowed in addition to the normative O&M charges as per Regulations.

Employee Cost

53. KSEB Ltd in their truing up petition has claimed the employee expenses of SBU-G as Rs.142.17 crore. including Rs. 17.91 crore on account of pay revision arrears for the period 2015-16 and terminal benefits of Rs.40.61 crore. The employee cost excluding terminal benefits is Rs.101.56 crore. The split up details of employee expenses submitted by KSEB Ltd is given below:

Table 15

Split up details of employee cost and provisions for 2015-16

SL No.	Particulars	Amount (Rs. crore)	
		SBU G	KSEB Ltd
1	2	3	4
1	Basic Salary	55.91	811.16
2	Dearness Allowance (DA)	64.28	930.45
3	House Rent Allowance	0.77	18.57
4	Conveyance Allowance	0.00	0.00
5	Leave Travel Allowance	0.00	0.00
6	Earned Leave Encashment	10.11	147.28
7	Other Allowances	3.06	23.03
8	Medical Reimbursement	0.50	8.52

SL No.	Particulars	Amount (Rs. crore)	
		SBU G	KSEB Ltd
9	Overtime Payment	0.19	0.23
10	Bonus/Ex-Gratia Payments	0.39	8.26
11	Staff welfare expenses	0.09	1.89
12	Payment under Workmen's Compensation Act	0.00	0.08
13	Terminal Benefits	40.61	1004.69
14	Others	0.02	0.22
15	Gross Employee Expenses	175.92	2954.37
16	Net provisions (Pay Revision)	17.91	338.46
17	Balance	193.83	3292.83
18	Less: Expenses Capitalized	51.66	188.29
19	Net Employee Expenses	142.17	3104.54

54. The total employee expenses including terminal benefits booked is Rs.142.17 crore out of the total Rs.3104.54 crore for KSEB Ltd. The net provision for pay revision is Rs.17.91 crore for SBU-G out of Rs.338.46 crore for KSEB Ltd.

Judgment of High Court in Writ Petition WPC No.465/2015(G)

55. As mentioned in Chapter 1, after the notification of the Regulations, KSEB Ltd challenged the validity of the said Regulations before the Hon'ble High Court of Kerala in the Writ Petition WPC No.465/2015(G). The main contention of KSEB Ltd was that the O&M norms for determining the expenditure specified in the Regulations are inadequate, resulting in under recovery of its expenses. Hon'ble High Court on 28-02-2018 issued the final judgment and disposed of the petition WP(C) 465/2015, directing the Commission to pass order on the application of the petitioner KSEB Ltd for truing up of accounts for the years 2015-16, 2016-17, 2017-18 with due regards to the findings in APTEL Judgments in Appeal Nos. 1 and 19 of 2013 and consequential orders passed by the Commission for 2010-11 onwards, in the case of KSEB Ltd. The relevant portion of the judgment of the Hon. High Court is quoted below:

> *"In view of the submission made by learned senior counsel that the Commission would take into account Ext.P6 judgment of the APTEL while taking up the applications for truing up of accounts, I direct the 1st respondent to pass orders on the applications of the petitioner for truing up of accounts for the year 2015-16, 2016-17, and in 2017-18 with due regard to the findings in Ext.P6 judgment and the consequential orders passed by the commission for the year 2010-11 onwards in the case of petitioner."*

56. In order to comply with the Hon'ble High Court direction, the Commission sought clarifications from KSEB Ltd for implementing the judgment of Hon. High Court. KSEB Ltd in their submission dated 28-5-2018 furnished the methodology to be adopted for estimating the O&M expenses as per the Judgment of Hon.High Court. The proposal of KSEB Ltd is given below:

"1. The Tariff Regulations, 2014 O&M norms were framed from single year value (that is 2010-11). Instead of that year, the trued up value for more recent FY 2013-14 as per order (dated 20.06.2017) may be taken as the base year, in line with Tariff policy and regulations. The pay revision provision may be deducted from the trued-up value and the balance figure be apportioned to the three SBUs based on the allocation factors as per Statement 6 adopted in the Tariff Regulations, 2014. The base values, then, may be normalized with the asset parameters adopted in the Tariff Regulations, 2014.

2.CERC methodology may be adopted for arriving at the escalation factor. The actual increase in normalized O&M cost for the period 2009-10 to 2013-14 be analyzed and an efficiency factor of 1% be adopted on the actual O&M. This efficiency factor of 1% is deducted from the actual rate of increase in O&M for arriving at the applicable escalation factor. The escalation factor for Generation, Transmission and Distribution computed as above are Generation : 10%, Transmission: 15% and Distribution : 6.36%. The above escalation percentages are then adopted for escalating the 2013-14 values to 2015-16, 2016-17 and 2017-18.

3.The O&M norms for Generation, Transmission and Distribution so arrived for the years 2015-16, 2016-17 and 2017-18 are given in the table below.

Table 1 : O&M Cost norms for SBUs			
Generation			
Financial Year	*2015-16*	*2016-17*	*2017-18*
	99.01	*108.91*	*119.80*
Transmission			
Financial Year	*2015-16*	*2016-17*	*2017-18*
Rs.Lakh/bay	*8.07*	*9.28*	*10.67*
Rs.Lakh/Ckt-km	*0.89*	*1.02*	*1.18*
Distribution			
Employee Cost			
Financial Year	*2015-16*	*2016-17*	*2017-18*

Rs.Lakh'000 consumer	*3.55*	*3.78*	*4.02*
Rs.Lakh/dist transformer	*0.49*	*0.52*	*0.56*
Rs.Lakh/HT line	*0.59*	*0.62*	*0.66*
Rs/unit	*0.15*	*0.16*	*0.17*
Administrative & General Expenses			
Financial Year	*2015-16*	*2016-17*	*2017-18*
Rs.Lakh'000 consumer	*0.25*	*0.26*	*0.28*
Rs.Lakh/dist transformer	*0.03*	*0.04*	*0.04*
Rs.Lakh/HT line	*0.04*	*0.04*	*0.05*
Rs/unit	*0.01*	*0.01*	*0.01*
***R&M Cost :** 3% of GFA*			

4.Pay revision expenses chargeable for the year 2015-16 may be added over and above the normative O&M cost.

5.Thus the O&M Cost thus calculated as per the above norms and the pay revision expenses actually charged for the year 2015-16 is as tabulated below:

Table-2: O&M cost proposed for 2015-16 (Rs. crore.)				
Item	*O&M as per proposed norms*	*Pay revision*	*Total*	*Actual O&M expenses as per truing up petition (excl terminal benefits)*
Generation	*99.01*	*9.61*	*108.62*	*143.90*
Transmission	*276.96*	*15.43*	*292.39*	*353.79*
Distribution				
Employee Cost	*1372.51*	*184.27*	*1556.78*	*1733.10*
A&G Cost	*95.61*		*95.61*	*149.79*
R&M Cost	*182.84*		*182.84*	*185.82*
Total	*2026.93*	*209.31*	*2236.24*	*2566.40*

57. As shown above, according to KSEB Ltd, the O&M expenses would work out to Rs.2236.24 crore if the judgment of Hon. High Court is complied with. Out of this, employee cost is Rs.1957.79 crore (Rs.108.62 crore + Rs.292.39 crore+Rs.1556.78 crore). In the above working, KSEB Ltd has recalculated the norms for determination of O&M expenses considering the actual escalation in O&M expenses rather than the escalation factor used in the Regulations. KSEB Ltd also considered the provision for pay revision separately.

58. KSEB Ltd in their letter dated 28-5-2018 had also submitted that since the agreements with the recognized trade unions are to be honoured and considering

the fact that substantial increase in physical assets are to be managed, the actual employee cost and terminal benefits may be allowed in the truing up.

59. Further to the above, in the letter dated 7-6-2018, KSEB Ltd further clarified that the provision for pay revision given in 2015-16 is inclusive of the shortfall in this provision in accounts for the years 2013-14 and 2014-15. The truing up petitions for 2013-14 and 2014-15 was filed on the basis of audited accounts, and since the implementation of the pay revision occurred during 2015-16, the actual impact of the pay revision was not captured in the previous years accounts. Hence, KSEB Ltd requested to consider the provision of Rs.339.00 crore made as per the accounts for 2015-16, while truing up the employee costs. If the claim of provision for pay revision of Rs.339 crore for the year 2015-16 is considered instead of the earlier claim of Rs.209.31, the employee cost sought for the year will be Rs.2365.93 crore (2236.24 crore - 209.31crore + 339 crore).

60. Since the reply furnished by KSEB Ltd was not in line with the directions of APTEL, the Commission in its letter dated had again sought from KSEB Ltd the details for calculating employee cost as per the directions of APTEL in its order in Appeal Nos. 1 and 19 of 2013. KSEB Ltd in its reply furnished vide letter dated 10-7-2018 details of the employee cost booked during the year 2015-16 in respect of those who are recruited after 1-4-2009. KSEB Ltd stated in their letter dated 10-7-2018 that in order to determine the salaries and allowances actually disbursed in 2015-16 to employees recruited after 1-4-2009 (8899 nos in total for March 2016), the details were extracted from the HRIS software, which works out to Rs.288.10 crore. However, the employee strength in 2016 was 32440 employees and the no.of employees exceeded from the level at the 2008-09 (27175) was 5265nos. The balance employees (8899-5265) were replaced for the retired employees. Thus the pro-rata employee expenses including other expense attributable to 5265 employees is Rs.170.45 crore.

61. KSEB Ltd further stated that Hon. APTEL has ordered to allow pay and allowances for at least for the strength as on 1-4-2009 and it is not a ceiling limit. Further, revision of other allowances forms an integral part of the agreements reached between the management and trade unions as envisaged in the APTEL Order in Appeal 1 and 19 of 2013.

62. In respect of pay revision expenses, KSEB Ltd in their additional submissions dated 21-6-2018 furnished that of the provision of Rs.339 crore for pay revision, Rs.31.93 crore is attributable to employees recruited after 2009.

63. Thus according to KSEB Ltd, the cost attributable to increased staff strength in 2016 over 2009 inclusive of pay revision benefits works out to Rs.202.38 crore (Rs.170.45 crore+Rs.31.93 crore).

Objection of the Stakeholders

64. Shri. Dijo Kappan mentioned that the O&M expenses of KSEB Ltd is very high compared to other States. KSEB Ltd should resort to futuristic measures for procurement of power. Shri. Ragunathan, FEEC, mentioned that CERC norms should be made applicable to KSEB Ltd.Sri. Jayaprakash mentioned that since number of consumers is increasing the total number of employees should also increase and the claims of KSEB Ltd may be approved. HT-EHT Association stated that IIM report should be implemented. Dr. Vijayakumar, in his representation mentioned measures for reducing the employees and extravagant expenses.

Provisions in the Regulations

65. The provisions regarding O&M expenses given under Regulations 44 are as shown below:

> ***44. Operation and maintenance expenses. –*** *(1) (a) In the case of existing generating stations, the generation business of KSEB Limited shall be allowed to recover operation and maintenance expenses for each financial year of the first control period, as per the norms specified in Annexure-VII to these Regulations:*
>
> *(b) The generation business of KSEB Limited shall, subject to prudence check by the Commission, be allowed to recover, in addition to the above specified normative operation and maintenance expenses, the annual pension contribution to the Master Trust, based on actuarial valuation in respect of the personnel allocated to the generation business of KSEB Limited.*

Annexure-VII

O&M norms for existing generating stations of generation business of KSEB Limited

Particulars (Rs. crore)	***FY 2015-16***	***FY 2016-17***	***FY 2017-18***
Employee expenses	*45.01*	*47.65*	*50.43*

Analysis and decision of the Commission

66. KSEB Ltd in their truing up petition has sought Rs.142.17 crore towards employee expenses of SBU-G, which is inclusive of Rs.40.61 crore terminal benefits. The net employee cost excluding terminal benefits is Rs.101.56 crore for SBU-G, which is 4.84% of the total employee expenses of Rs.2100.04 crore excluding terminal benefits for KSEB Ltd.

67. As per the provisions of the Regulations, the generation business (SBU-G) was entitled for employee expenses as per norms for 2015-16 for the existing stations. However, after the notification of the Regulations, KSEB Ltd challenged the validity of the said Regulations before the Hon'ble High Court of Kerala in the Writ Petition WPC No.465/2015(G). In the said writ petitions, the main contentions of KSEB Ltd was that the Commission while specifying the Regulations, has deviated from the scheme of the Electricity Act 2003 and findings of the judgment of the APTEL in Appeal Nos. 1 and 19 of 2013 has not reflected in the Regulations. Further the approval of accounts by the Commission under the Regulations would result in under recovery of reasonable costs through tariff. It was also pointed out before the Hon.High Court that truing up of accounts for the year 2014-15 onwards are also considered in the light of the revised orders passed for the year 2010-11 onwards in tune with the judgments of the APTEL, the difficulties faced by the petitioners on account of the Regulations would be redressed to some extent. The Commission had submitted before the Hon High Court that while taking up the truing up applications of the petitioner for the years 2015-16, 2016-17 and 2017-18, the Commission would take into account the judgment of the APTEL and the consequential orders passed thereafter.

68. In the light of the submissions of the parties, Hon. High Court in the judgment dated 28-2-2018, directed the Commission to pass appropriate orders on the truing up applications of KSEB Ltd for the year 2015-16 to 2017-18 with due regard to the finding of the Orders of the APTEL in Appeal Nos. 1 and 19 of 2013 and also the consequential orders on Truing up passed for the years 2010-11 onwards. Thus, the Commission decides to approve the employee cost of KSEB Ltd as per the direction of the Hon. High Court of Kerala, with reference to the Order of APTEL in Appeal Nos. 1 and 19 of 2013.

69. Hon'ble APTEL vide the common judgment dated 10-11-2014 had decided on the issues raised in the Appeal Nos. 1 of 2013 and 19 of the 2013. In their appeal before the Hon'ble APTEL, against the order dated 30-10-2012 on the truing up of accounts of KSEB for the year 2010-11 and the order dated 28-4-2012 on the ARR&ERC of KSEB for the year 2012-13 had raised a number of common issues including i) Employees cost ii) Repair and Maintenance Expenses iii)

Administrative and General Expenses iv) Return on Equity v) Depreciation vi) Capitalization of Expenses. Here we examine the decision regarding O&M expenses ie., employee cost, R&M expenses & A&G expenses.

70. Paragraph 8.3 to 8.6 of judgment of Hon'ble APTEL pertains to the observation and directions regarding the employee cost and related matters, which are extracted below.

> *"8.3 We find that the State Commission in the impugned order dated 28.04.2012 has shown concern about the high employees cost and non-compliance of the directions given by the State Commission in this regard. The State Commission has noted that without a scientific study on manpower requirements, the recruitments are continuing and about 1000 persons are added every year. The State Commission has decided to benchmark employees expenses based on the base year expenses escalated at price indices. The State Commission has used FY 2008-09 as the base year since latest true-up was carried out for 2008-09. The State Commission provided 3% increase in basic pay for accounting for increments. The other components are benchmarked based on CPI/WPI indices with weightage of 70:30 for estimating the increase in employees cost. Thus, while basic pay was increased by 3% the other components of employees expenses viz. DA allowances, terminal benefits, pay revision, etc., were increased as per CPI/WPI indices with weightage of 70:30 (CPI:WPI).*
>
> *8.4 The State Commission has rightly shown concern about the high employees cost but we are not able to appreciate magnitude in the absence of a specific finding about the excess manpower and non-availability of Regulations. We feel that DA increase which is effected as per the Government orders have to be accounted for and allowed in the ARR as it compensates the employees for the inflation. The pay revision as per the agreements reached between the management and the unions have also to be honoured. The terminal benefits have also to be provided for.*
>
> *8.5 We find that the State Commission has taken the actual expenses trued-up for FY 2008-09 as the base. The State Commission should have at least allowed the actual basic pay and DA increase, pay revision and terminal benefits over the actual base year expenses without accounting for increase in manpower from 2008-09 to 2012-13. The gratuity directed to be paid as per the judgments of the High court dated 10.03.2003 as the Division bench of the High Court had dismissed the Appeal filed against this judgment, and which were disallowed by the State Commission by order in Appeal no. 1 of 2013 should also be allowed.*

8.6 Accordingly, we direct the State Commission to true-up the employees cost from FY 2010-11 to FY 2012-13, as per the above directions.

………………………………..
………………………………..

iv) The State Commission also conducted examination of Repair and Maintenance expenses of one of the Divisions of the Board through its staff in order to understand the nature of increase in Repair and Maintenance expenses and found that 36% of the expenses booked as Repair and Maintenance expenses were misclassified as revenue expenses.

9.6 In view of above findings of the State Commission, we do not incline to interfere with the findings of the State Commission. Thus, this issue is decided against the Appellant.
………………………………..
………………………………..

10.3 We find that the State Commission has allowed escalation on the basis of CPI & WPI indices with weightage of 70:30 over the actual A&G expenses for FY 2008-09. The Appellant Board has not been able to give a satisfactory reply to the substantial increase in A&G expenses.

10.4 We do not find any infirmity in the findings of the State Commission."

71. It is clear from the above judgment of Hon'ble APTEL, regarding employee cost, the Commission shall at least allow actual basic pay and DA increase, pay revision and terminal benefits over the actual base year expenses without accounting for increase in manpower from 2008-09 to 2012-13.

72. Regarding R&M expenses, Hon'ble APTEL has remarked that "in view of above findings of the State Commission, we do not incline to interfere with the findings of the State Commission. Thus, this issue is decided against the appellant". As far as KSEB Ltd prayer regarding increase in allowing A&G expenses beyond Regulations norms, Hon'ble APTEL had stated that :

"we find that the State Commission has allowed escalation on the basis of CPI & WPI indexes with weightage of 70: 30 over the actual A&G expenses for FY 2008-09. The Appellant Board has not been able to give a satisfactory reply to the substantial increase in A&G expenses. We do not find any infirmity in the findings of the State Commission."

73. A combined reading of the Judgment of the Hon.High Court and Hon. APTEl, it can be inferred that in the case of employee costs, *the actual basic pay and DA thereon, pay revision and terminal benefits over the actual base year expenses for the level of employees during the year 2008-09, should be provided for*. Further, the terminal benefit paid is also required to be allowed in full. Hence, the provisions of the Regulations regarding employee costs are in fact modified to this effect. However, in the case of R&M and A&G expenses, since the decision of the Commission has been upheld, the provisions of the Regulations will stay.

74. In the light of the Orders of the APTEL in Appeal Nos 1 and 19 of 2013 and the consequential petitions for truing up for 2009-10 and 2010-11 and truing up for the years 2011-12, 2012-13 and 2013-14, the Commission has approved the employee cost of KSEB Ltd without considering the increase in the manpower from 2008-09. Based on the details furnished by KSEB Ltd, the Commission has approved the employee cost for the respective year after deducting the cost of additional employees from 2008-09 level.

75. Based on above decisions, the Commission has examined the proposal of KSEB Ltd regarding the approval of employee cost under O&M expenses as per the judgment of Hon. High Court. The Commission notes that KSEB Ltd in their proposal furnished vide clarifications dated 28-5-2018 has applied the actual increase in O&M expenses which are not in line with the orders of the APTEL. Hence, the Commission cannot consider the proposal of KSEB Ltd furnished vide letter dated 28-5-2018 as such.

76. Subsequent to this, in reply to the clarification sought by the Commission dated 6-7-2018, KSEB Ltd vide letter dated 10-7-2018 has furnished the actual disbursement of pay and allowances and pay revision expenses of the employees recruited after 2009. The total addition to the employees from 2009 was 8899. KSEB Ltd has also stated that the strength of employees in 2016 was 32440 and that in 2009 was 27175. Thus net the increase in employee strength is 5265, considering the retirements. As per the details furnished by KSEB Ltd, the total amount disbursed for 2015-16 excluding pay revision was Rs.288.10 crore for the 8899 employees recruited after 1-4-2009 and Rs.170.45 crore for the net increase in employees (5265 nos) from 2009 (32440-27175). The pay revision expenses relating to these 5265 employee is reported as Rs.31.93 crore. Thus the total disbursements including pay revision for the increase in employees of 5265 over 2009 levels is Rs.202.38 crore (Rs.170.45 crore+Rs.31.93 crore).

77. In compliance of the orders of Hon. APTEL, employee expenses without accounting for the increase in manpower from 2008-09 can be arrived at by

deducting this employee expenses of the net increase in additional employees from the 2009 level, from the total employee cost for the year. Thus, as mentioned above, the total employee cost excluding terminal benefits is Rs.2100.04 crore. As per the details furnished by KSEB Ltd in its letter dated 10-7-2018, the employee cost of additional employees is Rs.202.38 crore. Hence, the allowable expenses excluding terminal benefits for KSEB Ltd is Rs.1897.66 crore (2100.04crore - 202.38crore). On a pro-rata basis, the employee cost for SBU-G will be 4.836% of Rs.1897.66 crore ie., Rs.91.77 crore if determined as per the directions of the Hon APTEL and judgment of Hon. High Court of Kerala as shown below.

Table 16
Approved employee cost for SBU-G

	SBU-G (Rs. crore)	KSEB Ltd (Rs. crore)
Employee Cost as per Accounts/Petition	142.17	3,104.53
Less Terminal Benefits	40.61	1,004.50
Net Employee costs as per petition	**101.56**	**2,100.04**
Net employee cost of SBU-G as a percentage of KSEB Ltd	4.836%	
Net cost of additional employees as per the letter dated 10-7-2018		202.38
Balance Employee cost		1,897.66
Employee cost attributable to SBU-G (1897.65 crore x 4.84%)	**91.77**	

78. The total employee cost excluding terminal benefits approved is as shown below:

Table 17
Employee Cost approved for SBU-G for 2015-16

	As per Petition (Rs. crore)	Approved (Rs. crore)
Employee Costs (excluding terminal benefits)	101.56	91.77

79. ***The total employee cost excluding terminal benefits approved for SBU-G for 2015-16 is Rs.91.77 crore.***

Repair & Maintenance Expenses (R&M)

80. KSEB Ltd in their truing up petition has claimed the R&M expenses of SBU-G as Rs.26.02 crore, Split up details of R&M expenses of SBU-G as furnished by KSEB Ltd vide their letter dated 28-5-2018 is given below:

Table 18
Split up details of R&M expenses for SBU-G

Particulars	SBU-G Rs. crore
Plant & Machinery	14.89
Buildings	2.40
Civil Works	3.37
Hydraulic Works	4.25
Lines & Cable Networks	0.05
Vehicles	0.56
Furniture & Fixtures	0.04
Office Equipment	0.24
Gross R&M Expenses	25.79
Less: Provision utilized	0.59
Add: Provision created	0.82
Less: Expenses Capitalized	0.00
Net R&M Expenses	**26.02**

81. KSEB Ltd in their truing up petition stated that the business activity of KSEB Ltd has been continuously increasing over several decades. The average growth in respect of the number of consumers, their electricity requirement and fixed assets during the last 10 years has been 3.65%, 7.56% and 9.61% respectively. Correspondingly the physical assets of KSEB Ltd have also increased substantially.

82. KSEB Ltd further stated that the total actual R&M expenses increased by just 6.27% over 2014-15 level of expenses (Rs.244.22 crore) and which corresponds to the inflationary trends. The 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. KSEB Ltd stated that the function wise breakup of R&M expenses as a percentage of GFA works out to just 0.64% for SBU-G as given below.

Table 19
R&M expenses as a % of GFA

Particulars	GFA at the beginning of the Year 2015-16	R&M Expenses 2015-16	R&M Expenses as a % of GFA 2015-16	Functional GFA as a % of total GFA for 2015-16
	(Rs.crore)	(Rs.crore)	%	%
SBU-G	4033.36	26.02	0.64	27.40
SBU-T	3844.45	47.34	1.23	27.07
SBU-D	6325.64	186.50	2.95	44.53
Total	14203.45	259.76	1.83	100.00

83. Thus, KSEB Ltd in their truing up petition claimed Rs.26.02 crore as R&M expenses towards SBU-G.

Provisions in the Regulations

84. As per Regulation 44, O&M expenses of existing generating stations of SBU-G are to be determined as shown below:

> *44.* ***Operation and maintenance expenses. –*** *(1) (a)In the case of existing generating stations, the generation business of KSEB Limited shall be allowed to recover operation and maintenance expenses for each financial year of the first control period, as per the norms specified in Annexure-VIIto these Regulations:*
>
> *(b) The generation business of KSEB Limited shall, subject to prudence check by the Commission, be allowed to recover, in addition to the above specified normative operation and maintenance expenses, the annual pension contribution to the Master Trust, based on actuarial valuation in respect of the personnel allocated to the generation business of KSEB Limited.*

85. As per Annexure VII of the Regulations, the norms for allowing R&M expenses for the control period have been specified as shown below:

Annexure-VII

O&M norms for existing generating stations of generation business of KSEB Limited

Particulars (Rs. crore)	***FY 2015-16***	*FY 2016-17*	*FY 2017-18*
Repair & maintenance expenses	***18.73***	*19.83*	*20.99*

Analysis and findings of the Commission

86. KSEB Ltd had claimed Rs.26.02 crore towards R&M expenses. As per the provisions of the Regulations, the allowable R&M expenses for SBU-G for the existing generating stations is Rs.18.73 crore as against the claim of Rs.26.02 crore. As explained in above, there is no adjustment required in the case of R&M expenses or A&G expenses in light of the judgment of Hon. High Court of Kerala as well as Hon APTEL. Since R&M expense is a controllable item and the amount is specified in the Regulations, the same can only be allowed.

87. Thus the R&M expenses approved for the year 2015-16 for SBU-G is as shown below:

Table 20
Approved R&M Expenses for SBU-G 2015-16

	As per Petition (Rs.crore)	Approved (Rs. crore)
R&M Expenses	26.02	18.73

88. ***Hence, the Commission approves the R&M expenses of Rs.18.73 crore as per the provisions of the Regulations for the purpose of Truing up for the existing generations of SBU-G.***

Administration and General (A&G) expenses

89. KSEB Ltd in their truing up petition had claimed A&G expense of Rs.16.31 crore. In the clarification dated 28-5-2018 KSEB Ltd had provided the split up details of A&G expenses as shown below:

Table 21
A&G expenses under SBU-G

Sl no	Items	SBU-G (Rs. crore)	KSEB Ltd (Rs. crore)
1	Rent Rates & Taxes	0.42	7.57
2	Insurance	0.04	0.25
3	Telephone & Postage, etc.	0.18	3.93
4	Legal charges	0.34	2.13
5	Audit Fees	0.01	0.19
6	Consultancy charges	0.03	0.09
7	Other Professional charges	0.35	1.13
8	Conveyance	3.21	56.07
9	Vehicle Running Expenses Truck / Delivery Van	0.04	0.83
10	Vehicle Hiring Expenses Truck / Delivery Van	0.00	2.41
11	Electricity charges	0.10	6.57
12	Water charges	0.00	0.37
13	Entertainment	0.06	0.56
14	Fees & subscription	0.33	0.63
15	Printing & Stationery	0.36	10.71
16	Advertisements, exhibition publicity	0.32	1.30
17	Contribution/Donations	0.32	1.20
18	Training expenses	0.72	2.58
19	Miscellaneous Expenses	0.51	5.06
20	DSM activities	0.00	0.01
21	SRPC expenses	0.12	0.38

Sl no	Items	SBU-G (Rs. crore)	KSEB Ltd (Rs. crore)
22	Sports and related activities	0.11	0.36
23	Freight	0.41	10.11
24	Purchase Related Advertisement Expenses	0.51	1.46
25	Bank Charges	0.00	0.06
26	Office Expenses (Operating Expenses)	5.77	91.84
27	License Fee and other related fee	1.30	3.80
28	Cost of services procured	0.00	0.00
29	Outsourcing of metering and billing system	0.00	0.00
30	V-sat, Internet and related charges	0.00	0.14
31	Security arrangements	0.00	0.00
32	Books & periodicals	0.02	0.05
33	Computer Stationery	0.00	0.00
34	Others	0.34	0.95
	Others- Other Purchase related Expenses	0.55	3.33
	Others - Expenditure in connection with distribution of LED	3.00	12.89
35	Gross A&G Expenses	19.48	228.96
36	Ele. Duty u/s 3(I), KED Act		111.37
37	Less: Provisions utilized	1.37	4.39
38	Add: Provisions created	2.54	8.13
37	Less: Expenses Capitalized	4.33	16.21
38	Net A&G Expenses	16.31	327.86

Provisions in the Regulation

90. As per Regulation 44, O&M expenses of existing generating stations of SBU-G are to be determined as shown below:

> *44. **Operation and maintenance expenses. –** (1) (a)In the case of existing generating stations, the generation business of KSEB Limited shall be allowed to recover operation and maintenance expenses for each financial year of the first control period, as per the norms specified in Annexure-VIIto these Regulations:*
>
> *(b) The generation business of KSEB Limited shall, subject to prudence check by the Commission, be allowed to recover, in addition to the above specified normative operation and maintenance expenses, the annual pension contribution to the Master Trust, based on actuarial valuation in respect of the personnel allocated to the generation business of KSEB Limited.*

91. As per Annexure VII of the Regulations, the norms for allowing A&G expenses for the control period have been specified as shown below:

<u>Annexure-VII</u>

<u>O&M norms for existing generating stations of generation business of KSEBL</u>

Particulars (Rs. crore)	***FY 2015-16***	*FY 2016-17*	*FY 2017-18*
Administrative & general expenses	***4.34***	*4.59*	*4.86*

Analysis and decision of the Commission

92. As per the provisions of the Regulations, the allowable A&G expenses for SBU-G for the existing generating stations is Rs.4.34 crore against the claim of Rs.16.31 crore. As explained above, there is no adjustment required in the case of A&G expenses in light of the judgment of Hon. High Court of Kerala as well as Hon APTEL. Since A&G expense is a controllable item and the amount is specified in the Regulations, the same only can be allowed. The A&G expenses approved is as shown below:

Table 22

A&G Expenses for SBU-G for 2015-16

	As per Petition (Rs.crore)	Approved (Rs. crore)
A&G expenses	16.31	4.34

93. ***Hence, the Commission approves the A&G expenses of Rs.4.34 crore as per the provisions of the Regulations for the purpose of Truing up for the existing generations of SBU-G.***

O&M expenses for new Generating Stations

94. In addition to the above, KSEB Ltd also submitted that four hydro stations were commissioned after the 31-3-2014. The O&M costs of these four plants are to be allowed in addition to the normative O&M cost considered in the regulations. The details of new hydro stations commissioned as per the petition are shown below:

Table: 23

Details of new small hydro stations commissioned after 31-3-2014

Project	CoD	Capacity (MW)	Energy (MU)
Vilangad	26-07-2014	7.5	22.53
Chimmony	22-05-2015	2.5	6.70
Adyanpara	03-09-2015	3.5	9.01
Barapole	29-02-2016	15	36.00
Total		21	51.71

95. Regulations 44(2) requires that the O&M expenses of new generating stations be determined based on the capital cost. In response to the Commission query, KSEB Ltd vide letter dated 28-5-2018 furnished details of the capital cost of these projects as shown below:

Table:24

New generating stations commissioned after Nov 2014

Particulars	**Adyanpara SHEP**	**Barapole SHEP**	**Chimmony SHEP**	**Poringalkuthu Micro HEP**
Installed capacity	3.5 MW	15 MW	2.5 MW	11 KW
Scheduled energy	9.01 MU	36 MU	6.7 MU	0.082 MU
Capital cost	Rs. 28.56 crore	Rs. 138.44 crore	Rs. 23.45 crore *	Rs. 0.38 crore
Source of funding	Own fund & MNRE grant	Own fund & MNRE grant	Own fund & MNRE grant	Innovation fund & MNRE fund.
Date of completion	03.09.2015	29.02.2016	22.05.2015	06.02.2016
Sanctioned cost	Rs. 28.56 crore	Rs. 138.44 crore	Rs. 23.45 crore *	Rs. 0.38 crore
Actual cost & IDC	Rs. 34.00 crore	Rs. 140.98 crore.	Rs. 22.82 crore.	Rs. 0.38 crore.
Time & cost over run		Delay in handing over of land, change in size of PH, geological surprise, flood, land slip and public protest against blasting.		
*@ 2010 price level				

96. While submitting the above details, project cost of Vilangad SHP was not furnished by KSEB Ltd. Subsequently in the letter dated 7-6-2018, KSEB Ltd stated that Vilangad project was also commissioned in the year 2014 and the capital cost of the project of Rs.75.83 crore should also be considered while considering the new projects.

Provisions in the Regulations

97. Regulation 44(2) provides for O&M expenses of new generating stations :

> *"44 (2) In the case of new generating stations, the generating company shall be allowed to recover during the first control period, the operation and maintenance expenses as specified hereunder,-*
> *a) the operation and maintenance expenses in the first year of operation shall be two percent of the original project cost (excluding cost of rehabilitation and resettlement works); and*
> *(b) the operation and maintenance expenses for each subsequent financial year of the first control period shall be determined by*

escalating at the rate of 5.85 percent of the operation and maintenance expenses for the first year as determined above."

98. Proviso to Regulation 36(1) states as shown below:

> *36. Applicability. – (1) The regulations specified in this chapter shall apply to determination of tariff for supply of electricity to the distribution business/licensee by a generating company from conventional sources of generation such as coal, gas, liquid fuel and medium as well as large scale hydro-electric plants:*
>
> *Provided that determination of tariff for supply of electricity to the distribution business/licensee from cogeneration plants, solar plants,* ***small hydro-electric projects, wind energy projects and other renewable energy sources of generation shall be governed by separate Regulations specified by the Commission from time to time****:"*

Analysis and decision of the Commission

99. In their truing up petition, KSEB Ltd has stated that four new generating stations have been commissioned after the notification of the Regulations. Further to this, as part of the clarifications dated 28-5-2018 and 7-6-2018, the KSEB Ltd furnished the details of five new stations. According to KSEB Ltd, in addition to the existing stations O&M expenses have to be allowed for new generating stations which are commissioned after coming into force of the Regulations.

100. As mentioned above, Regulation 44 (2) permits the O&M expenses of new generating stations at 2% of the original capital costs, excluding the cost of rehabilitation and resettlement works. KSEB Ltd in its petition and further submissions dated 28-5-2018 has stated that five generating stations have been commissioned after the notification of the Regulations as shown below:

Table 25

Details of new generating stations

Project	CoD	Capacity (MW)	Energy (MU)	Project Cost (Rs. crore)	Cost/MW (Rs. crore)
Vilangad	26-07-2014	7.50	22.53	75.83	10.11
Chimmony	22-05-2015	2.50	6.70	23.45	9.38
Adyanpara	03-09-2015	3.50	9.01	28.56	8.16
Barapole	29-02-2016	15.00	36.00	138.44	9.23
Poringalkuthu micro		0.11	0.08	0.38	3.45

101. As shown above, the cost per MW of the projects ranges from Rs.3.45 crore to Rs.10.11 crore. Since the O&M expenses are benchmarked against the capital cost, Regulation 44 (2) (a) shall govern the calculation of this cost. In this case a uniform approach is not possible for allowing the O&M expenses for new stations. Hence, as per proviso to Regulation 36, the provisions of KSERC (Renewable Energy) Regulations 2015 govern the tariff determination for small hydro projects. *Since the new projects are under small hydro category, the benchmark O&M expense as per the KSERC (Renewable Energy) Regulations 2015 is used for allowing O&M expenses for new generating stations*.

102. As per Annexure H of KSERC (Renewable Energy) Regulations 2015, the O&M expenses for SHPs having installed capacity below 5MW is Rs.23.63 lakh per MW and that of projects of and above 5MW and upto and including 25 MW is Rs.16.54 lakh/MW. Based on the above provision the O&M expenses for the new stations are estimated as shown below:

Table 26

O&M expenses for new generating Stations

	Capacity (MW)	O&M Cost/MW (Rs. Lakhs)	O& M Expenses (Rs. crore)
1	2	3	4=2x3/100
Vilangad	7.50	16.54	1.24
Chimmony	2.50	23.63	0.59
Adyanpara	3.50	23.63	0.83
Barapole	15.00	16.54	2.48
Poringalkutthu Micro	0.11	23.63	0.03
Total	**28.61**		**5.17**

103. ***Thus, the O&M expense for new generating stations approved for the year 2015-16 is Rs.5.17 crore.***

Summary of O&M expenses excluding Terminal Benefits

104. The summary of the O&M expenses excluding terminal benefits as approved by the Commission is shown below:

Table 27

O&M Expenses Approved for 2015-16

	As per Petition (Rs. crore)	Approved (Rs. crore)
Employee Costs (Excluding terminal benefits)	101.56	91.77
R&M Expenses	26.02	18.73
A&G expenses	16.31	4.34
O&M Expenses for New stations		5.17
Total O&M Expenses	**143.89**	**120.01**

105. ***Thus as per the Regulations, total O&M expenses, excluding terminal benefits approved for SBU-G as per the Regulations is Rs. 120.01 crore as shown above.***

Terminal benefits

106. KSEB Ltd in their truing up petition for SBU-G has sought Rs.40.62 crore towards payment of terminal benefits to retired employees during 2015-16. The total terminal benefits paid is Rs.1004.50 crore for KSEB Ltd.

Provisions in the Regulations

107. Regulation 31 deals with the funding of terminal benefits as reproduced below:

> *31. Interest on bonds issued by KSEB Limited to service the terminal liabilities of its employees. – (1) The interest on the bonds issued by KSEB Limited to service the terminal liabilities of its employees shall be allowed for recovery through tariffs, at the rates stipulated in the relevant orders issued by Government of Kerala.*
> *(2) The bonds shall be amortised at the same rate as prescribed in the Transfer Scheme notified by the Government of Kerala.*
> *(3) The funds required for repayment of the bonds issued by KSEB Limited to service the terminal liabilities of its employees shall not be allowed for recovery through tariffs.*

Analysis and decision of the Commission

108. The Commission has carefully examined the issue of terminal benefits. As per the APTEL Order in Appeal Nos. 1 and 19 of 2013, the terminal benefits have to be provided for. The fact is that the Master Trust could not be operationalised due to

factors beyond the control of KSEB Ltd. Hence, funding of terminal benefits out of Master Trust was not possible in line with the provisions of the Regulations.

109. The Government issued the Second Transfer Scheme order vide G.O.(P) No.46/2013/PD dated 31-10-2013 and subsequently amended the same vide G.O.(P) No.3/2015/PD dated 28-1-2015. In the said Order, Clause 6 provides for the transfer of personnel by the State and sub-clause 8 provides for the arrangement for payment of pension. The relevant portions of the scheme are quoted below:

> *Sub clause 8 of Clause 6:*
>
> *"(8) The State Government shall make appropriate arrangements in respect of funding the terminal benefits to the extent they are unfunded on the date of the transfer of the personnel from the erstwhile Board or KSEB as mentioned in sub clause (9) of the clause 6 of this scheme. As per actuarial valuation carried out by registered valuer, the net present value of unfunded liability is approximately Rs.12,419 crore (Rupees twelve thousand four hundred and nineteen crore) as on the date of re-vesting ie., 31-10-2013.* ***Till such time arrangements are made, the Transferee and the State Government shall be jointly and severally responsible to duly make such payments to the existing pensioners as well as the personnel who retire after the date of transfer but before the arrangements are put in place****. ...."*
> *[emphasis added]*

110. The provisions of the above G.O requires the funding of terminal benefits till the formation of the Master Trust (ie., from 01-11-2013 till formation of the Trust 1-4-2017) to be jointly and severally the responsibility of KSEB Ltd and the State Government. However, the amount of contribution from the State Government is not specified therein.

111. KSEB Ltd in their truing up petition has indicated Rs.1004.50 crore as the actual pension and terminal benefit liabilities incurred during the year. They have further stated that this liability has not been factored into the ARR projection, considering that the Master Trust formation would materialize and the liabilities transferred to that Trust. Since the Master Trust could not be formulated during the year, terminal benefits have been paid directly to the employees.

112. The Commission in the ARR&ERC order for 2014-15 had allowed an amount of Rs.814.40 crore for funding the terminal benefits. Further, in *the suo motu* order on determination of tariff for the years 2016-17 and 2017-18 dated 17-4-2017 also the same amount was allowed in anticipation of the operalisation of the Master Trust. However, as pointed out by KSEB Ltd, Master Trust could not be operationalised

during this period owing to the issues regarding income tax. In this context it is to be pointed out that as per the G.O, dated 28-1-2015, the terminal benefits till the formation of the Trust shall be shared jointly and severally between the Government and KSEB Ltd.

113. In their objections, the Association has pointed out that interest on Master Trust ie., Rs.814.40 crore can only to be allowed under terminal benefits. Considering the Orders of the Hon. APTEL and Hon. High Court the Commission allows Rs.1004.50 crore as terminal benefits. However, in the Truing up, amount equivalent to the interest on Master Trust ie., Rs.814.40 crore is approved for 2015-16 as has been done in the ARR&ERC order for 2014-15, Order on *suomotu* determination of Tariff dated 27-4-2017, and as suggested by the Association. KSEB Ltd shall make up the balance amount of Rs.190.09 crore from the State Government either adjustment of electricity duty retained or through subvention as per the direction of the Government. This shall comply with the G.O provisions and fulfill the obligation of the Government in funding terminal benefits during the interim period till the Master Trust is formed.

114. Out of the total Rs.814.40 crore allowed for funding the terminal benefits from the funds of KSEB Ltd for the year 2015-16, the apportionment of expenses towards the share of SBU-G shall be Rs.32.92 crore (in proportion to their ratio between the three SBU against KSEB Ltd truing up claim for Rs.40.62 crore)

Table 28
Terminal benefits approved for 2015-16

	As per Petition (Rs. crore)	Approved (Rs. crore)
KSEB Ltd		
Terminal benefits as per petition	1004.50	1004.50
Contribution of Government		190.10
Contribution through Truing up		814.40
Total Terminal benefits	**1004.50**	**1004.50**
SBU-G		
Share of Terminal benefits for SBU-G	40.62	40.62
Contribution of Government		7.69
Contribution through Truing up		**32.92**
Total Terminal benefits	**40.62**	**40.62**

115. ***As shown above, the terminal benefits of Rs.40.62 crore is approved for SBU-G and out of this Rs.32.92 crore is allowed in the truing up and the balance is to be met from the contribution from the Government***.

Interest and financing charges

116. KSEB Ltd in their truing up petition, apportioned Rs.46.32 crore as the interest charges towards SBU-G.

117. Interest charges include, interest on long term secured and unsecured loan, interest on GPF, interest on security deposits, interest on overdraft, and other interest charges. Each item is explained below:

Interest on Long term loans and advances

118. The Commission notes that KSEB Ltd has obtained long term borrowing on gross basis and thereafter allocated the amounts to the three SBUs. The total the long term borrowings of KSEB Ltd during 2015-16 is shown in the Table below;

Table 29

Interest charges for loans and advances for 2015-16

	Loans as on 31-3-2016 as per accounts (Rs.crore)	Interest charges for 2015-16 (Rs. crore)
Secured loans-Term loans	1,853.51	209.28
Unsecured loans Term loans	1,900.00	194.04
Total	3,753.51	403.32

119. The above table reveals that the total loan outstanding as on 31.03.2016 for KSEB Ltd was Rs.3753.51 crore. Of this outstanding loan, Rs 1853.51crore is classified as secured long term loans and Rs.1900 crores as unsecured.

120. In order to service these long term loans, KSEB Ltd in their truing up petition had claimed Rs.403.32 crore as interest charges out of the total Rs.909.14 crore towards total finance cost for 2015-16. The interest and finance charges capitalized for the period was Rs.57.73 crores, resulting in a net finance cost of Rs.851.14 crores. However, in their truing up petition, KSEB Ltd has claimed only Rs.837.14 crore towards net Interest and Financing charges, considering only the actual interest disbursed for security deposits.

121. Against total long term loan of Rs.3753.51 crore, KSEB Ltd has apportioned Rs.923.27 crore towards SBU-G. In order to service this long term loan, KSEB Ltd in their truing up petition have apportioned Rs.46.32 crore towards interest and financing charges for SBU-G. That is only interest on long term loan has been claimed towards SBU-G.

Objection of stakeholders

122. Sri Dijo Kappan stated that capital expenditure and projects should be completed in a time bound manner and cited the example of long delays in the completion of Pallivasal Extension programme.

123. The Association had objected to the claims of KSEB Ltd citing the provision of the Regulations. The Association pointed out that interest on CWIP shall not be allowed and accordingly an amount of Rs.226.70 crore on account of interest for CWIP of Rs.2109 crore at a rate of Rs.10.5% should be disallowed from the interest on long term loans.

124. Further, as per the provisions of clause 38, 57 and 71, of the Regulations, the Commission should carryout a prudence check on the capital cost for approval of interest charges.

Provisions in the Regulation

125. Regarding approval of the interest charges, following Regulations provide the detailed procedure for the approval of interest and financing charges.

126. Regulation 27 provides for the debt : equity ratio and the relevant portions are given below:

> *"27.Debt-equity ratio. – (1) For the purpose of determination of tariff, debt-equity ratio as on date of commercial operation in the case of a new generating station, transmission line and distribution line or substation commissioned or capacity expanded on or after the First day of April 2015, shall be 70:30 of the capital cost approved by the Commission:*
> *Provided that the debt-equity ratio shall be applied only to the balance of such approved capital cost after deducting the financial support provided through consumer contribution, deposit work, capital subsidy or grant, if any.*
> *(2) Where equity employed is more than thirty percent of the approved capital cost, the amount of equity for the purpose of tariff shall be limited to thirty percent and the balance amount shall be considered as normative loan and interest on the same may be allowed at the weighted average rate of interest of the actual loan portfolio.*
> *(3) Where actual equity employed is less than thirty percent of the approved capital cost, the actual equity shall be considered.*
>
> *(4) If any fixed asset is capitalised on account of capital expenditure incurred prior to the First day of April, 2015, debt-equity ratio allowed by the Commission for determination of tariff for the period ending the Thirty First day of March, 2015 shall be considered.*

...
....................................."

127. Regulation 30 provides for interest and financing charges, which is given below:

> ***30. Interest and finance charges**. – (1) (a) The loans arrived at in the manner indicated in regulation 27 shall be considered as gross normative loan for calculation of interest on loan.*
>
> *(b) The interest and finance charges on capital works in progress shall be excluded from such consideration.*
>
> *(c) In the case of retirement or replacement of assets, the loan amount approved by the Commission shall be reduced to the extent of outstanding loan component of the original cost of the retired or replaced assets, based on documentary evidence.*
>
> *(2) The normative loan outstanding as on the First day of April, 2015, shall be worked out by deducting the amount of cumulative repayment as approved by the Commission up to the Thirty First day of March, 2015, from the normative loan.*
>
> *(3) Notwithstanding any moratorium period availed by the generating business/company or the transmission business/licensee or the distribution business/licensee, the repayment of loan shall be considered from the first financial year of commercial operation of the project and shall be equal to the depreciation allowed for that financial year.*
>
> *(4) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each financial year applicable to the generating business/company or the transmission business/licensee or the distribution business/licensee or state load despatch centre:*
>
> *Provided that if there is no actual loan for a particular financial year but normative loan is still outstanding, the weighted average rate of interest on the last available loan shall be considered:*
>
> *Provided further that if the regulated business of the generating business/company or the transmission business/licensee or the distribution business/licensee or state load despatch centre does not have actual loan, then interest shall be allowed at the base rate.*
>
> *(5) The interest on loan shall be calculated on the normative average loan for the financial year by applying the weighted average rate of interest.*
>
> *(6) The generating business/company or the transmission business/licensee or the distribution business/licensee or the state load despatch centre, as the case may be, shall make every effort to re-finance*

the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and any benefit from such refinancing shall be shared in the ratio 1:1 among,-

(i) the generating business/company and the persons sharing the capacity charge; or

(ii) transmission business/licensee and long-term intra-State open access customers including distribution business/licensee; or

(iii) distribution business/licensee and consumers.

(7) The changes to the terms and conditions of the loans during the financial year, if any, shall be effective from the date of coming into force of such changes.

(8) Interest shall be allowed on the amount held as security deposit in cash from users of the transmission system or distribution system and consumers at the bank rate as on the First day of April of the financial year in which the application is filed:

Provided that interest on security deposit actually paid to the users of the transmission system or distribution system and to the consumers during the financial year, shall be considered at the time of truing up for the financial year."

Analysis and decision of the Commission

128. The Commission has examined the claims of KSEB Ltd and the objections of the stakeholders in detail. Since there are number of components in the interest charges, each of the item is examined separately. The Commission also sought details of sources of funding of opening level of CWIP vide letter dated 31-7-2018. KSEB Ltd furnished the details vide letters dated 3-8-2018 and 13-8-2018 on the closing level of CWIP as on 31-3-2016 and the details on the opening levels were not furnished. Accordingly, the Commission could not use the details furnished by KSEB Ltd regarding CWIP. The interest on long term secured and unsecured loans are considered first.

129. Concurrent reading of the provisions of Regulation 27 and 30 shows that interest charges applicable to assets created upto 1-4-2015 and after 1-4-2015 (ie., assets addition during the year 2015-16) shall be provided. Proviso to Regulation 27(1) provides that funds received in the form of grants and contributions are to be reduced from the fund requirements. Regulation 30(1) (b) specifies that, interest charges for capital works in progress are not allowable. Further, in the case of

assets during construction, the same is to be treated as part of fixed assets only when the assets are put into use.

130. Hence, the Regulation provides for treatment of loans and interest charges thereon on a normative basis. The normative loan amount required to meet the value of fixed assets as on 1-4-2015 (ie., the date of effect of control period), in the books of the licensee is taken as the funding requirement. Further, the Regulation requires that funds received in the form of grants and contributions to be reduced from the fund requirements. Similarly, for operational purposes, interest on working capital is also provided separately on normative basis. In the case of assets during construction, the same is to be treated as part of fixed assets only when the assets are put into use. Thus, all the funding requirements are considered normatively, so that the consumers are required to pay only what is to be funded.

131. Rate of interest for the loan is specified in Regulation 30(4). As per this, the rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio of the each financial year applicable to the Generating business, transmission business or distribution business as the case may be. Based on this, the weighted average of interest for the year 2015-16 is estimated as shown below:

Table 30

Details of weighted average rate of interest for 2015-16

		Rs. crore
1	Opening balance of loan as on 1-4-2015	3,699.35
2	Closing balance of loan 31-3-2016	3,753.51
3=(1+2)/2	Average loan	3726.43
4	Interest charges for 2015-16	403.33
5=(4/3)%	Average rate of interest	10.82%

132. The opening level of loans as per the accounts is Rs.3699.35 crore and closing balance is Rs.3753.51 crore. The interest charges for loans for the year 2015-16 as per the accounts is Rs.403.33 crore. Thus, the average rate of interest works out to be 10.82%.

133. The interest charges allowable for the year 2015-16 is to be worked out based on the provisions of Regulations. As per the Regulations, interest on working capital is allowed normatively and in the case of loans taken for fixed assets can be assessed based on the net fixed assets available as on 1-4-2015. As per Regulation 30(2), the normative loan outstanding as on 1-4-2015 shall be worked out by deducting the amount of cumulative repayment, which represents the

depreciation allowed, as approved by the Commission as on 31-3-2015 from the normative loan. As per the details furnished by KSEB Ltd, the GFA as on 1-4-2015 is as shown below:

GFA as on 1-4-2015 as per Accounts	Rs.26608.06 crore
Value of assets enhanced as part of Transfer Scheme	Rs.11988.99 crore
GFA less enhanced value as on 1-4-2015	**Rs.14619.07 crore**

134. As per the accounts the cumulative depreciation as on 1-4-2015 is Rs.6800.04 crore. It may be noted that the Commission has not approved the entire depreciation as per the accounts in the previous years mainly on account of the fact that KSEB Ltd has accounted the depreciation as per rates notified by Government of India, whereas the Commission has allowed depreciation as per the rates notified by CERC, as provided in the Electricity Act and as well as Tariff Policy. Accordingly, from 2006-07 onwards, the Commission has disallowed the depreciation on account of the difference between the rates. The total depreciation disallowed by the Commission from 2006-07 to 2013-14 is Rs.664.79 crore. Thus, the depreciation approved by the Commission is Rs.6135.25 crore (Rs.6800.04-Rs.664.79 crore). Based on this, the Net Fixed Assets as on 1-4-2015 is Rs.8483.82 crore (Rs.14619.07 crore – Rs.6135.25 crore).

135. In order to arrive at the interest on loans, the funding pattern of Net Fixed Asset is to be arrived at. The entire Net Fixed Assets of Rs.8483.82 crore is funded out of equity, grants and contribution and loans. As per Regulation 35(b), the equity of Government of Kerala as per the transfer scheme published under Section 131 of the Act shall be considered for computation of return on equity. Thus, the amount of equity is Rs.3499 as per the books of accounts of KSEB Ltd is to be considered as source of funding for fixed assets.

136. The balance value of net fixed assets after accounting for equity is to be treated as funded through contribution and grants as well as loans.

137. As per Regulation 35(a), the reduction of contribution from consumers, grants and such other subvention for creation of assets made as part of transfer scheme shall not reckoned while computing returns. As per the letter dated 28-5-2018, KSEB Ltd has furnished that the grants and contribution to the tune of Rs.4169.87 crore was reduced by Government of Kerala as part of transfer scheme. Further, as per the details furnished by KSEB Ltd vide letter dated 28-5-2018, the grants and contribution added from 1-11-2013 to 31-3-2015 amounting to Rs.500.13 crore

(Rs.172.61 crore + 327.52 crore). Thus, the total grants and contribution as on 1-4-2015 is Rs.4670 crore as in the table below:

Table 31
Details of consumer contributions and grants

	Rs. crore
Grants & contribution as on 31-10-2013 as per the clarification dated 28-5-2018	4,169.87
Grants and contribution added from 01/11/2013 to 31/03/2014	172.61
Grants and contribution added in 2014-15	327.52
Total grants and contribution as on 1-4-2015	4670.00

138. As per the accounts, the depreciation booked by KSEB Ltd includes the depreciation on the assets created out of contribution and grants. Hence, in order to estimate the net value of grants and contribution, the depreciation booked over the years is to be deducted. As shown above, the total depreciation approved by the Commission is Rs.6135.25 crore, ie., 42% of the value of GFA. The same percentage can be applied for estimating the depreciation booked on the assets created out of contribution and grants. Thus the proportionate depreciation on the assets created out of contribution and grants is Rs.1961.40 crore (ie., 42% of Rs.4670 crore). Thus, the net value of assets created out of contributions and grants is Rs.2708.60 crore (Rs..4670 crore – Rs.1961.40 crore). Accordingly, out of the total Net Fixed Assets of Rs.8483.82 crore, the asset created out of contribution is Rs.2708.60 crore.

139. Thus, the balance value of Net Fixed Assets, after accounting for equity, contributions and grant is treated as funded through loans. Based on this, the normative loan outstanding as on 1-4-2015, on the NFA of Rs.8483.82 crore is Rs.2276.17 crore as shown below:

		Rs. crore
1	Net Fixed Assets as on 1-4-2015	8483.82
2	Equity as per accounts	3,499.05
3	Grants and Contribution (after depreciation)	2,708.60
4=(1-2+3)	Normative Loan as on 1-4-2015	2,276.17

140. The depreciation for the year 2015-16 is to be treated as the repayment. The depreciation for the year is Rs.334.87 crore. The balance loan after repayment will be Rs.1941.13 crore. The average interest charges for the normative loan for the year at the weighted average rate of interest of 10.82% is Rs.228.24 crore

(Rs.2276.17 crore+1941.13 crore)/2 X 10.82%). The interest charges arrived at is apportioned based on the share of fixed assets of SBUs as shown below:

Table 32
Details of consumer contributions and grants

		SBU-G Rs. crore	SBU-T Rs. crore	SBU-D Rs. crore	KSEBLtd Rs. crore
1	GFA as on 1-4-2015	16,395.04	4,097.22	6,115.79	26,608.05
2	Less Revalued Assets	11,988.98			11,988.98
3=1-2	GFA less revalued assets as on 1-4-2015	4,406.06	4,097.22	6,115.79	14,619.07
4	% share of SBUs	30%	28%	42%	100%
5	Interest charges based on the share of GFA of SBUs.	68.47	63.91	95.86	228.24

141. ***As shown above, interest charges for existing normative loan for KSEB Ltd is Rs.228.24 crore and the same is apportioned based on the SBU wise GFA is Rs.68.47 crore for SBU-G.***

Interest charges for the addition of assets for 2015-16

142. Interest charges for asset added during the year are also to be considered on a normative basis. Interest charges for the addition to assets is to be regulated as per Regulation 27(1) and Regulation 30. As per the details furnished by KSEB Ltd, the total asset addition during 2015-16 is Rs.738.44 crore for KSEB Ltd as a whole and that of SBU-D is Rs.491.40 crore.

Provisions in the Regulation

143. As per Regulation 27(1), for determination of tariff, debt: equity as on the date of commercial operation on or after first day of April 2015 shall be 70:30. As per proviso to Regulation 27(1), debit equity ratio shall be applied only to the balance of the capital cost after deducting the financial support provided through consumer contribution, deposit work, capital subsidy and grant if any. As per the details furnished by KSEB Ltd in the letter dated 28-5-2018, the total contribution and grants received during 2015-16 is Rs.358.35 crore.

144. Regulation 27(3) and Regulation 29 are also applicable while estimating the normative interest on loan. As per Regulation 29, Return on equity is to be allowed on the paid up equity capital determined as per Regulation 27. Regulation 27(3) provides that in case actual equity is less than 30% of the approved capital cost, the actual equity is to be considered. As per the records available, there is no increase in paid up equity of KSEB Ltd. Thus, it can be concluded the actual equity contribution for the assets added during the year 2015-16 is nil. Hence the source of funding for addition to capital assets is assumed as from loan only.

145. Thus, the net loan for addition of assets for which interest is to be provided for the year is Rs.380.08 crore and the interest charges at the average rate of interest of 10.82% is Rs.20.57 crore (380.08/2 * 10.82%) as shown below:

Table 33
Interest charges for addition of Assets

	KSEB Ltd (Rs. crore)
Asset Addition 2015-16	738.43
Less Contribution & Grants	358.35
Balance value of assets for which interest is to be provided	380.08
Average Rate of interest	10.82%
Interest charges for addition of assets	**20.57**

146. The addition to assets for the year is Rs.738.43 crore and that of SBU-G is Rs.34.79 crore (4.71%). Hence the interest on loans for addition of the assets for SBU-G is 4.71% of Rs.20.57 crore ie., Rs.0.97 crore.

147. The total interest for loans for creation of assets for the year 2015-16 as per Regulation is shown below:

Table 34
Interest on long term loans for SBU-G for truing up for 2015-16

	SBU-G (Rs. crore)
Interest on existing loans	68.47
Interest on addition to assets	0.97
Total interest	69.44

148. ***Thus, the Commission approves the interest charges for long term loans for SBU-G as Rs.69.44 crore***

Overdrafts

149. KSEB Ltd in their truing petition submitted that in addition to long term and short term loans, they have also availed overdraft from banks to make up the shortages in cash flow during 2015-16 at an average level of Rs. 2200 crore and an interest of Rs. 229.43 crore was paid on overdraft.

150. However, KSEB Ltd did not provide SBU wise details of these over drafts. According to KSEB Ltd , the overdrafts are availed mainly for meeting the revenue deficits and no interest charges assigned to SBU-G. Hence the Commission is not approving any interest on account of overdrafts availed.

Interest on working capital

151. In their truing up petition, KSEB Ltd has not claimed any interest on working capital. However, as part of the clarifications dated 28-5-2018, KSEB Ltd has furnished the SBU wise estimate of interest on normative working capital. KSEB Ltd submission has indicated the normative working capital for SBU-G as Rs. 117.52 crore and claimed Rs.14.10 as interest on working capital as shown in the Table below.

Interest on Working Capital SBU G		
		(Rs. crore.)
S. No.	**Particulars**	**Normative**
1	Fuel cost (LSHS) (as per norms)	8.69
2	Liquid fuel stock (as per norms)	
3	O & M expenses (as per norms)	11.99
4	Maintenance Spares (as per norms) 1% of Rs 4406.05 crore	44.06
5	Receivables (as per norms)	52.78
	Total Working Capital	**117.52**
6	Rate of Interest (as per norms)	0.12
7	**Interest on Working Capital**	**14.10**

Objections of the Stakeholders

152. Regarding interest on overdraft from the Banks, the Association pointed out that the claim of Rs.229.34 crore on interest on overdraft is not allowable as KSEB Ltd is in excess of the current liabilities over non cash assets, which shows that KSEB Ltd holds excess cash (due not paid) which is more than sufficient to cover the working capital requirements.

153. The Association also pointed out the observations of the Commission in the order dated 20-7-2017 on the truing up of accounts of KSEB Ltd for the year 2013-14. The observations of the Commission while disallowing interest on working capital as given below:

> *"93.Hence, Commission is at a loss as to how to substantiate the interest on working capital as claimed by the KSEB Ltd. It is true that the books of accounts contain these borrowings. However KSEB has not been able to effectively prove as to why so much working capital loan has been availed. As mentioned elsewhere the concern of the Commission is that the commission has approved and provided the interest on short terms loans and long terms loans and also sufficient provisions has been built in to finance the approved revenue gap. The licensee has failed to give a detailed reasoning for such high levels of borrowings and answer the concerns raised by the commission herein, in a conclusive manner based on prudent reasoning. Hence Commission is not in a position to approve interest more than that as approved below, for the year 2013-14."*

154. Based on the above, the Association requested to disallow the claim on interest on working capital.

Provisions in the Regulations

155. As per the provisions of Regulations, interest on working capital for liquid fuel stations and hydel stations are separately mentioned.

> *"33.Interest on working capital. – (1) The generation business/company or transmission business/licensee or distribution business/licensee or the state load despatch centre shall be allowed interest on the normative level of working capital for the financial year, computed as under,-*
>
> *(a)In the case of liquid fuel based generating stations the working capital shall comprise of,-*
>
> *(i)cost of liquid fuel for one month corresponding to actual generation; plus*
>
> *(ii)operation and maintenance expenses for one month; plus*

(iii)cost of maintenance spares at one per cent of the historical cost; plus
(iv)receivables equivalent to fixed charges and energy charges for sale of electricity for one month calculated at actual generation:
Provided that in the case of own generating stations, no amount shall, in the computation of working capital in accordance with these Regulations, be allowed towards receivables, to the extent of supply of power by the generation business to the distribution business.

(b)In the case of gas turbine/combined cycle generating stations the working capital shall comprise of,-

(i)cost of gas and liquid fuel for one month corresponding to actual generation; plus
(ii)operation and maintenance expenses for one month; plus
(iii)cost of maintenance spares at one per cent of the historical cost; plus
(iv)receivables equivalent to fixed charge and energy charge for sale of electricity for one month calculated at actual generation:

Provided that in the case of own generating stations, no amount shall, in the computation of working capital in accordance with these Regulations, be allowed towards receivables, to the extent of supply of power by the generation business to the distribution business.
(c)In the case of hydro-electric generating stations the working capital shall comprise of,-

(i)operation and maintenance expenses for one month; plus
(ii)cost of maintenance spares at one per cent of the historical cost; plus
(iii)receivables equivalent to fixed cost of one month:

Provided that in the case of own generating stations, no amount shall, in the computation of working capital in accordance with these Regulations, be allowed towards receivables, to the extent of supply of power by the generation business to the distribution business."

Analysis and decision of the Commission

156. As per the provisions of the Regulations, interest on working capital is allowed on a normative basis for each business separately.

157. The Commission has carefully examined the details furnished by KSEB Ltd. As seen in the Table above, KSEB Ltd has furnished the details for the entire SBU-G, whereas as per the provisions of the Regulations, interest charges are to be given separately for *liquid fuel based generating stations, gas turbine/combined cycle generating station and hydro-electric generating stations*

158. Regulation 33 requires the Commission to estimate the interest on working capital for liquid fuel based generating station and for hydro-electric stations separately. Since KSEB Ltd has not furnished sufficient details as per the provisions of the Regulations, the Commission had no alternative but to estimate the interest on working capital with the available information.

159. As per Regulation 33(1), interest shall be allowed on the normative level of working capital. Regulation 33 (1) (a) states that, In the case of liquid fuel based generating stations, the working capital shall comprise of :

- cost of liquid fuel l for one month corresponding to actual generation; plus
- O&M expenses for one month plus
- Cost of maintenance of spares at 1% of the historical cost plus
- Receivables equivalent to fixed charges and energy charges for sale of electricity for one month calculated at actual generation.

160. As per Regulation 33(2), interest on normative working capital shall be allowed at a rate 2% higher than the base rate as on the first day of April of the respective financial year.

> *33(2) Interest on normative working capital shall be allowed at a rate equal to two percent higher than the base rate as on the First day of April of the financial year in which the application for approval of aggregate revenue requirement and determination of tariff is filed.*

161. In case of own generation, no amount shall in the computation of working capital be allowed towards receivables, to the extent of supply of power by the generation business to the distribution business.

162. KSEB Ltd has not furnished the method for segregation the calculation of working capital between the liquid fuel based generating stations and the hydro-electric generating stations. Hence, the Commission has adopted the installed capacity of the two types of generating stations as the basis in working out the interest on normative working capital.

163. Accordingly the parameters required for estimation of normative working capital requirements as per the Regulations is as shown below:

Cost of fuel for the year 2015-16	- Rs.104.25 crore
O&M expenses of SBU-G for 2015-16	- Rs.152.94 crore
Historical cost of Assets of SBU-G	- Rs.4406.06 crore
Base rate of SBI as on 1-4-2015	- 10%
Installed capacity of LSHS Stations	- 159.96MW
Installed capacity of Hydel stations	- 2046.16MW

164. Based on the above, the interest on normative working capital is estimated as shown below:

Table 35
Interest on working capital approved for SBU-G

	LSHS Stations (Rs. crore)	Hydro (Rs. crore)	Total for SBU-G (Rs. crore)
Cost of fuel for one month	8.69	-	
O&M expenses for one month	0.92	11.82	
Cost of maintenance of spares 1% of historical cost	3.19	40.87	
Total Normative Working capital Requirement	**12.81**	**52.69**	65.49
Base rate as on 1-4-2015	10%	10%	10%
Interest rate on working capital	12%	12%	12%
Interest on working capital	**1.54**	**6.32**	**7.86**

165. ***As shown above, the interest on working capital approved for SBU-G is Rs.7.86 crore for the year 2015-16***

Interest on security deposits

166. The interest on security deposit provided for 2015-16 was Rs 167.90 crore at a rate of 8.50% for the Security deposit balance Rs 1975.31 crore as on 31.3.2015., KSEB Ltd in the truing up petition has claimed Rs.167.90 crore for 2015-16 at a rate of 8.50% on outstanding of Rs.1975.01 crore as on 31-3-2015. The actual interest on Security deposit disbursed during the year 2015-16 as Rs.153.64 crore. KSEB Ltd stated that only the actual interest paid on security deposits has been claimed in the petition.

167. ***Since there is no security deposit outstanding against SBU-G, no interest charges is provided for SBU-G by KSEB Ltd in their truing up petition.***

Interest on GPF

168. As per KSEB Ltd audited accounts, the interest paid on GPF subscription was Rs.106.24 crore at 8.70% for the year. KSEB Ltd has vide the letter dated 28-5-2018 intimated that the interest on GPF for SBU-G was Rs.5.47 crore.

Table 36
Details of interest on Provident Fund for SBU-G

Particulars	**SBU-G**
	(Rs. crore)
Opening balance as on 01/04/2015	**67.94**
Add : Addition	
1) Subscription/Contribution	15.77
2) Repayment of Temporary Advance	1.77
2) Interest	*5.47*
Sub Total	**23.01**
Less : Withdrawal	
1) Temporary Advance	1.93
2) NR withdrawal/Closure	13.93
Sub Total	**15.86**
Closing Balance as on 31/03/2016	75.09

Objections of the Stakeholders

169. Regarding interest on security deposit, the Association requested the Commission to allow the actual payout of interest. Regarding interest on GPF, the Association requested the Commission to allow interest once the GPF balances and interest is reconciled as pointed out by the statutory auditors. Regarding interest on Master Trust, the Association stated that KSEB Ltd has not issued the bonds yet and the claim of terminal benefits is to be limited to allowing Rs.814.40 crore as interest on Master Trust and the claim of terminal benefits of Rs.1004 crore is to be disallowed.

Analysis and decision of the Commission

170. ***The Commission after examining the details furnished by KSEB Ltd, approves the interest on GPF for SBU-G as Rs.5.47 crore***

Other interest charges

171. Other interest charges paid is inclusive of guarantee commission and bank charges. The actual expenses were Rs.0.46 crore only. Predominant portion of other charges represent guarantee charges payable to Government amounting to Rs.0.28 crore. Further, Rs.0.16 crore represents interest paid on gratuity consequent to the decision to implement the Payment of Gratuity Act in KSEB Ltd.

172. According to KSEB Ltd interest was paid as per section 7 of the Gratuity Act, a statutory claim, which automatically becomes applicable once decided to

implement the said Act in KSEB. KSEB Ltd further stated that since the differential gratuity as per Gratuity Act over DCRG as per Part III KSR was approved in line with Hon APTEL judgment dated 10.11.2014, the interest charges may also be allowed.

173. KSEB Ltd in their truing up petition has not allocated any amount towards other interest charges for SBU-G. Hence, there are no orders on this account by the Commission

Summary of Interest and financing charges

174. A summary of the calculations of interest and finance charges of SBU-G is shown in the Table below:

Table: 37

Summary of Interest charges allowable for SBU-G

Item	Truing up (Rs. crore)
Interest on loan	69.44
Interest on working capital	7.86
Interest on GPF	5.47
Total	**82.77**

175. ***Based on the above submissions by KSEB Ltd and its due consideration the Commission approves the total interest and financing charges approved for the year 2015-16 for SBU-G is Rs.82.77 crore.***

Depreciation

176. In their truing up petition, KSEB Ltd has claimed Rs.122.05 crore as depreciation of their SBU-G assets. KSEB Ltd has clarified that they have not claimed depreciation for the increase in value of assets on account of transfer scheme notified by the Government. Depreciation sought as per the petition is as shown below:

Table 38

Depreciation claimed for SBU-G for the year 2015-16

S. No.	Particular	Gross fixed assets (Rs. crore)			Provisions for depreciation (Rs. crore)			Net fixed assets at the beginning of the year (Rs. crore)	Net Fixed Asset at the end of the year (Rs. crore)
		At the beginning of the year	Additions during the year	At the end of the year	Cumulative upto the beginning of the year	Additions during the year	Cumulative at the end of the year		
1	Land & land rights	1467.10	13.84	1480.94	0.00	0.00	0.00	1467.10	1480.94
1A	Hydraulic works	1153.96	6.37	1160.33	397.89	40.27	438.16	756.07	722.17
2	Building & Civil works of Power plant	479.69	2.09	481.78	200.29	13.55	213.85	279.39	267.93
3	Plant & machinery including sub-station equipments	13265.49	11.38	13276.87	1356.63	67.02	1423.64	11908.87	11853.23
4	Communication equipment	3.29	0.02	3.31	0.63	0.17	0.79	2.67	2.52
5	Vehicles	6.63	0.57	7.20	3.07	0.28	3.35	3.56	3.85
6	Furniture & fixtures	3.59	0.23	3.82	2.42	0.09	2.51	1.17	1.31
7	Office Equipments	3.36	0.09	3.45	1.89	0.09	1.98	1.47	1.47
8	Capital spares	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	IT Equipments	5.47	0.19	5.66	1.08	0.14	1.22	4.39	4.44
11	Any other items (Lines, Cable Network etc.)	6.46	0.00	6.47	4.30	0.45	4.76	2.16	1.71
	Total (1) to (11)	**16395.04**	**34.79**	**16429.82**	**1968.21**	**122.05**	**2090.25**	**14426.83**	**14339.57**

177. KSEB Ltd in their truing up petition has stated that they began accounting for depreciation as per CERC norms from 01.11.2013. Their earlier practice of charging depreciation as per the notification issued by Ministry of Power as per the provisions of the Electricity (Supply) Act 1948 had been dispensed with. They also stated that the accounting policy with regard to depreciation is narrated in Note No. 38.6, Statement of Accounting policies, in the Annual Statement of Accounts. The same is quoted below:

> "a. Depreciation is calculated on straight line method upto 90% of the original cost of assets at the rates notified by Central Electricity Regulatory Commission
>
> b.Asset are depreciated to the extent of 90% of the cost of the asset and 10% is retained as residual value
>
> c. Remaining depreciable value as on 31st March of the year closing after a period 12 years from the date of commercial operation shall be spread over the balance useful life of the asset.

d.Clawback of depreciation has been provided in the accounts on the assets created out of the contribution received from consumers as on 31st March of last year. "

178. KSEB Ltd stated in their truing up petition that the depreciation worked out is inclusive of assets created out of consumer contribution and grants. Since depreciation is not allowable for assets created out of consumer contribution and grants, the same is treated as write back as miscellaneous income under other income. Since there is no assets created out of contribution and grants under SBU-G, the same is not applicable to SBU-G.

179. As part of clarification furnished vide letter dated 28-5-2018, KSEB Ltd given the details of valuation of assets carried out as part of transfer scheme. According to KSEB Ltd, Government as per the second transfer scheme notification has enhanced the value of assets as on 1-11-2013, based on the revenue potential as furnished below:

Table 39

Details of enhancement of Gross Fixed Assets on Re-vesting

Description of asset	Original Asset value (31.10.2013) (Rs. crore)	Revised asset value (01.11.2013) (Rs. crore)	Enhancement in value (Rs. crore)
Land	357.53	1634.53	1277.00
Plant and Machinery	4551.95	15263.94	10711.99
Total	4909.48	16898.47	11988.99

180. KSEB Ltd in their clarification dated 28-5-2018 has given the valuation of assets as shown in the Table below, As shown below the entire increase in value has been made under SBU-G and the asset addition thereon is as shown below

Table 40

Details of Fixed Asset for the Period from 01/11/2013 to 31/03/2016 (Rs. In crore)

SL NO	**PARTICULARS**	**SBU G** (Rs. crore)	**SBU T** (Rs. crore)	**SBU D** (Rs. crore)	**TOTAL** (Rs. crore)
1	Balance as on 31/10/2013	1,898.29	2,300.48	2,670.02	**6,868.79**
2	Enhancement made in value at the time of re-vesting	11,988.98	0.00	0.00	**11,988.98**
3	Addition during the period from 01/11/2013 to 31/03/2014	2,308.30	1,500.84	2,813.14	**6,622.28**
4	Addition for the year 2014-15	199.47	295.90	632.63	**1,128.00**
5	Addition for the year 2015-16	34.79	212.24	491.41	**738.44**
6	**Balance as on 31/03/2016 (TOTAL)**	**16429.83**	**4309.46**	**6607.20**	**27346.50**

181. KSEB Ltd has also stated that depreciation for the increase in value of assets consequent the transfer scheme has not been claimed in the truing up petition. The SBU wise depreciation has also been furnished as shown below:

Table 41

SBU wise depreciation claimed for the year 2015-16

	GFA at the beginning of the year (Rs. crore)	Depreciation (Rs. crore)
SBU-G	16,395.04	122.05
SBU-T	4,097.22	133.05
SBU-D	6,115.80	236.13
Total	26,608.05	491.22

182. As seen from their truing up petition, KSEB Ltd has claimed depreciation of Rs,122.05 crore for SBU-G for the year 2015-16.

Objections of the stakeholders

183. The HT-EHT Association pointed out that in the case of depreciation, the amount should be calculated as per the rates given in the Regulation. The Association stated that the rate of depreciation claimed as per the account is higher than that specified in the Regulation. Hence according to the estimates of the Association depreciation allowable for entire KSEB Ltd is Rs.326.37 crore only, instead of Rs. 491.22 crore as claimed in the petition.

Provisions in the Regulations

184. Regulation 28 provides for depreciation for the purpose of tariff determination. The relevant provisions are reproduced below:

> *"28.Depreciation. – (1) The value base for the purpose of depreciation shall be the original capital cost of the asset approved by the Commission:*
>
> *Provided that no depreciation shall be allowed on revaluation reserve created on account of revaluation of assets.*
>
> *(2)The generation business/company or transmission business/licensee or distribution business/licensee shall be permitted to recover depreciation on the value of fixed assets used in their respective business, computed in the following manner:-*

(a)depreciation shall be computed annually based on the straight line method at the rates specified in the Annexure-I to these Regulations for the first twelve financial years from the date of commercial operation;

(b)the remaining depreciable value as on the Thirty First day of March of the financial year ending after a period of twelve financial years from the date of commercial operation shall be spread over the balance useful life of the assets as specified in Annexure- I;

(c)the generating business/company or transmission business / licensee or distribution business/licensee, shall submit all such details and documentary evidence, as may be required under these Regulations and as stipulated by the Commission from time to time, to substantiate the above claims;

(d)the salvage value of the asset shall be ten per cent of the allowable capital cost approved by the Commission and depreciation shall be a maximum of ninety per cent of the approved capital cost of the asset.

(3)The generating business/company or transmission business/licensee or distribution business/licensee shall be allowed to claim depreciation to the extent of financial contribution in the form of loan and equity, including the loan and equity contribution, provided by them:

Provided that depreciation shall not be allowed on assets funded through consumer contribution, deposit works, capital subsidies and grants.

(4)In the case of existing assets, the balance depreciable value as on the First day of April, 2015, shall be worked out by deducting the cumulative depreciation as approved by the Commission up to the Thirty First day of March, 2015, from the gross depreciable value of the assets."

185. Regulation 35 provides the principles to be adopted for treating the transfer scheme under Section 131 of the Act.

"35. Principles for adoption of Transfer Scheme under Section 131 of the Act.- The Commission may, for the purpose of approval of aggregate revenue requirements and determination of tariff, adopt the changes in the balance sheet, due to the re-organisation of the erstwhile Kerala State Electricity Board as per the provisions of the Transfer Scheme published by the Kerala State Government under Section 131 of the Act, subject to the following principles,-

(a) Increase in the value of assets consequent to the revaluation of assets shall not qualify for computation of depreciation or of return on net fixed assets;

(b) The equity of Government of Kerala as per the Transfer Scheme published under Section 131 of the Act will be considered for computation of return on equity.

(c) The reduction of the contribution from consumers, grants and such other subventions for creation of assets, made as a part of Transfer Scheme, shall not be reckoned while computing depreciation or return on net fixed assets";

Analysis and decision of the Commission

186. KSEB Ltd has stated that the depreciation claimed is as per the provisions of the Regulations. In reply to the statutory auditors, KSEB Ltd has stated that "*depreciation is being calculated by taking the asset as on 31-3-1999 as a whole block and the depreciation for each year addition in fixed asset is being calculated separately. Each year addition in fixed assets is correctly tallying with asset addition as per the statement of fixed assets…"* . Thus, it can be observed that depreciation for the assets before 31-3-1999 taken as a block.

187. As quoted above, the depreciation is to be calculated as per the rates provided in the Regulations. The rate of depreciation in the Regulations is the same as the depreciation rates notified by CERC. The depreciation for an asset for first 12 years to be at rate notified and the balance value if any shall be spread over the useful life of the assets. Further, depreciation shall not be applicable to the assets created out of consumer contribution and grants.

188. Regulation 35 (a) mandates that increase in the value of assets consequent to its revaluation shall not qualify for computation of depreciation or return on Net Fixed Asset. Similarly depreciation shall also not be allowable for the assets created out of consumer contribution and grants. Further, the reduction in contribution from consumers and grants made as part of the transfer scheme shall not be considered for computing depreciation.

189. KSEB Ltd in their accounting policy has mentioned that depreciation is calculated on straight line method upto 90% of the original cost of assets at the rates notified by CERC and the balance 10% is retained as residual value. The remaining depreciable value as on 31st March of the year after a period of 12 years from the date of commercial operation shall be spread over the useful life of the assets. Write back of the depreciation has been made in the accounts on the assets created out of the contribution received from consumers as on 31stMarch of last year.

190. *The Commission has noted that several qualification has been made by the statutory auditors on the fixed assets and on the depreciation accounting of KSEB Ltd. The Commission directs that KSEB Ltd has to address these issues on an urgent basis and to clear the auditors qualifications in a time bound manner*.

191. The Commission notes that in the case of SBU-G, KSEB Ltd has not sought depreciation for consumer contribution and grants and for revalued assets.

Table 42

Depreciation approved for SBU-G the year 2015-16

	As per Accounts (Rs. crore)	Approved for truing up (Rs. crore)
Depreciation	122.05	122.05

192. ***Since there is no adjustment to be made on the assets created out of consumer contribution and that of revalued assets, the Commission approves the depreciation of Rs.122.05 crore claimed by SBU-G for the purpose of truing up.***

Other expenses:

193. Other expenses included other debits and prior period expenses and income. The Other debits include Material cost Variance, R&D Expenses, Bad Debts and Misc Losses Written-off. The material cost variance represents the difference between the actual rate at which material was procured and the 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. The Other debits as per accounts for KSEB Ltd as a whole is Rs.88.98 crore, which is inclusive of Rs.13.06 crore under bad and doubtful debts written off/provided and demand withdrawal from consumers. Further material cost variance of Rs.71.84 crore is also included. Rs.3.96 crore was included as miscellaneous losses and write offs.

194. As per the petition, under Other expenses, SBU-G claimed a net income of Rs.7.96 lakh mainly on account of adjustment of prior period income. Other debits for the year have been Rs.2.24 crore. Prior period charges include both income as well as expenses relating to earlier years, and net prior period income is reported at Rs.10.20 crore. Hence, after adjusting other debits from prior period income, the net gain under this head works out to Rs.7.96 crore for SBU-G

Table 43

Other expenses for SBU-G the year 2015-16

	SBU-G (Rs. crore)
Material Cost Variance	2.21
Research and Development Expenses	0.03
Bad and Doubtful Debts Written off / Provided/demand withdrawal of consumers	-0.00
Miscellaneous Losses and Write Offs	0.00
Sundry Expenses	-0.00
Prior Period income/charges	-10.20
Total	-7.96

Analysis and decision of the Commission

195. The main item under the head is material cost variance which is Rs.2.21crore for SBU-G. In their reply dated 28-5-2018, KSEB Ltd stated that the material cost variance is the difference between actual rate at which material is procured and the standard rate fixed for pricing the issue of material. They clarified that the material cost variance is booked for capital works as well as R&M works. However, it was also stated that no portion of the cost variance is capitalised.

196. Since KSEB Ltd had not furnished the amount of cost variance due to capital works and R&M works separately, the Commission is not in a position to comment on the amount. In any case, cost variance on account of capital works needs to be capitalised.

197. ***Considering the above, the Commission approves Other Expense of Rs.(-) 7.96 crore as per the KSEB Ltd truing up petition for SBU-G***

Return on equity

198. KSEB Ltd in their truing up petition has claimed return on equity at the rate of 14%. As per the petition, the total equity mentioned of KSEB Ltd is Rs.3499 crore. Of this, Rs.1454.53 crore is the equity claimed in KSEB Ltd truing up petition for SBU-G, the corresponding figure in their audited balance sheet for 2015-16 is shown as Rs.927.69 crore

199. Based on the equity given in the truing up petition, KSEB Ltd has claimed the Return on Equity for SBU-G as Rs.203.63 crore.

200. As indicated above, there is a difference in the method of estimation of equity as per accounts and the truing up petition. KSEB Ltd in their letter dated 28-5-2018 had furnished that the difference is on account of the fact that the figures adopted

for truing up is as per the methodology followed by the Commission as per the order on *suo motu* determination of tariff dated 17-4-2017.

Objections of the stakeholders

201. According to the Association, return on equity shall be as per the equity base approved by APTEL in the Order dated 18-11-2015 in Appeal No.247 fo 2014. Accordingly RoE of Rs.39.15 crore only to be given for entire KSEB Ltd instead of Rs.489.86 crore.

Provisions in the Regulations

202. As per Regulation 27, normative debt equity ratio is 70:30 as shown below:

> ***27. Debt-equity ratio. –*** *(1) For the purpose of determination of tariff, debt-equity ratio as on date of commercial operation in the case of a new generating station, transmission line and distribution line or substation commissioned or capacity expanded on or after the First day of April 2015, shall be 70:30 of the capital cost approved by the Commission:*
>
> *Provided that the debt-equity ratio shall be applied only to the balance of such approved capital cost after deducting the financial support provided through consumer contribution, deposit work, capital subsidy or grant, if any.*
>
> *(2) Where equity employed is more than thirty percent of the approved capital cost, the amount of equity for the purpose of tariff shall be limited to thirty percent and the balance amount shall be considered as normative loan and interest on the same may be allowed at the weighted average rate of interest of the actual loan portfolio.*
>
> *(3) Where actual equity employed is less than thirty percent of the approved capital cost, the actual equity shall be considered.*
>
> *(4) If any fixed asset is capitalised on account of capital expenditure incurred prior to the First day of April, 2015, debt-equity ratio allowed by the Commission for determination of tariff for the period ending the Thirty First day of March, 2015 shall be considered.*

203. Regulation 29 provides for return on equity. As per the said Regulation, RoE of 14% shall be allowed on the equity on the paid up equity capital as shown below:

> ***"29.Return on investment. –*** *(1) Return on equity shall be computed in rupee terms, on the paid up equity capital determined in accordance with the regulation 27 and shall be allowed at the rate of fourteen percent for generating business/companies, transmission business/licensee, distribution business/licensee and state load despatch centre:*
>
> *Provided that, return on equity for generating business/company, transmission business/licensee, distribution business/licensee and state load*

despatch centre, shall be allowed on the amount of equity capital approved by the Commission for the assets put to use at the commencement of the financial year and on fifty percent of equity capital portion of the approved capital cost for the investment put to use during the financial year:

Provided further that at the time of truing up for the generating business/company, transmission business/licensee, distribution business/licensee and state load despatch centre, return on equity shall be allowed on pro-rata basis, taking into consideration the documentary evidence provided for the assets put to use during the financial year."

Analysis and decision of the Commission

204. The Commission has examined the details furnished by KSEB Ltd and the objections of H-EHT Association. The Association has pointed out the APTEL judgment in Appeal No.247 of 2014 and stated that equity to be considered is only Rs.283.91 crore. The Commission notes that aggrieved by the order of the APTEL dated 18.11.2015 in Appeal No.247 of 2015, KSEB Ltd has filed a second appeal before the Hon'ble Supreme Court of India, raising certain substantial questions of law. The said appeal was admitted as Civil Appeal Nos 7247-48 of 2016 and Hon'ble Supreme Court, as per order dated 29.07.2016 has ordered that:

> *"The State Commission may proceed with the matter pursuant to the remand. However, no final order may be passed without permission from the Court."*

205. It can be seen that the said judgment of Hon APTEL and subsequent appeal filed before the Hon. Supreme Court pertains to the period 2014-15. The Commission in exercise of the power vested under the Electricity Act has issued KSERC (Terms and Conditions for Determination of Tariff) Regulations for the control period 2015-16 to 2017-18. Hence, the provision of the Regulations is applicable for the determination for the control period 2015-16 to 2017-18. As per Regulation 35(b), for the purpose of computation of return on equity, the equity of Government of Kerala as per the transfer scheme published under Section 131 is to be followed. In this context, it is also to be mentioned that the Government has issued the G.O after reconciling the accounts between KSEB Ltd and the Government. In the said G.O, the Government has specifically mentioned that increase in equity as per the Transfer Scheme is through cash infusion by the way

of adjustment of electricity duty. Hence, the argument of the Association that the reduced equity of Rs.283.91 crore is applicable is not maintainable. Accordingly, the Commission accepts the equity of KSEB Ltd as Rs.3499 crore as per the G.O issued by the Government of Kerala. The RoE allowable for the SBU-G for the year 2015-16 is as shown below:

Table :44

Return on equity approved for the year 2015-16.

	Equity As per petition		Approved for Truing up	
	Equity (Rs. crore)	RoE @ 14% (Rs. crore)	Equity (Rs. crore)	RoE @ 14% (Rs. crore)
SBU-G	1,454.50	203.63	927.69	129.88
Total	3,499.00	489.86	3,499.05	489.86

206. ***As shown above, the Commission approves Rs.129.88 crore as ROE for SBU-G for 2015-16***. The difference in figures as per the petition and approved figures is on account of difference in assignment of the amount of equity as per the petition and as per the accounts.

Annual capacity charges of SBU-G

207. Regulation 43 provides for the annual capacity/fixed charges. Relevant provisions of the Regulation is as shown below:

> ***"43..Annual capacity / fixed charges. –*** *(1) The annual capacity/fixed charges of a hydro-electric generating station or of a liquid fuel or gaseous fuel based thermal generating station, shall comprise of the following components:-*
>
> *(i) Operation & maintenance expenses;*
> *(ii) Depreciation;*
> *(iii) Interest and finance charges*
> *(iv) Interest on working capital;*
> *(v) Return on equity:*
> *Provided that the non-tariff income if any, shall be reduced while computing the annual capacity / fixed charges.*

208. Based on the above provisions, various components of the capacity/fixed charges are determined as shown below:

The O&M expenses including terminal benefits for SBU-G is Rs 152.93 crore

(a) Interest and finance charges

The approved level of interest and financing charges including interest on working capital for SBU-G is Rs.82.77 crore

(b) Depreciation :

Approved level of depreciation for SBU-G is Rs.122.05 crore

(c) Return on equity:

The RoE for SBU-G is Rs.129.88 crore

Non-Tariff income

The approved level of non-tariff income for SBU-G is Rs.19.43 crore

209. Thus, the total fixed charges approved for the year 2015-16 for SBU-G is as shown below:

Table :45

Fixed charges allowable for SBU-G

	As per Petition Rs. (crore)	As per Truing up (Rs. crore)
O&M expenses	143.88	120.01
Terminal benefits	40.62	32.92
Depreciation	122.05	122.05
Interest & Financing charges including interest on WC	46.32	82.77
Return on Equity	203.63	129.88
Less Non Tariff income	19.43	19.43
Total	**537.07**	**468.20**

210. As per the provisions of the Regulations, in the case of SBU-G, 50% of the fixed charges are recovered based on the Plant Availability Factor (PAF) achieved by each plants and the balance 50% is recovered based on the energy charges worked out based on design energy. Since KSEB Ltd did not furnish the station wise details of allowable expenses, the allowable fixed costs as per the Regulations could not be worked out. Since PAF is a performance parameter for generating stations, in order to assess the overall performance of SBU-G, PAF weighted on installed capacity is compared with the target Normative Plant Availability Factor (NAPAF) as shown below for the major stations for which NAPAF has been specified.

Table 46

Normative and Actual Plant Availability factor

		As per Norms		As per actual	
Name of the stations	Installed capacity (MW)	NAPAF as per Norms	Weighted Average NAPAF	PAF As per Petition	Weighted Average PAF
Kuttiady (Units 1 to 6)	75.00	90.0%	67.50	87.12%	65.34
Sholayar	54.00	89.0%	48.06	78.67%	42.48
Pallivasal	37.50	90.0%	33.75	91.94%	34.48
Sengulam	51.20	90.0%	46.08	89.43%	45.79
Panniar	32.40	89.0%	28.84	87.99%	28.51
Edamalayar	75.00	77.0%	57.75	86.56%	64.92
Idukki	780.00	90.0%	702.00	90.47%	705.67
Sabarigiri	340.00	90.0%	306.00	84.94%	288.80
Kakkad	50.00	88.0%	44.00	85.77%	42.89
Poringalkuthu	36.00	89.0%	32.04	79.96%	28.79
Malankara	10.50	81.0%	8.51	85.39%	8.97
BDPP	63.96	80.0%	51.17	90.03%	57.58
KDPP	96.00	80.0%	76.80	86.97%	83.49
Total Weighted Average NAPAF for Recovery of Fixed Cost			**1,502.49**		**1,497.69**
Percentage Achievement					**99.68%**

211. The PAF is to be aggregated based on the monthly data as provided in the Regulations. However, the reported data could not be verified to this extent. As shown above, the overall achievement in terms of plant availability with respect to normative availability is 99.68%. Since the actual availability is close to the normative availability no adjustment is made in the recovery of fixed charges.

Cost of excess auxiliary consumption

212. As mentioned in the earlier section, the excess auxiliary consumption is 7.44MU. The cost of the excess auxiliary consumption is to deducted from the net transfer cost of generation. The same is worked out as shown below:

Table 47
Cost of excess auxiliary consumption

1	Excess Auxiliary consumption (MU)	7.44
2	Cost of hydro generation (Rs.564.51 crore - 104.25 crore)	460.26
3	Hydro Generation (6639.02-25.91MU)	6,613.11
4=(2/3)*10	Per unit cost (Rs./kWh)	0.70
5=4x1	**Cost of excess aux.consumption (Rs. crore)**	**0.52**

213. The Cost of hydro generation (Rs.564.51 crore) is the total approved costs including ROE (Rs.583.94 crore) less non-tariff income (Rs.19.43 crore)

Summary and Transfer Cost of SBU-G

214. Based on the above the net transfer cost of SBU-G after deducting the excess cost of auxiliary consumption is Rs.563.99 crore (Rs. 564.51 crore - 0.52 crore). This amount is the internal generation cost.

215. Total approved revenue requirements for SBU-G is the transfer cost of internal Generation to SBU-D as shown below:

Table 48
Approved Transfer Cost and Revenue gap of SBU-G for 2015-16

	SBU-G	
	As per petition (Rs. crore)	As per Truing up (Rs. crore)
Revenue from Transfer Cost	633.37	563.99
Non-Tariff income	19.43	19.43
Total Income	**652.80**	**583.42**
Fuel cost	104.26	104.25
Employee Costs	101.55	91.77
R&M expenses	26.02	18.73
A&G expenses	16.31	4.34
O&M of New Stations	-	5.17
Terminal benefits	40.62	32.92
Interest and financing charges	46.32	82.77
Depreciation	122.05	122.05
RoE	203.63	129.88
Other expenses	-7.96	-7.96
Less Cost of excess aux. Consumption		-0.45
Gross Expenses	**652.80**	**583.42**
Revenue gap	-	-

216. As shown above the gross transfer cost and net transfer cost of SBU-G is Rs.582.42 crore. After deducting Rs.19.43 crore on account of Non-Tariff Income the net transfer cost of Rs.563.99 crore is arrived.

217. The Commission after analyzing the petition and the arguments of the petitioner KSEB Ltd and the stakeholders, arrives at a gross transfer cost of Rs.583.42 crore and net transfer cost of Rs.563.99 crore, which is transferred as internal cost of generation to SBU-D. Since the entire cost of SBU-G is transferred to SBU-D as internal generation cost, there is no revenue gap or surplus for SBU-G for 2015-16.

CHAPTER -3

TRUING UP OF ACCOUNTS OF STRATEGIC BUSINESS UNIT – TRANSMISSION (SBU-T)

Introduction

1. SBU-Transmission (SBU-T) is vested with the functions of development and management of the transmission network in the State and is the State Transmission Utility. It manages the construction, operation and maintenance of EHT substations and transmission lines. It also co-ordinates the transmission loss reduction programme and co-ordinating the activities of transmission system development. At present SBU-T controls the State Load Despatch Centre activities and management of protection and communication systems.

2. At present it manages the voltage levels such as 220kV, 110kV, 66kV and 33kV. There are one no of 400 kV substation, 20 nos of 220kV substations, 145 nos of 110kV substations, 73 nos of 66kV substations and 136 nos of 33kV substations. The 400kV lines and other 400kV substations in the State are owned and managed by the PGCIL. There are 2801.89km of 220kV lines, 4366.34 km of 110 kV lines 2208.75 km of 66kV lines and 1828.36km of 33 kV lines in the State.

3. The SBU-T is geographically organized into two zones, the North and South, each headed by a Chief Engineer stationed at Kozhikode and Thiruvananthapuram. The system operations wing is headed by a Chief Engineer with headquarters at Kalamassery, who perform the real time management of Kerala Power System.

Revenue from operations:

4. As per the second transfer scheme order dated 31-10-2013, Government has envisaged KSEB Ltd as a single entity holding three strategic business units viz., SBU-G, SBU-T and SBU-D. The SBU-T handles the transmission assets of KSEB Ltd and manages bulk transmission of power within the State for supply to SBU-D. In other words, since SBU-T is an independent business unit, the cost of which is recovered as transfer cost from SBU-D as intra-state transmission charges.

Tariff income

5. In the petition for truing up of accounts, KSEB Ltd stated that the income of SBU-T is same as the net ARR of SBU-T, which is the transfer cost. The cost of SBU-T

is transferred to SBU-D as cost of intra-state transmission. As per the petition, transfer cost of SBU-T is Rs.751.62 crore.

6. **As against this, the Commission approves the net transfer cost for the year as Rs.666.74 crore, as detailed in in subsequent parts in this order.**

Non Tariff income

7. As per the petition, the non-tariff income reported by SBU-T is Rs.33.74 crore. This is inclusive of the transmission charges earned for Open access power transmitted. The Non- Tariff Income includes income from sale of scrap, interest on advances made to contractors, interest on staff loans and advances, Rent from buildings etc. As per the details furnished in the petition, the non-tariff income for SBU-T is Rs.33.74 crore as shown below:

Table 1

Non-Tariff income of SBU-T for 2015-16

		2015-16 (Rs. crore)	
S.No	Particulars	Audited	Truing Up requirement
	Non Tariff Income		
1	Interest on staff loans and advances	0.03	0.03
2	Income from statutory investments	0.01	0.01
3	Income from rent of land or buildings	0.19	0.19
4	Income from sale of scrap	3.14	3.14
5	Income from staff welfare activities	-	-
6	Rental from staff quarters	0.10	0.10
7	Excess found on physical verification	0.43	0.43
8	Interest on investments, fixed and call deposits and bank balances	0.01	0.01
9	Interest on advances to suppliers/contractors	0.15	0.15
10	Income from hire charges from contractors and others	0.00	0.00
11	Income due to right of way granted for paying fibre optic cables/co-axial cables on transmission system		-
12	Income from advertisements, etc.	-	-
13	Miscellaneous receipts	16.53	16.53
14	Interest on delayed or deferred payment of bills		-
15	Rebate from Central Generating Stations	13.15	13.15
	Total Non-Tariff Income	33.74	33.74

Objections of Stakeholders

8. Stakeholders have not pointed out any objections in the matter

Provisions in the Regulations

9. As per Regulation 62, the amount of non tariff income of SBU-T is to be deducted from annual fixed charges. The provision is quoted below:

> *62. Non-tariff income.– (1) The amount of non-tariff income of the transmission business/licensee as approved by the Commission shall be deducted from the aggregate revenue requirement while determining the annual transmission charges of the transmission business/licensee*

Regulation 62(2) provides the indicative list of items under non tariff income.

> *"62(2)The indicative list of items to be considered as non-tariff income are as under:-*
> *(i) interest on staff loans and advances;*
> *(ii) income from statutory investments;*
> *(iii) income from rent of land or buildings;*
> *(iv) income from sale of scrap;*
> *(v) income from staff welfare activities;*
> *(vi) rental from staff quarters;*
> *(vii) excess found on physical verification;*
> *(viii) interest on investments, fixed and call deposits and bank balances;*
> *(ix) interest on advances to suppliers/contractors;*
> *(x) income from hire charges from contractors and others;*
> *(xi) income due to right of way granted for laying fibre optic cables/co-axial cables on transmission system;*
> *(xii) income from advertisements, etc.;*
> *(xiii) miscellaneous receipts; and*
> *(xiv) interest on delayed or deferred payment on bills.*

10. KSEB Ltd has in the petition for truing up claimed Non-tariff income of Rs.33.74 crore for SBU-T.

11. ***The Commission after considering the details, approves Rs.33.74 crore the non-tariff income of SBU-T for the year 2015-16 as claimed by KSEB Ltd.***

Total Revenue from operations

12. As per the petition, the total revenue from operations for SBU-T is Rs.785.37 crore including non-tariff income, the details of which is furnished below:

Table 2

Total Revenue of SBU-T for the year 2015-16

	As per Petition (Rs. crore)	Approved in Truing up (Rs.crore)
Revenue from Transfer Cost	751.63	666.74
Non-Tariff income	33.74	33.74
Total Income	**785.37**	**700.48**

13. ***The Commission approves Rs.666.74 crore as transfer cost to SBU-D and Rs.700.48 crore as total income from operations for the purpose of Truing up. The difference in approved income and income as per the petition is mainly on account of the expenses components of approved transfer cost (Rs.666.74 crore)***

Expenses of SBU-T

14. As per the details furnished by KSEB Ltd in the petition, the expenses of for SBU-T inclusive of Return on equity is Rs.785.36 crore as shown below:

Table 3

ARR of SBU-T as per Petition

No	Particulars	Amount Rs. crore
1	Interest & Financial Charges	49.63
2	Depreciation	133.04
3	O&M Expenses	390.86
4	Return on equity (14%)	217.59
5	Other debits and prior period income	(5.76)
6	ARR	785.36
7	Less: Income	33.74
8	Net ARR (Cost Transferred to SBU-D as Cost of Intra-state transmission)	751.62

15. Based on the above submission, the Commission has carried out a prudence check of each of the above heads of expenditure viz-a-viz the Regulations as indicated below:

O&M Expenses

16. O&M expenses comprised of Employee expenses, R&M and A&G expenses. According to KSEB Ltd, total O&M cost for the year 2015-16 of SBU-T was Rs.390.86 crore. The split up details of actual O&M expenses in to Employee expenses, R&M Expenses and A&G expenses as per the accounts and the petition are given below

Table 4
Components of O&M cost of SBU-T

No	Particulars	Amount (Rs crore)
1	Employee Cost	292.54
2	R&M Expenses	47.91
3	A&G Expenses	50.41
4	Total	390.86

17. As per the Regulations, O&M cost of Transmission is governed by the following two parameters ie., no. of bays and length of circuit lines. According to KSEB Ltd, the norms as per the Regulation 29(4) (a) of CERC (T&C of Tariff) Regulations, 2014 for the bay is Rs. 34.66 Lakh (weighted average for 220 kV and 132 kV and below) and Rs.0.313 lakh for (Double Circuit single conductor) lines. If the same norms are applied, the permissible O&M cost would be (2406 x Rs. 34.36 Lakhs + 9303.68 km x 0.313 =) Rs. 863.04 crore. Hence, KSEB Ltd requested for approving the actual O&M expense for the year as the same is much lower than CERC allowed costs.

18. The component wise O&M expense reported by KSEB Ltd is as shown below.

Employee expenses

19. The employee expenses booked and claimed for SBU-T is Rs.292.54 crore out of Rs.390.86 crore of O&M expenses. The amount of employee expenses as per the petition is inclusive of the terminal benefits. The terminal benefits booked for SBU-T is Rs.37.09 crore out of Rs.1004.50 crore for KSEB Ltd. The split up details of employee expenses for SBU-T given by KSEB Ltd as per the petition is given below:

Table 5

Split up details of employee cost and provisions for SBU-T for 2015-16

Sl.No	Particulars	Audited accounts (Rs. crore)	As per Petition (Rs. crore)
1	Basic Salary	136.38	136.38
2	Dearness Allowance (DA)	115.56	115.56
3	House Rent Allowance	2.22	2.22
4	Conveyance Allowance	0.00	0.00
5	Leave Travel Allowance	0.00	0.00
6	Earned Leave Encashment	19.93	19.93
7	Other Allowances	1.37	1.37
8	Medical Reimbursement	1.01	1.01
9	Overtime Payment	0.00	0.00
10	Bonus/Ex-Gratia Payments	0.82	0.82
11	Interim Relief / Wage Revision	0.00	0.00
12	Staff welfare expenses	0.10	0.10
13	VRS Expenses/Retrenchment Compensation	0.00	0.00
14	Commission to Directors	0.00	0.00
15	Training Expenses	0.00	0.00
16	Payment under Workmen's Compensation Act	0.00	0.00
17	Net Employee Costs	277.40	277.40
18	Terminal Benefits	37.09	37.09
18.1	Provident Fund Contribution	0.00	0.00
18.2	Provision for PF Fund	0.00	0.00
18.3	Pension Payments	0.00	0.00
18.4	Gratuity Payment	0.00	0.00
18.5	Annual Contribution for Terminal Liabilities based on actuarial valuation	0.00	0.00
19	Others	0.02	0.02
20	Gross Employee Expenses	314.49	314.49
21	Less: Expenses Capitalised	21.94	21.94
22	Net Employee Expenses	292.54	292.54

20. The total employee expenses including terminal liabilities booked is Rs.292.54 crore out of the total Rs.3104.54 crore for KSEB Ltd.

21. In the Petition, KSEB Ltd has made a provision for pay revision which is due from 2013, aggregating to an amount of Rs.567 crore for the years 2013-14, 2014-15 and 2015-16. The revision of pay and allowance are effective from 01.07.2013 for officers and from 01.08.2013 for workmen. SBU wise details of provision for pay revision were not furnished in the petition.

Judgment of High Court in Writ Petition WPC No.465/2015(G)

22. As mentioned in Chapter 1, after the notification of the Regulations, KSEB Ltd challenged the validity of the said Regulations before the Hon'ble High Court of Kerala in the Writ Petition WPC No.465/2015(G). The main contention of KSEB Ltd was that the O&M norms for determining the expenditure specified in the Regulations are inadequate, resulting in under recovery of its expenses. Hon'ble High Court on 28-02-2018 issued the final judgment and disposed of the petition WP(C) 465/2015. Hon High Court directed the Commission to pass order on the application of the petitioner KSEB Ltd for truing up of accounts for the years 2015-16, 2016-17, 2017-18 with due regards to the findings in APTEL Judgments in Appeal Nos. 1 and 19 of 2013 and consequential orders passed by the Commission for 2010-11 onwards, in the case of KSEB Ltd. The relevant portion of the judgment of the Hon. High Court is quoted below:

> *"In view of the submission made by learned senior counsel that the Commission would take into account Ext.P6 judgment of the APTEL while taking up the applications for truing up of accounts, I direct the 1st respondent to pass orders on the applications of the petitioner for truing up of accounts for the year 2015-16, 2016-17, and in 2017-18 with due regard to the findings in Ext.P6 judgment and the consequential orders passed by the commission for the year 2010-11 onwards in the case of petitioner."*

23. In order to comply with the Hon'ble High Court direction, the Commission sought clarifications from KSEB Ltd for implementing the judgment of Hon. High Court. KSEB Ltd in their submission dated 28-5-2018 furnished the methodology to be adopted for estimating the O&M expenses as per the Judgment of Hon.High Court. The proposal of KSEB Ltd is given below:

> "*1.The Tariff Regulations, 2014 O&M norms were framed from single year value (that is 2010-11). Instead of that year, the trued up value for more*

recent FY 2013-14 as per order (dated 20.06.2017) may be taken as the base year, in line with Tariff policy and regulations. The pay revision provision may be deducted from the trued-up value and the balance figure be apportioned to the three SBUs based on the allocation factors as per Statement 6 adopted in the Tariff Regulations, 2014. The base values, then, may be normalized with the asset parameters adopted in the Tariff Regulations, 2014.

1. CERC methodology may be adopted for arriving at the escalation factor. The actual increase in normalized O&M cost for the period 2009-10 to 2013-14 be analyzed and an efficiency factor of 1% be adopted on the actual O&M. This efficiency factor of 1% is deducted from the actual rate of increase in O&M for arriving at the applicable escalation factor. The escalation factor for Generation, Transmission and Distribution computed as above are Generation : 10%, Transmission: 15% and Distribution : 6.36%. The above escalation percentages are then adopted for escalating the 2013-14 values to 2015-16, 2016-17 and 2017-18.

2. *The O&M norms for Generation, Transmission and Distribution so arrived for the years 2015-16, 2016-17 and 2017-18 are given in the table below*.

Table 1 : O&M Cost norms for SBUs			
Generation			
Financial Year	***2015-16***	***2016-17***	***2017-18***
	99.01	*108.91*	*119.80*
Transmission			
Financial Year	***2015-16***	***2016-17***	***2017-18***
Rs.Lakh/bay	*8.07*	*9.28*	*10.67*
Rs.Lakh/Ckt-km	*0.89*	*1.02*	*1.18*
Distribution			
Employee Cost			
Financial Year	***2015-16***	***2016-17***	***2017-18***
Rs.Lakh'000 consumer	*3.55*	*3.78*	*4.02*
Rs.Lakh/dist transformer	*0.49*	*0.52*	*0.56*
Rs.Lakh/HT line	*0.59*	*0.62*	*0.66*
Rs/unit	*0.15*	*0.16*	*0.17*
Administrative & General Expenses			
Financial Year	***2015-16***	***2016-17***	***2017-18***
Rs.Lakh'000 consumer	*0.25*	*0.26*	*0.28*
Rs.Lakh/dist transformer	*0.03*	*0.04*	*0.04*
Rs.Lakh/HT line	*0.04*	*0.04*	*0.05*
Rs/unit	*0.01*	*0.01*	*0.01*
R&M Cost : *3% of GFA*			

3. Pay revision expenses chargeable for the year 2015-16 may be added over and above the normative O&M cost.

4. Thus the O&M Cost thus calculated as per the above norms and the pay revision expenses actually charged for the year 2015-16 is as tabulated below:

Table-2: O&M cost proposed for 2015-16 (Rs. crore.)				
Item	***O&M as per proposed norms***	***Pay revision***	***Total***	***Actual O&M expenses as per truing up petition (excl terminal liabilities)***
Generation	*99.01*	*9.61*	*108.62*	*143.90*
Transmission	*276.96*	*15.43*	*292.39*	*353.79*
Distribution				
Employee Cost	*1372.51*	*184.27*	*1556.78*	*1733.10*
A&G Cost	*95.61*		*95.61*	*149.79*
R&M Cost	*182.84*		*182.84*	*185.82*
Total	***2026.93***	***209.31***	***2236.24***	***2566.40***

24. As shown above, according to KSEB Ltd, the O&M expenses would work out to Rs.2236.24 crore if the judgment of Hon. High Court is complied with. Out of this, employee cost is Rs.1957.79 crore (Rs.108.62 crore +Rs.292.39 crore + Rs.1556.78 crore). In the above working, KSEB Ltd has recalculated the norms for determination of O&M expenses considering the actual escalation in O&M expenses rather than the escalation factor used in the Regulations. KSEB Ltd also considered the provision for pay revision separately.

25. KSEB Ltd in their letter dated 28-5-2018 had also submitted that since the agreements with the recognized trade unions are to be honoured and considering the fact that substantial increase in physical assets are to be managed, the actual employee cost and terminal benefits may be allowed in the truing up.

26. Further to the above, in the letter dated 7-6-2018, KSEB Ltd clarified that the provision for pay revision given in 2015-16 is inclusive of the shortfall in this provision in accounts for the years 2013-14 and 2014-15. The truing up petitions for 2013-14 and 2014-15 were filed on the basis of audited accounts, and since the implementation of the pay revision occurred during 2015-16, the actual impact of the full pay revision was not captured in the previous years accounts. Hence, KSEB Ltd requested to consider the provision of Rs.339.00 crore made as per the accounts for 2015-16, while truing up the employee costs for KSEB Ltd. If the

claim of provision for pay revision of Rs.339 crore for the year 2015-16 is considered instead of the earlier claim of Rs.209.31, the employee cost sought for the year would be Rs.2365.93 crore (Rs.2236.24 crore - Rs.209.31cr + Rs.339 crore).

27. Since the reply furnished by KSEB Ltd was not in line with the directions of APTEL, the Commission in its letter dated had again sought from KSEB Ltd the details for calculating employee cost as per the directions of APTEL in its order in Appeal Nos. 1 and 19 of 2013. KSEB Ltd in its reply furnished vide letter dated 10-7-2018 details in respect of the employee cost booked during the year 2015-16 in respect of those who are recruited after 1-4-2009. KSEB Ltd stated in their letter dated 10-7-2018 had stated that in order to determine the salaries and allowances actually disbursed in 2015-16 to employees recruited after 1-4-2009 (8899 nos in total for March 2016), the details were extracted from the HRIS software, which works out to Rs.288.10 crore. However, the employee strength in 2016 was 32440 employees and the no.of employees exceeded from the level at the 2008-09 (27175) was 5265nos. The balance employees (8899-5265) were replacement for the retired employees. Thus the pro-rata employee expenses including other expense attributable to 5265 employees is Rs.170.45 crore.

28. KSEB Ltd further stated that Hon. APTEL has ordered to allow at least the pay and allowances for the staff strength a on 1-4-2009 and it is not a ceiling limit. Further, revision of other allowances forms an integral part of the agreements reached between the management and trade unions as envisaged in the APTEL Order in Appeal Nos.1 and 19 of 2013.

29. In respect of pay revision expenses, KSEB Ltd in their additional submissions dated 21-6-2018 furnished that of the provision of Rs.339 crore for pay revision, Rs.31.93 crore is attributable to employees recruited after 2009.

30. Thus according to KSEB Ltd, the cost attributable to increased staff strength in 2016 over 2009 inclusive of pay revision benefits works out to Rs.202.38 crore (Rs.170.45 crore+Rs.31.93 crore). KSEB Ltd did not provide SBU wise details of revised claim of employee expenses.

Provisions in the Regulations

31. In the case of SBU-T, as per Regulation 60, O&M expenses are to be determined as shown below:

> *"60. Operation and maintenance expenses.–The transmission business/licensee shall be allowed to recover operation and maintenance expenses as per the norms specified in Annexure-VIII to these Regulations for each financial year of the control period:*
>
> *Provided that the transmission business of KSEB Limited shall be allowed to recover the annual pension contribution to the Master Trust, based on actuarial valuation, in respect of the personnel allocated to the transmission business of KSEB Limited, in addition to the above specified normative operation and maintenance expenses.*
>
> *Explanation :*
>
> *(i) For the purpose of deriving normative O&M expenses, 'bay' shall mean a set of accessories that are required to connect an electrical equipment at 66 kV and above voltages such as transmission line, bus section breakers, potential transformers, power transformers, capacitors and transfer breaker and the feeders emanating from the bus at sub-station of the transmission business/licensee.*
>
> *(ii)For the purpose of deriving normative O&M expenses, 'ckt km' means the length in circuit kilometres, of the transmission lines at voltages of and above 66 kV."*

32. As per Annexure VIII of the Regulations, the O&M expenses are specified as given below:

Annexure-VIII

O&M norms for the transmission business of KSEB Limited and transmission licensee

Particulars	***FY 2015-16***	***FY 2016-17***	***FY 2017-18***
O&M expenses per bay (Rs. lakh)	*5.23*	*5.54*	*5.86*
O&M expenses per ckt km (Rs. lakh)	*0.58*	*0.61*	*0.65*

Explanation*: The O&M expenses for any year of the control period shall be allowed by multiplying the O&M norms for that year with the actual number of bays and transmission line length in ckt km for the previous year, i.e., the O&M expenses for FY 2015-16 shall be allowed by multiplying the O&M norms for FY 2015-16 with the actual number of bays and transmission line length in ckt km for FY 2014-15.*

Analysis and decision of the Commission

33. KSEB Ltd in their truing up petition has sought Rs.292.54 crore towards employee expenses of SBU-T, which is inclusive of Rs.37.09 crore terminal liabilities. The net employee cost excluding terminal liabilities is Rs.255.45 crore for SBU-T, which is 12.16% of the total employee expenses of Rs.2100.04 crore excluding terminal benefits for KSEB Ltd.

34. As per the provisions of Regulations employee cost of SBU-T is allowed on a normative basis, excluding terminal benefits. Terminal benefits are regulated under proviso to Regulation 60, which stipulates that the Transmission business of KSEB Limited shall, subject to prudence check by the Commission, be allowed to recover, in addition to the above specified normative operation and maintenance expenses, the annual pension contribution to the Master Trust, based on actuarial valuation in respect of the personnel allocated to the generation business of KSEB Limited. The recovery of expenses for the Master Trust is provided under Regulation 31. Hence the expenses under terminal benefits are treated separately.

35. As per Regulation 60, SBU-T is entitled for recovery of O&M expenses (employee costs, R&M expenses, A&G expenses) in a composite manner benchmarking against the no. of bays and circuit length (kms). However, in view of the judgment of the Hon. High Court, employee cost has to be determined separately in line with directions of APTEL in Appeal Nos. 1 and 19 of 2013. As mentioned in Chapter 1, after the notification of the Regulations, KSEB Ltd challenged the validity of the said Regulations before the Hon'ble High Court of Kerala in the Writ Petition WPC No.465/2015(G). In the said writ petitions, the main contentions of KSEB Ltd was that the Commission while specifying the Regulations, has deviated from the scheme of the Electricity Act 2003 and findings of the judgment of the APTEL in Appeal Nos. 1 and 19 of 2013 has not reflected in the Regulations. Further, the approval of accounts by the Commission under the Regulations would result in under recovery of reasonable costs through tariff. It was also pointed out before the Hon.High Court that if the truing up of accounts for the year 2014-15 onwards are also considered in the light of the revised orders passed for the year 2010-11 onwards in tune with the judgments of the APTEL, the difficulties faced by the petitioners on account of the Regulations would be redressed to some extent. The Commission had submitted before the Hon High Court that while taking up the truing

up applications of the petitioner for the years 2015-16, 2016-17 and 2017-18, the Commission would take into account the judgment of the APTEL and the consequential orders passed thereafter.

36. In the light of the submissions of the parties, Hon. High Court in the judgment dated 28-2-2018, directed the Commission to pass appropriate orders on the truing up applications of KSEB Ltd for the year 2015-16 to 2017-18 with due regard to the finding of the Orders of the APTEL in Appeal Nos. 1 and 19 of 2013 and also the consequential orders on Truing up passed for the years 2010-11 onwards. Therefore, the Commission has approved the employee cost of KSEB Ltd as per the direction of the Hon. High Court of Kerala, with reference to the Order of APTEL in Appeal Nos. 1 and 19 of 2013.

37. Hon'ble APTEL vide the common judgment dated 10-11-2014 had decided on the issues raised in the Appeal Nos. 1 of 2013 and 19 of the 2013. In their appeal before the Hon'ble APTEL, against the order dated 30-10-2012 on the truing up of accounts of KSEB for the year 2010-11 and the order dated 28-4-2012 on the ARR&ERC of KSEB for the year 2012-13 had raised a number of common issues including i) Employees cost ii) Repair and Maintenance Expenses iii) Administrative and General Expenses iv) Return on Equity v) Depreciation vi) Capitalization of Expenses

38. Paragraph 8.3 to 8.6 of judgment of Hon'ble APTEL pertains to the observation and directions regarding the employee cost and related matters, which are extracted below.

> *"8.3 We find that the State Commission in the impugned order dated 28.04.2012 has shown concern about the high employees cost and non-compliance of the directions given by the State Commission in this regard. The State Commission has noted that without a scientific study on manpower requirements, the recruitments are continuing and about 1000 persons are added every year. The State Commission has decided to benchmark employees expenses based on the base year expenses escalated at price indices. The State Commission has used FY 2008-09 as the base year since latest true-up was carried out for 2008-09. The State Commission provided 3% increase in basic pay for accounting for increments. The other components are benchmarked based on CPI/WPI indices with weightage of 70:30 for estimating the increase in employees cost. Thus, while basic pay was increased by 3% the other components of employees expenses viz. DA allowances, terminal benefits, pay*

revision, etc., were increased as per CPI/WPI indices with weightage of 70:30 (CPI:WPI).

8.4 The State Commission has rightly shown concern about the high employees cost but we are not able to appreciate magnitude in the absence of a specific finding about the excess manpower and non-availability of Regulations. We feel that DA increase which is effected as per the Government orders have to be accounted for and allowed in the ARR as it compensates the employees for the inflation. The pay revision as per the agreements reached between the management and the unions have also to be honoured. The terminal benefits have also to be provided for.

8.5 We find that the State Commission has taken the actual expenses trued-up for FY 2008-09 as the base. The State Commission should have at least allowed the actual basic pay and DA increase, pay revision and terminal benefits over the actual base year expenses without accounting for increase in manpower from 2008-09 to 2012-13. The gratuity directed to be paid as per the judgments of the High court dated 10.03.2003 as the Division bench of the High Court had dismissed the Appeal filed against this judgment, and which were disallowed by the State Commission by order in Appeal no. 1 of 2013 should also be allowed.

8.6 Accordingly, we direct the State Commission to true-up the employees cost from FY 2010-11 to FY 2012-13, as per the above directions.

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iv) The State Commission also conducted examination of Repair and Maintenance expenses of one of the Divisions of the Board through its staff in order to understand the nature of increase in Repair and Maintenance expenses and found that 36% of the expenses booked as Repair and Maintenance expenses were misclassified as revenue expenses.

9.6 In view of above findings of the State Commission, we do not incline to interfere with the findings of the State Commission. Thus, this issue is decided against the Appellant.

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10.3 We find that the State Commission has allowed escalation on the basis of CPI & WPI indices with weightage of 70:30 over the actual A&G expenses for FY 2008-09. The Appellant Board has not been able to give a satisfactory reply to the substantial increase in A&G expenses.

10.4 We do not find any infirmity in the findings of the State Commission."

39. It is clear from the above judgment of Hon'ble APTEL that in the case of employee cost, the Commission shall allow at least allow actual basic pay and DA increase, pay revision and terminal benefits over the actual base year expenses without accounting for increase in manpower from 2008-09 to 2012-13.

40. Regarding R&M expenses, Hon'ble APTEL has remarked that

> *"in view of above findings of the State Commission, we do not incline to interfere with the findings of the State Commission. Thus, this issue is decided against the appellant".*

41. As far as KSEB Ltd prayer regarding increase in allowing A&G expenses beyond Regulations norms, Hon'ble APTEL had stated that :

> *"we find that the State Commission has allowed escalation on the basis of CPI & WPI indexes with weightage of 70: 30 over the actual A&G expenses for FY 2008-09. The Appellant Board has not been able to give a satisfactory reply to the substantial increase in A&G expenses. We do not find any infirmity in the findings of the State Commission."*

42. From combined reading of the Judgment of the Hon.High Court and Hon. APTEL, it can be inferred that in the case of employee costs, *the actual basic pay and DA thereon, pay revision and terminal benefits over the actual base year expenses for the level of employees during the year 2008-09, should be provided for*. Further, the terminal benefit paid is also required to be allowed in full. Therefore, the provisions of the Regulations regarding employee costs have been modified to this effect. However, in the case of R&M and A&G expenses, since the Regulations have been upheld, the provisions of the Regulations remain.

43. In the light of the above orders the issue of employee expense other than terminal benefits is taken up first in the subsequent sections.

44. The Commission has examined the proposal of KSEB Ltd regarding the approval of employee cost under O&M expenses as per the judgment of Hon. High Court. The Commission notes that KSEB Ltd in their proposal furnished vide clarifications dated 28-5-2018 attempted to recast the O&M norms applying the actual increase in the expenses, which are not in line with the orders of the APTEL. Since the directions of Hon. High Court in the order dated 28-2-2018, lacks no ambiguity, the Commission is not in a position to consider the proposal of KSEB Ltd, furnished vide letter dated 28-5-2018.

45. Subsequent to this, in reply to the clarification sought by the Commission dated 6-7-2018, KSEB Ltd vide letter dated 10-7-2018 has furnished the actual disbursement of pay and allowances, pay revision expenses of the employees recruited after 2009. The total addition to the employees from 2009 was 8899. In the said letter, KSEB Ltd has stated the strength of employees in 2016 was 32440 and that in 2009 is 27175. Thus the net increase in employee is 5265, considering the retirements. As per the details furnished, the total amount of disbursements for the year 2015-16 excluding pay revision was Rs.288.10 crore for KSEB Ltd as a whole for the 8899 employees recruited after 1-4-2009 and Rs.170.45 crore for the net increase in employees (5265 nos) from 2009 level (32440-27175). The pay revision expenses relating to the 5265 employee is reported at Rs.31.93 crore. Thus the total disbursements including pay revision for the increase in employees of 5265 from 2009 is Rs.202.38 crore (Rs.170.45 crore+Rs.31.93 crore).

46. Thus, in line with the Orders of Hon. APTEL, employee expenses without accounting for the increase in manpower from 2008-09 can be estimated by deducting the employee expenses on account of the net increase in additional employees from the 2009 level from the total employee cost for the year. As mentioned above, the employee cost for KSEB Ltd excluding terminal liabilities was Rs.2100.04 crore. As furnished by KSEB Ltd in its letter dated 10-7-2018, the employee cost of additional employees is Rs.202.38 crore. Hence, the allowable expenses excluding terminal liabilities for KSEB Ltd is Rs.1897.66 crore (Rs.2100.04cr - Rs.202.38cr).

47. **On a pro-rata basis, the employee cost for SBU-T will be 12.16% of Rs.1897.66 crore ie., Rs.230.83 crore if determined as per the directions of the Hon APTEL and judgment of Hon. High Court of Kerala.**

Table 6

Approved employee cost for SBU-T

	SBU-T (Rs. crore)	KSEB Ltd (Rs. crore)
Employee Cost as per Accounts/Petition	292.54	3,104.53
Less Terminal Benefits	37.09	1,004.50
Net Employee costs	255.45	2,100.03
Net employee cost of SBU-T as a percentage	12.164%	
Net cost of additional employees as per the letter dated 10-7-2018		202.38
Balance Employee cost		1,897.65
Employee cost attributable to SBU-T	**230.83**	

48. The employee cost thus approved for the year 2015-16 is as Rs.230.83 crore

Table 7

Employee cost Approved for SBU-T for 2015-16

	As per Petition (Rs. crore)	Approved (Rs. crore)
Employee Costs (Excluding terminal liabilities)	255.45	230.83

49. ***The Commission approves Rs.230.83 crore as the total employee cost excluding terminal liabilities approved for SBU-T for 2015-16***

R&M Expenses

50. The R&M expenses of SBU-T claimed by KSEB Ltd for the year 2015-16 as per the petition was Rs.47.91 crore, out of the total O&M expenses of Rs. 390.86 crore. KSEB Ltd stated that the business activity of KSEB Ltd has been continuously increasing over several decades. The average growth in respect of number of consumers, their electricity requirement and fixed assets during last 10 years has been 3.65%, 7.56% and 9.61% respectively. Correspondingly the physical assets of KSEB Ltd have also increased substantially. The 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.

51. According to KSEB Ltd, substantial portion of R&M expenses was incurred under Line, cable network etc and plant and machinery. Further, expenses under line, cable network have incurred mainly under distribution SBU and repairs to plant and machinery under Transmission. KSEB Ltd stated that the function wise breakup of R&M expenses as a percentage of GFA works out to 1.23% for SBU-T as given below.

Table 8
R&M expenses as a % of GFA

Particulars	GFA at the beginning of the Year 2015-16	R&M Expenses 2015-16	R&M Expenses as a % of GFA 2015-16	Functional GFA as a % of total GFA for 2015-16
	(Rs.crore)	(Rs.crore)	%	%
Generation	4033.36	25.92	0.64	27.40
Transmission	3844.45	47.91	1.23	27.07
Distribution	6325.64	186.50	2.95	44.53
Total	14203.45	259.76	1.83	100.00

52. Split up details of R&M expenses of SBU-T furnished by KSEB Ltd are given below:

Table 9
SBU wise Split up details of R&M expenses

S. No.	Particulars	As per petition (Rs. crore)
1	Plant and machinery	35.25
2	Buildings	2.15
3	Civil Works	4.00
4	Hydraulic Works	0.04
5	Lines & Cable Networks	4.73
6	Vehicles	1.21
7	Furniture & Fixtures	0.08
8	Office Equipment	0.45
9	**Gross R&M Expenses**	**47.91**
10	Less: Expenses Capitalised	
11	**Net R&M Expenses**	**47.91**

Provisions of the Regulations

53. In the case of SBU-T, O&M expenses are determined under Regulations 60 in a composite manner. Since out of the O&M expenses, employee costs is

determined as per the directions of the Hon. High Court of Kerala, the other components of O&M expenses such as R&M expenses and A&G expenses are determined as per the norms in the Regulations.

Analysis and decision of the Commission

54. The R&M expenses of SBU-T claimed by KSEB Ltd for the year 2015-16 as per the petition was Rs.47.91 crore. As mentioned above, the O&M expenses for SBU-T is arrived at in a composite manner benchmarking against the no. of bays and circuit length (kms). As per the Hon APTEL judgment the R&M expense and A&G expenses have to be determined as per the provisions of Regulations. Thus, R&M expenses and A&G expenses are to be separated from the composite norms of O&M expenses. This can be done based on the base figures provided in the Note to the Regulations.

55. Segregated norms based on number of bays for SBU-T are as shown below:

Table 10
O&M expenses as per No. of Bays

	Rs. lakh per Bay		
	2015-16	2016-17	2017-18
Employee cost	2.88	3.05	3.23
R&M expenses	***1.90***	***2.09***	***2.13***
A&G Expenses	***0.45***	***0.48***	***0.51***
Total O&M expenses	**5.23**	**5.54**	**5.86**

56. As shown above, as per the Regulations, composite norms for the number of bays is Rs.5.23 lakh per bay. Of this, R&M expenses for SBU-T based on number of Bays is Rs.1.90 lakh per bay. Similarly, norms based on circuit km is given below:

Table 11
O&M expenses as per circuit kms

	Rs.lakh/circuit km		
	2015-16	2016-17	2017-18
Employee cost	0.32	0.34	0.36
R&M expenses	***0.21***	***0.22***	***0.23***
A&G Expenses	***0.05***	***0.05***	***0.06***
Total O&M expenses	**0.58**	**0.61**	**0.65**

57. As shown above, as per the Regulations, composite norms for circuit kilometers is Rs.0.58 lakh per circuit km. Of this, R&M expenses for SBU-T based on circuit km is Rs.0.21 lakh per circuit km

58. As shown above, in the case of SBU-T, the R&M expenses have to be determined based on the operational parameters such as number of bays and circuit kilometres. The operational parameters applicable for the SBU-T for estimation of O&M cost is that of the year ending 2014-15. As per the details furnished by KSEB Ltd in the petition, the no. of bays and circuit km at the end of the year 2014-15 beginning of the year 2015-16 is as shown below.

Table 12

Operational parameters for SBU-T for estimation of O&M expenses

Item	2014-15
No. of Substation Bays*	2406
Transmission lines (Ckt KMs)	9303.68

**excluding 33kV bays*

59. Based on the above, the R&M expenses applicable for SBU-T for the year 2015-16 is estimated as shown below:

Table 13

R&M expenses applicable to SBU-T as per the Regulations

Parameters	2014-15	Norms as per Regulation (Rs.lakh/bay/Circuit km)	Allowable R&M expenses for 2015-16 (Rs.crore)
1	2	3	4=2x3/100
No. of Substation Bays	2406	***1.90***	45.71
Transmission lines (Ckt kms)	9303.68	***0.21***	19.54
Total R&M expenses as per Regulation			**65.25**

60. As shown above, the R&M expenses allowable to SBU-T as per the provisions of the Regulations is Rs.65.25 crore as against KSEB Ltd petition of Rs.47.91 crore.

Table

R&M expenses approved for SBU-T for 2015-16

	As per petition (Rs. crore)	Approved for Truing up (Rs. crore)
R&M Expenses	47.91	65.25

61. ***The Commission approves Rs.65.25 crore as R&M expenses for SBU-T for 2015-16 for the purpose of truing up.***

A&G expenses

62. As per the petition the A&G expenses booked is Rs.50.41 crore out of the total Rs.327.86 crore for KSEB Ltd. The split up details of A&G expenses is shown below:

Table 14
A&G expenses under SBU-T

Sl. No.	Particulars	SBU-T (Rs. crore)	KSEB Ltd (Rs. crore)
1	Rent Rates & Taxes	0.39	**7.57**
2	Insurance	0.04	**0.25**
3	Telephone & Postage, etc.	1.43	**3.93**
4	Legal charges	0.39	**2.13**
5	Audit Fees	0.02	**0.19**
6	Consultancy charges	0.01	**0.09**
7	Other Professional charges	0.36	**1.13**
8	Conveyance	5.82	**56.07**
9	Vehicle Running Expenses Truck / Delivery Van	0.16	**0.83**
10	Vehicle Hiring Expenses Truck / Delivery Van	0.13	**2.41**
11	Electricity charges	0.06	**6.57**
12	Water charges	0.08	**0.37**
13	Entertainment	0.11	**0.56**
14	Fees & subscription	0.21	**0.63**
15	Printing & Stationery	0.90	**10.71**
16	Advertisements, exhibition publicity	0.32	**1.30**
17	Contribution/Donations	0.35	**1.20**
18	Training expenses	0.03	**2.58**
19	Miscellaneous Expenses	0.60	**5.06**
20	DSM activities	0.00	**0.01**
21	SRPC expenses	0.13	**0.38**
22	Sports and related activities	0.11	**0.36**
23	Freight	3.46	**10.11**
24	Purchase Related Advertisement Expenses	0.58	**1.46**
25	Bank Charges	0.00	**0.06**
26	Office Expenses (Operating Expenses)	37.35	**91.84**
27	License Fee and other related fee	1.24	**3.80**
28	Cost of services procured	0.00	**0.00**
29	Outsourcing of metering and billing system	0.00	**0.00**
30	V-sat, Internet and related charges	0.06	**0.14**
31	Security arrangements	0.00	**0.00**

Sl. No.	Particulars	SBU-T (Rs. crore)	KSEB Ltd (Rs. crore)
32	Books & periodicals	0.01	**0.05**
33	Computer Stationery	0.00	**0.00**
34	Others	0.06	**0.95**
	Others- Other Purchase related Expenses	1.25	**3.33**
	Others - Expenditure in connection with distribution of LED	2.78	**12.89**
35	**Gross A&G Expenses**	**58.41**	**228.96**
36	**Ele. Duty u/s 3(I), KED Act**		111.37
37	Less: Provisions utilized	1.27	4.39
38	Add: Provisions created	2.36	8.13
37	Less: Expenses Capitalized	9.10	16.21
38	**Net A&G Expenses**	**50.40**	**327.86**

63. The total A&G expenses of KSEB Ltd is inclusive of Electricity Duty under Section 3 of Electricity Duty Act, However, Electricity duty is not applicable to SBU-T.

Objections of the Stakeholders

64. There is no specific objection raised by stakeholders regarding O&M expense of SBU-T.

Analysis and decision of the Commission

65. The A&G expenses of SBU-T claimed by KSEB Ltd for the year 2015-16 as per the petition were Rs.50.41 crore. As shown above, the O&M expenses for SBU-T is estimated in a composite manner benchmarking against no. of bays and circuit length and not separately viz., R&M expenses, employee cost and A&G expenses. Since the employee expense has been determined as per the judgment of Hon. High Court and Hon APTEL, the balance component ie., R&M expense and A&G expenses have to be determined as per the provisions of Regulations. Thus, R&M expenses and A&G expenses are to be separated from the composite norms of O&M expenses. This can be done based on the base figures provided in the Note to the Regulations.

66. Segregated norms based on No. of bays for SBU-T can be apportioned as shown below:

Table 15
O&M expenses as per No. of Bays

	Rs. lakh per Bay		
	2015-16	2016-17	2017-18
Employee cost	2.88	3.05	3.23
R&M expenses	***1.90***	***2.01***	***2.13***
A&G Expenses	***0.45***	***0.48***	***0.51***
Total O&M expenses	**5.23**	**5.54**	**5.86**

67. As shown above, as per the Regulations, composite norms for number of bays is Rs.5.23 lakh per bay. Of this, A&G expense for SBU-T based on number of Bays is Rs.0.45 lakh per bay. Similarly norms based on circuit km is given below:

Table 16
O&M expenses as per circuit kilometers

	Rs.lakh/circuit km		
	2015-16	2016-17	2017-18
Employee cost	0.32	0.34	0.36
R&M expenses	***0.21***	***0.22***	***0.23***
A&G Expenses	***0.05***	***0.05***	***0.06***
Total O&M expenses	**0.58**	**0.61**	**0.65**

68. As shown above, as per the Regulations, composite norms for circuit kilometers is Rs.0.58 lakh per bay. Of this, A&G expenses for SBU-T based on circuit kilometers is Rs.0.05 lakh per circuit km

69. As shown above, in the case of SBU-T, A&G expenses have to be determined based on the operational parameters such as number of bays and circuit kilometres. The operational parameters applicable for the SBU-T for estimation of O&M cost is that of the year 2014-15. As per the details furnished by KSEB Ltd in the petition, the number of bays and circuit km at the at end of the year 2014-15 beginning of the year 2015-16 is as shown below.

Table 17

Operational parameters under SBU-T for estimation of O&M expenses

Item	2014-15
No. of Substation Bays*	2406
Transmission lines (Ckt KMs)	9303.68

**excluding 33kV bays*

70. Based on the above, the A&G expenses applicable for SBU-T for the year 2015-16 is estimated as shown below:

Table 18

A&G expenses applicable to SBU-T as per the Regulations

Parameters	2014-15	Norms as per Regulation (Rs.lakh/bay/Circuit km)	Allowable A&G expenses for 2015-16 (Rs.crore)
1	2	3	4=2x3/100
No. of Substation Bays	2406	***0.45***	10.83
Transmission lines (Ckt kms)	9303.68	***0.05***	4.65
Total A&G expenses as per Regulation			**15.48**

71. The A&G expenses allowable to SBU-T as per the provisions of the Regulations is Rs.15.48 crore.

Table 19

A&G expenses approved for SBU-T for 2015-16

	As per petition (Rs. crore)	Approved for Truing up (Rs. crore)
A&G Expenses	50.41	15.48

72. ***As shown above, the A&G expenses allowable to SBU-T as per the provisions of the Regulations is Rs.15.48 crore as against KSEB Ltd claim of Rs.50.41 crore.***

Approved O&M Expenses excluding terminal liabilities

73. The total O&M expenses approved for 2015-16 considering the provisions of the Regulations and the impact of the Order of the Hon. High Court for SBU-T is as shown below:

Table 20

O&M expenses except terminal benefits approved for SBU-T for 2015-16

	As per Petition (Rs. crore)	Approved (Rs. crore)
Employee Costs	255.45	230.83
R&M Expenses	47.91	65.25
A&G expenses	50.41	15.48
Total O&M Expenses	353.77	311.56

Terminal benefits

74. KSEB Ltd has sought Rs.37.90 crore towards terminal benefits for SBU-T, as part of the employee expenses. However, Regulations require the terminal benefits to be treated separately.

Provisions of the Regulations

75. The funding of terminal liabilities have been provided under Regulation 31 as shown below:

31. Interest on bonds issued by KSEB Limited to service the terminal liabilities of its employees. – (1) The interest on the bonds issued by KSEB Limited to service the terminal liabilities of its employees shall be allowed for recovery through tariffs, at the rates stipulated in the relevant orders issued by Government of Kerala.
(2) The bonds shall be amortised at the same rate as prescribed in the Transfer Scheme notified by the Government of Kerala.
(3) The funds required for repayment of the bonds issued by KSEB Limited to service the terminal liabilities of its employees shall not be allowed for recovery through tariffs.

Analysis and decision of the Commission

76. KSEB Ltd has sought the actual expenses towards the payment of terminal liabilities in the petition. As per the details submitted vide letter dated 28-5-2018, KSEB Ltd has stated that terminal benefits paid to retired employees in 2015-16 for SBU-T is Rs.37.09 crore, out of the total Rs.1004.50 crore for KSEB Ltd.

77. It is noted that as per the Second Transfer Scheme, KSEB Ltd has to establish a Master Trust for entrusting the responsibility of paying the terminal benefits. In the petition KSEB Ltd has stated as follows:

"Even though the Trust was registered on 12.02.2015, KSEB Ltd could not issue Bonds to the Master Trust and make it fully functional during the year 2015-16 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, KSEB Ltd 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 KSEB Ltd. In view of the above submission' Hon Commission may kindly true up terminal benefits actually disbursed during the year under employee cost."

78. Hence, though the Master Trust was created on 12-2-2015, it could not be fully operationalised due to non- receipt of approval from the Income Tax Department. The scheme was made fully operational from 1-4-2017. KSEB Ltd petitioned that since the delay in operanalisation of the Master Trust was beyond the control of KSEB Ltd, the terminal benefits should be fully allowed under the employee cost.

79. The Commission has examined the matter. The amount booked under terminal liabilities is Rs.1004.69 crore for KSEB Ltd. It is a fact that the Master Trust was not operationalised due to the factors beyond the control of KSEB Ltd. Hence, funding of terminal benefits out of Master Trust was not possible as per the Regulations.

80. The Government has issued the second transfer scheme order vide G.O.(P) No.46/2013/PD dated 31-10-2013 and subsequently amended the same vide G.O.(P) No.3/2015/PD dated 28-1-2015. In the said Order, clause 6 provides for the transfer of personnel by the State and sub-clause 8 provides for the arrangement for payment of pension. The relevant portions of the scheme are quoted below:

Sub clause 8 of clause 6:

"(8) The State Government shall make appropriate arrangements in respect of funding the terminal benefits to the extent they are unfunded on the date of the transfer of the personnel from the erstwhile Board or

KSEB as mentioned in sub clause (9) of the clause 6 of this scheme. As per actuarial valuation carried out by registered value, the net present value of unfunded liability is approximately Rs.12419 crore (Rupees twelve thousand four hundred and nineteen crores) as on the date of re-vesting ie., 31-10-2013. ***Till such time arrangements are made the Transferee and the State Government shall be jointly and severally responsible to duly make such payments to the existing pensioners as well as the personnel who retire after the date of transfer but before the arrangements are put in place****. ...."*
[emphasis added]

81. As per the APTEL Order in Appeal Nos. 1 and 19 of 2013, the terminal liabilities have to be provided for. The provisions of the G.O dated 28-1-2015 had specifically stated that the funding of terminal liabilities till the formation of the Master Trust was to be jointly and severally the responsibility of KSEB Ltd and the State Government. However, the amount of contribution from the State Government was not specifically mentioned.

82. The Commission in the ARR&ERC order for 2014-15 and also in the *suo motu* determination of Tariff for 2017-18, had allowed an amount of Rs.814.40 crore for funding the terminal liabilities. Hence, till the formation of the Master Trust, the Commission, in the intermediate period had considered and allowed Rs.814.40 crore per year towards meeting the terminal benefits. Therefore the Commission approves the total terminal liability of Rs.1004.50 crore as per KSEB Ltd petition and apportions Rs.814.40 crore to KSEB Ltd account for the year 2015-16 towards pension liabilities in line with the provisions of the G.O.(P) No.3/2015/PD dated 28-1-2015. KSEB Ltd shall make up the balance amount of Rs.190.09 crore from the State Government either adjustment of electricity duty retained or through subvention as per the direction of the Government. This shall comply with the G.O provisions and fulfill the obligation of the Government in funding terminal liabilities during the interim period till the Master Trust is formed.

83. Out of the total Rs.814.40 crore allowed for funding the terminal liabilities the share of SBU-T is to be determined. KSEB Ltd has sought Rs.37.09 crore towards SBU-T out of the total commitment of Rs.1004.50 crore. Considering

this, of the Rs.814.40 crore, terminal liabilities for SBU-T is allowed in the same proportion as sought by KSEB Ltd. as shown below:

Table 21

Terminal liabilities approved for SBU-T for 2015-16

	As per Petition (Rs. crore)	Approved (Rs. crore)
KSEB Ltd		
Terminal benefits as per petition	1004.5	1004.5
Contribution of Government		190.1
Contribution through Truing up		814.4
SBU-T		
Share of Terminal benefits for SBU-T	37.09	37.09
Contribution of Government		7.02
Contribution through Truing up		**30.07**
Total Terminal benefits	**37.09**	**37.09**

84. ***The Commission hereby approves Rs.37.09 crore as the total pension liability of SBU-T. Of this, Rs.30.07 crore shall be debited to SBU-T account and Rs.7.02 crore to be got reimbursed from State Government***.

Interest and financing charges

85. As per the petition, the KSEB Ltd sought Rs.49.63 crore towards interest and financing charges of the SBU-T. Interest charges includes interest on secured loans, interest on GPF, interest on security deposits, interest on overdrafts, and other interest charges.

86. Each of the items is dealt with as below:

Interest on long term loans and advances

87. The total interest charges for KSEB Ltd as a whole is Rs.909.14 crore and after capitalisation Rs.57.73 crore the net interest charges is Rs.851.41 crore. In the petition, KSEB Ltd has claimed only Rs.837.14 crore towards net Interest and Financing charges, taking into consideration only the actual interest disbursed for security deposits.

88. The total outstanding loan allocated to SBU-T as per the petition was Rs. 1011.12 crore out of the total Rs.3753.51 crore outstanding as on 31-3-2016. Out of the Rs.1011.12 crore, allocated to SBU-T, Rs.459.45 crore is towards secured long term loans and Rs.551.67 crore is towards unsecured term loans.

Objection of stakeholders

89. The Association had objected to the claims of KSEB Ltd citing the provision of the Regulations. The Association pointed out that interest on CWIP shall not be allowed and accordingly an amount of Rs.226.70 crore on account of interest for CWIP of Rs.2109 crore at a rate of Rs.10.5% should be disallowed from the interest on long term loans. Further, as per the provisions of clause 38, 57 and 71, of the Regulations, the Commission should carryout a prudence check on the capital cost for approval of interest charges.

Provisions in the Regulation

90. Regulations provide detailed procedure for the approval of interest and financing charges. Regulation 27 provides for the debt : equity ratio and the relevant portions are given below:

> *"27.Debt-equity ratio. – (1) For the purpose of determination of tariff, debt-equity ratio as on date of commercial operation in the case of a new generating station, transmission line and distribution line or substation commissioned or capacity expanded on or after the First day of April 2015, shall be 70:30 of the capital cost approved by the Commission:*
>
> *Provided that the debt-equity ratio shall be applied only to the balance of such approved capital cost after deducting the financial support provided through consumer contribution, deposit work, capital subsidy or grant, if any.*
>
> *(2)Where equity employed is more than thirty percent of the approved capital cost, the amount of equity for the purpose of tariff shall be limited to thirty percent and the balance amount shall be considered as normative loan and interest on the same may be allowed at the weighted average rate of interest of the actual loan portfolio.*
>
> *(3)Where actual equity employed is less than thirty percent of the approved capital cost, the actual equity shall be considered.*
>
> *(4)If any fixed asset is capitalised on account of capital expenditure incurred prior to the First day of April, 2015, debt-equity ratio allowed by the Commission for determination of tariff for the period ending the Thirty First day of March, 2015 shall be considered.*

... .”

Regulation 30 provides for interest and financing charges, which is given below:

> ***30.Interest and finance charges**. – (1) (a) The loans arrived at in the manner indicated in regulation 27 shall be considered as gross normative loan for calculation of interest on loan.*
>
> *(b)The interest and finance charges on capital works in progress shall be excluded from such consideration.*
>
> *(c)In the case of retirement or replacement of assets, the loan amount approved by the Commission shall be reduced to the extent of outstanding loan component of the original cost of the retired or replaced assets, based on documentary evidence.*
>
> *(2)The normative loan outstanding as on the First day of April, 2015, shall be worked out by deducting the amount of cumulative repayment as approved by the Commission up to the Thirty First day of March, 2015, from the normative loan.*
>
> *(3)Notwithstanding any moratorium period availed by the generating business/company or the transmission business/licensee or the distribution business/licensee, the repayment of loan shall be considered from the first financial year of commercial operation of the project and shall be equal to the depreciation allowed for that financial year.*
>
> *(4)The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each financial year applicable to the generating business/company or the transmission business/licensee or the distribution business/licensee or state load despatch centre:*
>
> *Provided that if there is no actual loan for a particular financial year but normative loan is still outstanding, the weighted average rate of interest on the last available loan shall be considered:*
>
> *Provided further that if the regulated business of the generating business/company or the transmission business/licensee or the distribution business/licensee or state load despatch centre does not have actual loan, then interest shall be allowed at the base rate.*
>
> *(5)The interest on loan shall be calculated on the normative average loan for the financial year by applying the weighted average rate of interest.*
>
> *(6)The generating business/company or the transmission business/licensee or the distribution business/licensee or the state load despatch centre, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and any benefit from such refinancing shall be shared in the ratio 1:1 among,-*

(i) the generating business/company and the persons sharing the capacity charge; or

(ii) transmission business/licensee and long-term intra-State open access customers including distribution business/licensee; or

(iii) distribution business/licensee and consumers.

(7)The changes to the terms and conditions of the loans during the financial year, if any, shall be effective from the date of coming into force of such changes.

(8)Interest shall be allowed on the amount held as security deposit in cash from users of the transmission system or distribution system and consumers at the bank rate as on the First day of April of the financial year in which the application is filed:

Provided that interest on security deposit actually paid to the users of the transmission system or distribution system and to the consumers during the financial year, shall be considered at the time of truing up for the financial year."

91. As per the provisions of the Regulations, while allowing interest on loans, interest charges for capital works in progress is not allowable. Further, the Regulation provides that funds received in the form of grants and contributions to be deducted of from the fund requirements. In the case of assets during construction, the same is to be treated as part of fixed assets only when the assets are put into use.

Analysis and decision of the Commission

92. As per the petition, the KSEB Ltd sought Rs.49.63 crore towards interest and financing charges apportioned for the SBU-T. The Commission has examined the claims of KSEB Ltd and the objections of the stakeholders in detail. Each of the components consisting the interest charges, are examined separately below:

Interest on long term loans

80. Concurrent reading of the provisions of Regulations 27 and 30 show that interest charges applicable to assets created upto 1-4-2015 and after 1-4-2015 (ie., assets addition during the year 2015-16) shall be provided. Regulation 30(1) (b) specifies that, interest charges for capital works in progress are not allowable. As per the proviso to Regulation 27(1) funds received in the form of grants and contributions are to be reduced from the fund requirements. Further, in the case of assets during construction, the same is to be treated as part of fixed assets

only when the assets are put into use. The Commission also sought details of sources of funding of opening level of CWIP vide letter dated 31-7-2018. KSEB Ltd furnished the details vide letters dated 3-8-2018 and 13-8-2018 on the closing level of CWIP as on 31-3-2016 and the details on the opening levels were not furnished. Accordingly, the Commission could not use the details furnished by KSEB Ltd regarding CWIP.

81. The Commission has examined in detail the claims towards interest charges apportioned to SBU-T and the objections of the stakeholders. The Commission notes that there is difference regarding interest and financing charges among the SBUs as per KSEB Ltd truing up petition and as per the annual accounts. KSEB Ltd has clarified that the reason for divergence in the figures is mostly on account of the assumptions used in the apportionment of SBU wise details.

82. Rate of interest for the loan is specified in Regulation 30(4). As per this, the rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio of the each financial year applicable to the Generating business, transmission business or distribution business as the case may be. Based on this, the weighted average of interest for the year 2015-16 is estimated as shown below:

Table

Details of weighted average rate of interest for 2015-16

		Rs. crore
1	Opening balance of loan as on 1-4-2015	3,699.35
2	Closing balance of loan 31-3-2016	3,753.51
3=(1+2)/2	Average loan	3726.43
4	Interest charges for 2015-16	403.33
5=(4/3)%	Average rate of interest	10.82%

83. The opening level of loans as per the accounts is Rs.3699.35 crore and closing balance is Rs.3753.51 crore. The interest charges for loans for the year 2015-16 as per the accounts is Rs.403.33 crore. Thus, the average rate of interest works out to be 10.82%.

84. The interest charges allowable for the year 2015-16 is to be worked out based on the provisions of Regulations. As per the Regulations, interest on working capital is allowed normatively and in the case of loans taken for fixed assets can be

assessed based on the net fixed assets available as on 1-4-2015. As per Regulation 30(2), the normative loan outstanding as on 1-4-2015 shall be worked out by deducting the amount of cumulative repayment, which represents the depreciation allowed, as approved by the Commission as on 31-3-2015 from the normative loan. As per the details furnished by KSEB Ltd, the GFA as on 1-4-2015 is as shown below:

GFA as on 1-4-2015 as per Accounts	Rs.26608.06 crore
Value of assets enhanced as part of Transfer Scheme	Rs.11988.99 crore
GFA less enhanced value as on 1-4-2015	**Rs.14619.07 crore**

85. As per the accounts the cumulative depreciation as on 1-4-2015 is Rs.6800.04 crore. It may be noted that the Commission has not approved the entire depreciation as per the accounts in the previous years mainly on account of the fact that KSEB Ltd has accounted the depreciation as per rates notified by Government of India, whereas the Commission has allowed depreciation as per the rates notified by CERC, as provided in the Electricity Act and as well as Tariff Policy. Accordingly, from 2006-07 onwards, the Commission has disallowed the depreciation on account of the difference between the rates. The total depreciation disallowed by the Commission from 2006-07 to 2013-14 is Rs.664.79 crore. Thus, the depreciation approved by the Commission is Rs.6135.25 crore (Rs.6800.04-Rs.664.79 crore). Based on this, the Net Fixed Assets as on 1-4-2015 is Rs.8483.82 crore (Rs.14619.07 crore – Rs.6135.25 crore).

86. In order to arrive at the interest on loans, the funding pattern of Net Fixed Asset is to be arrived at. The entire Net Fixed Assets of Rs.8483.82 crore is funded out of equity, grants and contribution and loans. As per Regulation 35(b), the equity of Government of Kerala as per the transfer scheme published under Section 131 of the Act shall be considered for computation of return on equity. Thus, the amount of equity is Rs.3499 as per the books of accounts of KSEB Ltd is to be considered as source of funding for fixed assets.

87. The balance value of net fixed assets after accounting for equity is to be treated as funded through contribution and grants as well as loans.

88. As per Regulation 35(a), the reduction of contribution from consumers, grants and such other subvention for creation of assets made as part of transfer scheme shall not reckoned while computing returns. As per the letter dated 28-5-2018, KSEB Ltd has furnished that the grants and contribution to the tune of Rs.4169.87 crore was reduced by Government of Kerala as part of transfer scheme. Further, as per the details furnished by KSEB Ltd vide letter dated 28-5-2018, the grants and contribution added from 1-11-2013 to 31-3-2015 amounting to Rs.500.13 crore (Rs.172.61 crore + 327.52 crore). Thus, the total grants and contribution as on 1-4-2015 is Rs.4670 crore as in the table below:

Table 22
Details of consumer contributions and grants

	Rs. crore
Grants & contribution as on 31-10-2013 as per the clarification dated 28-5-2018	4,169.87
Grants and contribution added from 01/11/2013 to 31/03/2014	172.61
Grants and contribution added in 2014-15	327.52
Total grants and contribution as on 1-4-2015	4670.00

89. As per the accounts, the depreciation booked by KSEB Ltd includes the depreciation on the assets created out of contribution and grants. Hence, in order to estimate the net value of grants and contribution, the depreciation booked over the years is to be deducted. As shown above, the total depreciation approved by the Commission is Rs.6135.25 crore, ie., 42% of the value of GFA. The same percentage can be applied for estimating the depreciation booked on the assets created out of contribution and grants. Thus the proportionate depreciation on the assets created out of contribution and grants is Rs.1961.40 crore (ie., 42% of Rs.4670 crore). Thus, the net value of assets created out of contributions and grants is Rs.2708.60 crore (Rs..4670 crore – Rs.1961.40 crore). Accordingly, out of the total Net Fixed Assets of Rs.8483.82 crore, the asset created out of contribution is Rs.2708.60 crore.

90. Thus, the balance value of Net Fixed Assets, after accounting for equity, contributions and grant is treated as funded through loans. Based on this, the normative loan outstanding as on 1-4-2015, on the NFA of Rs.8483.82 crore is Rs.2276.17 crore as shown below:

		Rs. crore
1	Net Fixed Assets as on 1-4-2015	8483.82
2	Equity as per accounts	3,499.05
3	Grants and Contribution (after depreciation)	2,708.60
4=(1-2+3)	Normative Loan as on 1-4-2015	2,276.17

91. The depreciation for the year 2015-16 is to be treated as the repayment. The depreciation for the year is Rs.334.87 crore. The balance loan after repayment will be Rs.1941.13 crore. The average interest charges for the normative loan for the year at the weighted average rate of interest of 10.82% is Rs.228.24 crore (Rs.2276.17 crore+1941.13 crore)/2 X 10.82%). The interest charges arrived at is apportioned based on the share of fixed assets of SBUs as shown below:

Table 23
Details of consumer contributions and grants

		SBU-G Rs. crore	SBU-T Rs. crore	SBU-D Rs. crore	KSEBLtd Rs. crore
1	GFA as on 1-4-2015	16,395.04	4,097.22	6,115.79	26,608.05
2	Less Revalued Assets	11,988.98			11,988.98
3=1-2	GFA less revalued assets as on 1-4-2015	4,406.06	4,097.22	6,115.79	14,619.07
4	% share of SBUs	30%	28%	42%	100%
5	Interest charges based on the share of GFA of SBUs.	68.47	63.91	95.86	228.24

92. As shown above, interest charges for existing normative loan for KSEB Ltd is Rs.228.24 crore and the same is apportioned based on the SBU wise GFA is Rs.63.91 crore for SBU-T.

Interest charges for the addition of assets for 2015-16

93. Interest charges for asset added during the year are also to be considered on a normative basis. Interest charges for the addition to assets is to be regulated as per Regulation 27(1) and Regulation 30. As per the details furnished by KSEB Ltd, the total asset addition during 2015-16 is Rs.738.44 crore for KSEB Ltd as a whole and that of SBU-T is Rs.212.24 crore crore.

94. As per Regulation 27(1), for determination of tariff, debt: equity as on the date of commercial operation on or after first day of April 2015 shall be 70:30. As per proviso to Regulation 27(1), debit equity ratio shall be applied only to the balance of the capital cost after deducting the financial support provided through consumer contribution, deposit work, capital subsidy and grant if any. As per the details furnished by KSEB Ltd in the the letter dated 28-5-2018, the total contribution and grants received during 2015-16 is Rs.358.35 crore and that for SBU-T is Rs.12.02 crore

95. Regulation 29 and Regulation 27(3) are also applicable while estimating the normative interest on loan. As per Regulation 29, Return on equity is to be allowed on the paidup equity capital determined as per Regulation 27. Regulation 27(3) provides that in case actual equity is less than 30% of the approved capital cost, the actual equity is to be considered. As per the records available, there is no increase in paid up equity of KSEB Ltd. Thus, it can be concluded the actual equity contribution for the assets added during the year 2015-16 is nil. Hence the source of funding for addition to capital assets is assumed as from loan only.

96. Thus, the net loan for addition of assets which is interest is to be provided for the year is Rs.380.08 crore and the interest charges at the average rate of interest of 10.82% is Rs.20.57 crore (380.08/2 * 10.82%) as shown below:

Table 24
Interest charges for addition of Assets

	KSEB Ltd (Rs. crore)
Asset Addition 2015-16	738.43
Less Contribution & Grants	358.35
Balance value of assets for which interest is to be provided	380.08
Average Rate of interest	10.82%
Interest charges for addition of assets	**20.57**

97. The addition to assets for the year is Rs.738.43 crore and that of SBU-T is Rs.212.24 crore (28.74%). Hence the interest on loans for addition of the assets for SBU-T is 28.74% of Rs.20.57 crore ie., Rs.5.91 crore.

98. The total interest for loans for creation of assets for the year 2015-16 as per Regulation is shown below:

Table 25
Interest on long term loans for SBU-T for truing up for 2015-16

	SBU-T (Rs. crore)
Interest on existing loans	63.91
Interest on addition to assets	5.91
Total interest	69.82

99. **Thus*, the interest charges for long term loans for SBU-T is Rs.69.82 crore***

Overdrafts

100. In addition to long term and short term loans, KSEB Ltd in their petition stated that they had availed overdraft from banks to make up the shortages in cash flow in 2015-16 at an average level of Rs. 2200 crore during the year and an interest of Rs. 229.43 crore was paid on overdraft. According to KSEB Ltd, the borrowing had to be resorted to in order to make good the financial difficulties caused by unrecovered revenue gap of earlier years.

101. However, KSEB Ltd did not a provide SBU wise details of the overdrafts. According to KSEB Ltd overdrafts are availed for meeting the revenue deficits. Hence, there is no interest charges assigned on this accounts.

Interest on working capital

102. KSEB Ltd has not claimed any interest on working capital. However, as part of the clarifications dated 28-5-2018, KSEB Ltd has furnished the SBU wise estimate of interest on normative working capital. As per the provisions of the Regulations, interest on working capital is allowed on a normative basis and separately for each business. Hence, the same is dealt with separately as shown below.

Provisions in the Regulations

103. Provisions in the Regulation regarding estimation of working capital are as shown below:

33 (1) (d) In the case of transmission business/licensee the working capital shall comprise of,-

(i)operation and maintenance expenses for one month; plus

(ii)cost of maintenance spares at one per cent of the historical cost; plus

(iii)receivables equivalent to transmission charges for one month calculated at target availability:

Provided that the amount, if any, held as security deposits except the security deposits held in the form of bank guarantee from users of the transmission system shall be reduced while computing the working capital requirement.

Objection of stakeholders

104. Regarding interest on overdraft from the Banks, the Association pointed out that the claim of Rs.229.34 crore on interest on overdraft is not allowable as KSEB Ltd is in excess of the current liabilities over non cash assets, which shows that KSEB Ltd holds excess cash (due not paid) which is more than sufficient to cover the working capital requirements. The Association also pointed out the observations of the Commission in the order dated 20-7-2017 on the truing up of accounts of KSEB Ltd for the year 2013-14. The observations of the Commission while disallowing interest on working capital as given below:

> *"93. Hence, Commission is at a loss as to how to substantiate the interest on working capital as claimed by the KSEB Ltd. It is true that the books of accounts contain these borrowings. However KSEB has not been able to effectively prove as to why so much working capital loan has been availed. As mentioned elsewhere the concern of the Commission is that the commission has approved and provided the interest on short terms loans and long terms loans and also sufficient provisions has been built in to finance the approved revenue gap. The licensee has failed to give a detailed reasoning for such high levels of borrowings and answer the concerns raised by the commission herein, in a conclusive manner based on prudent reasoning. Hence Commission is not in a position to approve interest more than that as approved below, for the year 2013-14."*

Based on the above, the Association requested to disallow the claim on interest on working capital.

Analysis and decision of the Commission

105. As mentioned above, KSEB Ltd in the letter dated 28-5-2018 has furnished the following details on the estimation of interest on working capital as per the

provisions of the Regulations. The interest on working capital for SBU-T worked out by KSEB Ltd is worked as follows:

Table 26
Interest on working capital for SBU-T proposed by KSEB Ltd

Sl. No.	Particulars	Normative
1	O&M expenses (as per norms)	29.48
2	Maintenance Spares (as per norms)	40.97
3	Receivables calculated on target availability (as per norms)	62.64
4	Less :Amount, if any, held as security deposits except security deposits held in the form of Bank Guarantees from Users of the transmission system	0.00
5	Total Working Capital	133.09
6	Interest Rate (as per norms)	0.12
7	Interest on Working Capital	**15.97**

106. KSEB Ltd has claimed Rs.15.97 crore as interest on working capital for the year. Since the parameters used for the calculation is not at the approved level, the same is to be revised. Accordingly, the working capital is estimated as shown below:

O&M expenses for SBU-T	-	Rs.341.48 crore
Historical cost of assets	-	Rs.4097.22 crore
Base rate	-	10%
Interest rate for working capital	-	12%

107. Based on the above, the interest on working capital is estimated as follows:

Table 27
Estimation of interest on working capital for SBU-T

	SBU-T (Rs. crore)
O&M expenses for one month	28.46
Cost of maintenance of spares 1% of historical cost	40.97
Total	**69.43**
Less Security deposits	0.00
Total Normative Working capital Requirement	**69.43**
Base rate as on 1-4-2015	10%
Interest rate on working capital	12%
Interest on working capital	**8.33**

108. The interest on working capital for SBU-T as per the provisions of the Regulations is Rs.8.33 crore, which is approved for the year 2015-16

Interest on security deposits

109. In the case of SBU-T, since the SBU does not hold any security deposit no amount is assigned on this account.

Interest charges for GPF

110. As per the audited accounts, the actual interest paid on GPF was Rs.106.25 crore Interest allowed during the year was at a rate of 8.70%. The details of interest on GPF furnished as per the letter dated 28-5-2018 are as shown below:

Table 28
Details of interest on Provident Fund for SBU-T

Particulars	**SBU-T**
	(Rs. crore)
Opening balance as on 01/04/2015	**141.29**
Add : Addition	
1) Subscription/Contribution	32.80
2) Repayment of Temporary Advance	3.68
2) Interest	*11.37*
Sub Total	**47.85**
Less : Withdrawal	
1) Temporary Advance	4.01
2) NR withdrawal/Closure	28.98
Sub Total	**32.99**
Closing Balance as on 31/03/2016	156.15

111. As shown above, for SBU-T the interest charges for GPF is Rs.11.37 crore.

Objections of the Stakeholders

112. Regarding interest on GPF, the Association requested the Commission to allow interest once the GPF balances and interest is reconciled as pointed out by the statutory auditors. Regarding interest on Master Trust, the Association stated that KSEB Ltd has not issued the bonds yet and the claim of terminal liabilities is to be limited to allowing Rs.814.40 crore as interest on Master Trust and the claim of terminal liabilities of Rs.1004 crore is to be disallowed.

Analysis and decision of the Commission

113. After considering the details furnished by KSEB Ltd, the Commission approves the interest charges of Rs.11.37 crore on Provident Fund of SBU-T for the year 2015-16.

Other Interest Charges

114. Other interest charges is inclusive of guarantee commission and bank charges. The actual expenses were Rs.0.46 crore only. Predominant portion of other charges represent guarantee charges payable to Government amounting to Rs.0.28 crore. Further, Rs.0.16 crore represents interest paid on gratuity consequent to the decision to implement the Payment of Gratuity Act in KSEB. According to KSEB Ltd interest was paid as per section 7 of the Gratuity Act, a statutory claim, which automatically becomes applicable once the licensee decided to implement the said Act in KSEB. KSEB Ltd further stated that since the differential gratuity as per Gratuity Act over DCRG as per Part III KSR was approved in line with Hon APTEL judgment dated 10.11.2014, the interest charges may also be allowed.

115. Since there is no amount assigned to SBU-T under other interest charges, the same is not considered.

Summary of Interest and financing charges

116. Summary of the total interest charges allowable for the SBU-T is for the year 2015-16 is as shown below:

Table: 29
Interest charges allowable for SBU-T

Item	SBU-T (Rs. crore)
Interest on long term loan	69.82
Interest on working capital	8.33
Interest on GPF	11.37
Total	**89.52**

117. Thus the total interest and financing charges approved for the year 2015-16 for SBU-T is Rs.89.52 crore against Rs.49.63 crore booked as per the accounts.

Depreciation

118. KSEB Ltd in the truing up petition has claimed total depreciation of Rs.491.22 crore for the year 2015-16, of which the share of SBU-T was Rs.133.04 crore. It is mentioned in the petition that KSEB Ltd has started accounting for depreciation as per CERC norms from 01.11.2013 and the earlier practice of charging depreciation as per the notification issued by Ministry of Power in accordance with the provisions of the Electricity (Supply) Act 1948 had been dispensed with. It was also stated that the accounting policy with regard to depreciation is narrated in Note No. 38 Statement of Accounting policies, in the Annual statement of Account. The same is quoted below:

a. Depreciation is calculated on straight line method upto 90% of the original cost of assets at the rates notified by Central Electricity Regulatory Commission

b. Asset are depreciated to the extent of 90% of the cost of the asset and 10% is retained as residual value

c. Remaining depreciable value as on 31st March of the year closing after a period 12 years from the date of commercial operation shall be spread over the balance useful life of the asset.

d. Clawback of depreciation has been provided in the accounts on the assets created out of the contribution received from consumers as on 31st March of last year.

119. The depreciation accounted for is inclusive of assets created out of consumer contribution and grants. KSEB Ltd has stated that a sum of Rs.26.41 crore for KSEB Ltd is attributable to depreciation on assets created out of consumer contribution. This amount has been written back as income and credited to miscellaneous receipts under “other income”.

120. The depreciation claimed for SBU-T as per the petition is as shown below:

Table 30

Depreciation claimed for SBU-T

S.No.	Assets Group	GFA At the beginning of the year (Rs. crore)	Depreciation during the year (Rs. crore)
1	Land & land rights	208.91	0.00
2	Other Civil works	332.53	9.98
3	EHV	0.00	0.00
a)	Transmission lines	917.59	32.71
b)	Sub-station equipments	710.84	27.78
i)	Transformers	710.22	27.54
ii)	Switchgeares, Control gear & Protection	42.50	1.00
iii)	Batteries	19.27	0.29
iv)	Others	114.69	3.32
4	HV & LT	0.00	0.00
a)	Transmission lines	605.62	20.37
b)	Sub-station equipments	0.00	0.00
i)	Transformers	49.40	0.99
ii)	Switch geares, Control gear & Protection	0.00	0.00
iii)	Batteries	0.00	0.00
iv)	Others	0.00	0.00
5	Communication equipment	50.85	1.16
6	Meters	12.17	0.05
7	Vehicles	5.63	0.02
8	Furniture & fixtures	4.60	0.09
9	Office Equipments	2.47	0.04
10	Assets of Partnership projects etc.	0.00	0.00
11	Capital spares of	0.00	0.00
a)	EHV transmission	0.00	0.00
b)	HV & LT transmission	0.00	0.00
12	Assets taken over & pending final valuation	0.00	0.00
13	IT equipments	6.36	0.18
	Buildings	293.57	7.33
14	Any other items (Hydraulic Works)	10.00	0.20
15	Gross Asset (Total (1) to (14))	4097.22	133.04

Objections of the stakeholders

121. The Association pointed out that in the case of depreciation, the amount should be calculated as per the rates given in the Regulation. The Association stated that the rate of depreciation claimed as per the account is higher than as per the Regulation. Hence the Association re-estimated the depreciation and argued that Rs.326.37 crore only need to be allowed as depreciation for KSEB Ltd as a whole.

Provisions in the Regulations

122. Regulation 28 provides for determination of depreciation for the purpose of tariff determination. The relevant provisions are reproduced below:

28.Depreciation. – (1) The value base for the purpose of depreciation shall be the original capital cost of the asset approved by the Commission:

Provided that no depreciation shall be allowed on revaluation reserve created on account of revaluation of assets.

(2)The generation business/company or transmission business/licensee or distribution business/licensee shall be permitted to recover depreciation on the value of fixed assets used in their respective business, computed in the following manner:-

(a)depreciation shall be computed annually based on the straight line method at the rates specified in the Annexure-I to these Regulations for the first twelve financial years from the date of commercial operation;

(b)the remaining depreciable value as on the Thirty First day of March of the financial year ending after a period of twelve financial years from the date of commercial operation shall be spread over the balance useful life of the assets as specified in Annexure- I;

(c)the generating business/company or transmission business / licensee or distribution business/licensee, shall submit all such details and documentary evidence, as may be required under these Regulations and as stipulated by the Commission from time to time, to substantiate the above claims;

(d)the salvage value of the asset shall be ten per cent of the allowable capital cost approved by the Commission and depreciation shall be a maximum of ninety per cent of the approved capital cost of the asset.

(3)The generating business/company or transmission business/licensee or distribution business/licensee shall be allowed to claim depreciation to the extent of financial contribution in the form of loan and equity, including the loan and equity contribution, provided by them:

Provided that depreciation shall not be allowed on assets funded through consumer contribution, deposit works, capital subsidies and grants.

(4)In the case of existing assets, the balance depreciable value as on the First day of April, 2015, shall be worked out by deducting the cumulative depreciation as approved by the Commission up to the Thirty First day of March, 2015, from the gross depreciable value of the assets.

Analysis and decision of the Commission

123. As quoted above, the depreciation is to be calculated at the rates provided in the Regulations. The rate of depreciation in the Regulations is the same as the depreciation rates notified by CERC. The depreciation for an asset for the first 12 years is to be at the rates notified and the balance value if any shall be spread over the useful life of the assets. Further, depreciation shall not be applicable to the assets created out of consumer contribution and grants.

124. Regulation 35 provides the principles to be adopted for treating the transfer scheme under Section 131 of the Act.

"35. Principles for adoption of Transfer Scheme under Section 131 of the Act.- The Commission may, for the purpose of approval of aggregate revenue requirements and determination of tariff, adopt the changes in the balance sheet, due to the re-organisation of the erstwhile Kerala State Electricity Board as per the provisions of the Transfer Scheme published by the Kerala State Government under Section 131 of the Act, subject to the following principles,-

(a) Increase in the value of assets consequent to the revaluation of assets shall not qualify for computation of depreciation or of return on net fixed assets;

(b) The equity of Government of Kerala as per the Transfer Scheme published under Section 131 of the Act will be considered for computation of return on equity.

(c) The reduction of the contribution from consumers, grants and such other subventions for creation of assets, made as a part of Transfer Scheme, shall not be reckoned while computing depreciation or return on net fixed assets";

125. Regulation 35 (a) mandates that any increase in the value of assets consequent to its revaluation shall not qualify for computation of depreciation or for return on net fixed assets. Similarly depreciation shall also not be allowable for the assets created out of consumer contribution and grants. Further, the reduction in contribution from consumer contribution and grants made as part of the transfer scheme shall not be considered for computing depreciation.

126. KSEB Ltd in their accounting policy has mentioned that depreciation is calculated on straight line method upto 90% of the original cost of assets at the rates notified by CERC and the balance 10% is retained as residual value. Write back of the depreciation has been made in the accounts on the assets created out of the contribution received from consumers as on 31st March of last year.

127. *The Commission has noted that several qualification has been made by the statutory auditors on the fixed assets and on the depreciation accounting of KSEB Ltd. The Commission directs that KSEB Ltd has to address these issues on an urgent basis and to clear the auditors comments in a time bound manner.*

128. The Commission has sought the details of contribution and grants in the books of erstwhile KSEB as on the date of transfer, which were removed while effecting the transfer scheme. The KSEB Ltd has furnished the details vide letter dated 28-5-2015. In the said letter, KSEB Ltd stated that the consumer contribution and grants till 31.10.2013 as per the books of KSEB had been Rs. 4169.87 crore. However, that this amount was not re-vested to KSEB Ltd as per the Statutory Transfer scheme by the Government of Kerala. This amount is entirely attributable to SBU-D.

129. Further, addition to contribution and grants after the transfer scheme (from 1-1-2013) furnished by KSEB Ltd is as shown below:

Table 31

Addition to Consumer contribution and grants received till 2015-16

SL NO	PERIOD	Opening balance (Rs. crore)	Additions during the year (Rs. crore)	Closing Balance (Rs. crore)
B	TRANSMISSION :			
1	From 01/11/2013 to 31/03/2014	0.00	0.56	0.56
2	2014-15	0.56	3.34	3.90
3	2015-16	3.90	12.02	15.92

130. The addition of consumer contribution and grants from 1-11-2013 till 31-2-2016 is Rs.15.92 crore in the case of SBU-T and as on 1-4-2015 is Rs.3.90 crore. As per the provisions of the Regulations, depreciation is not allowable for the assets created out of contribution and grants As per the petition, the average rate of depreciation as per the books for the year 2015-16 is as shown below:

Table 32
Depreciation claimed for the year 2015-16

	SBU-T Rs. crore
Total Depreciation claimed	133.05
Consumer contribution added from 1-11-2013 to 31-3-2015	3.90
Less Depreciation applicable assets created from grants (Rs.3.90 crore x 5.28%)	0.21
Depreciation allowable excluding assets created out of contribution	132.84

131. Thus, the depreciation at the rate of 5.28% is used to write back the depreciation for the assets created out of consumer contribution and grants. The total contribution and grants added to SBU-T is Rs.3.90 crore. The depreciation deducted on this assets is Rs.0.21 crore. Thus the net depreciation allowed for SBU-T is Rs.132.84 crore :

Table 33
Depreciation allowable for 2015-16

	Depreciation as per petition	Depreciation on assets created out of contribution and grants	Net Depreciation allowable
	Rs. crore	Rs. crore	Rs. crore
SBU-T	133.05	0.21	132.84

Other expenses:

132. Under SBU-T, other expenses booked is Rs.-5.76 crore. Other expenses included other debits, prior period expenses and income. The Other debits include Material cost Variance, R&D Expenses, Bad Debts and Misc Losses Written-off. The material cost variance represents the difference between the actual rate at which material was procured and the standard rate at which material was issued. Bad and doubtful debts written off/ provided for, represent the withdrawal of

credits to revenue in earlier years. The miscellaneous losses and write offs represent the compensation paid to staff and outsiders for injuries and death. The Other debits as per accounts of KSEB Ltd as a whole was Rs.88.98 crore, inclusive of Rs.13.06 crore under bad and doubtful debts written off/provided and demand withdrawal from the consumers. Further, material cost variance of Rs.71.84 crore is also included.

133. In the case of SBU-T, KSEB Ltd in their petition, had included Rs.-1.69 crore towards material cost variance, Rs.0.02 crore towards research and development expenses, Rs.0.03 crore towards miscellaneous write offs and Rs.4.12 crore towards prior period income totaling Rs.- 5.76 crore as shown below:

Table 34

Other expenses for SBU-T for the year 2015-16

	SBU-T (Rs. crore)
Material Cost Variance	-1.69
Research and Development Expenses	0.02
Bad and Doubtful Debts Written off / Provided/demand withdrawal of consumers	
Miscellaneous Losses and Write Offs	0.03
Sundry Expenses	
Prior Period income/charges	-4.12
Total	-5.76

Analysis and decision of the Commission

134. The total other expenses claimed for SBU-T is Rs.-5.76 crore ie., the same is treated as income. The main item under the head is material cost variance which is Rs.-1.69 crore and prior period income of Rs.4.12 crore. Material cost variance is the difference between actual rate at which material is procured and the standard rate fixed for pricing the issue of material. On this account there was additional realization of Rs. 1.69 crore. Though material cost variance was booked for capital works and R&M works, KSEB Ltd stated that no portion of the cost variance was capitalised. ***Considering the above, other income of Rs.5.76 crore as per the accounts and the petition is approved for SBU-T for the purpose of truing up for the year 2015-16.***

Return on equity

135. KSEB Ltd in their petition claimed return on equity at the rate of 14% for the SBUs. As per the petition, the total equity mentioned for KSEB Ltd is Rs.3499 crore. The SBU wise apportionment of equity is as shown below:

Table 35
Return on equity sought by KSEB Ltd

	Audited Accounts	As per the Petition (Rs. crore)	
	(Rs. crore)	Amount of Equity	Return on equity
SBU-G	927.69	1,455	203.63
SBU-T	1015.96	1,554	217.59
SBU-D	1555.46	490	68.64
Total	3,499	3,499	489.86

136. Return on equity claimed for the SBU-T is Rs.217.59 crore for an equity amount of Rs.1554 crore. As shown above, there is a difference in the estimation of equity as per accounts and the truing up petition. KSEB Ltd in their letter dated 28-5-2018 clarified that the difference is on account of the fact that the figures adopted for truing up is same one followed by the Commission as per the order on *suo motu* determination of tariff dated 17-4-2017.

Objections of the stakeholders

137. According to the Association, return on equity shall be as per the equity base approved by APTEL in the Order dated 18-11-2015 in Appeal No.247 of 2014. Accordingly RoE of Rs.39.15 crore only to be given

Analysis and decision of the Commission

138. The Commission has examined the details furnished by KSEB Ltd and the objections of stakeholders. The determination of the equity and the rate of return allowed shall be as per the provisions of the Regulations. As per Regulation 27, normative debt equity ratio is 70:30 as shown below:

> ***28. Debt-equity ratio. –*** *(1) For the purpose of determination of tariff, debt-equity ratio as on date of commercial operation in the case of a new generating station, transmission line and distribution line or substation*

commissioned or capacity expanded on or after the First day of April 2015, shall be 70:30 of the capital cost approved by the Commission:

Provided that the debt-equity ratio shall be applied only to the balance of such approved capital cost after deducting the financial support provided through consumer contribution, deposit work, capital subsidy or grant, if any.

(5) Where equity employed is more than thirty percent of the approved capital cost, the amount of equity for the purpose of tariff shall be limited to thirty percent and the balance amount shall be considered as normative loan and interest on the same may be allowed at the weighted average rate of interest of the actual loan portfolio.

(6) Where actual equity employed is less than thirty percent of the approved capital cost, the actual equity shall be considered.

(7) If any fixed asset is capitalised on account of capital expenditure incurred prior to the First day of April, 2015, debt-equity ratio allowed by the Commission for determination of tariff for the period ending the Thirty First day of March, 2015 shall be considered.

139. Regulation 29 provides for return on equity. As per the said Regulation, RoE of 14% shall be allowed on the equity on the paid up equity capital as shown below:

29. Return on investment. – *(1) Return on equity shall be computed in rupee terms, on the paid up equity capital determined in accordance with the Regulation 27 and shall be allowed at the rate of fourteen percent for generating business/companies, transmission business/licensee, distribution business/licensee and state load despatch centre:*

Provided that, return on equity for generating business/company, transmission business/licensee, distribution business/licensee and state load despatch centre, shall be allowed on the amount of equity capital approved by the Commission for the assets put to use at the commencement of the financial year and on fifty percent of equity capital portion of the approved capital cost for the investment put to use during the financial year:

Provided further that at the time of truing up for the generating business/company, transmission business/licensee, distribution business/licensee and state load despatch centre, return on equity shall be allowed on pro-rata basis, taking into consideration the documentary evidence provided for the assets put to use during the financial year.

140. The Commission examined the details furnished by KSEB Ltd. It is seen that the Commission had adopted certain equity figures in the *suomotu* order due to lack of details from KSEB Ltd. However, since the actual apportionment of equity as per audited accounts has been made available by KSEB Ltd, the Commission has adopted the figures given in the audited accounts for consistency. Further, Regulation 35(b), requires that for the purpose of computation of return on equity, the equity of Government of Kerala as per the transfer scheme published under Section 131 is to be followed. The amount of equity notified as part of the Transfer Scheme is Rs.3499 for KSEB as a whole. Accordingly, the RoE allowable for the SBUs for the year 2015-16 is as shown below:

Table :36

Return on equity approved for the year 2015-16.

	Equity As per petition		Approved for Truing up	
	Equity (Rs. crore)	RoE @ 14% (Rs. crore)	Equity (Rs. crore)	RoE @ 14% (Rs. crore)
SBU-G	1,454.50	203.63	927.69	129.88
SBU-T	**1,554.20**	**217.59**	**1,015.96**	**142.23**
SBU-D	490.30	68.64	1,555.40	217.76
Total	**3,499.00**	**489.86**	**3,499.05**	**489.87**

141. As shown above, the the RoE approved for SBU-T for 2015-16 for the purpose of truing up is Rs.142.23 crore.

Transmission charges or Transfer Cost of SBU-T

142. Based on the above provisions, the various components of the the ARR of SBU-T are determined as shown below:

(a) *O&M expenses:*
O&M expenses approved for SBU-T is Rs.311.56 crore

(b) Terminal liabilities approved for SBU-T is Rs.30.07 crore

(c) *Interest and finance charges*
Interest and financing charges including interest on working capital for SBU-T is Rs.89.82 crore

(d) *Depreciation :*
The Approved level of depreciation for SBU-T is Rs.132.84 crore

(e) *Contribution to contingency reserves*

As per Regulation 61, contribution to contingency reserve can be allowed if the licensee is made an appropriation to the contingency reserve, a sum not more than 0.25% of the original cost of fixed assets shall be allowed annually, but upto limit of 5%, towards such appropriation in the calculation of revenue requirements. Since the licensee has not made any such appropriation, no allowance is given under this head.

(f) Return on equity:

The approved level of RoE for SBU-T is Rs.142.23 crore

(g) Other expenses approved is Rs.-5.76 crore

(h) Non-Tariff income

The approved level of non-tariff income for SBU-T is Rs.33.74 crore

143. Thus, the total annual revenue requirements approved for the year 2015-16 for SBU-T is as shown below:

Table 37

Summary of Truing up of SBU-T

	As per Petition (Rs. crore)	Approved Truing up (Rs. crore)
Revenue from transfer cost	751.63	666.74
Non-Tariff income	33.74	33.74
Total Income	**785.37**	**700.48**
Employee Costs	255.45	230.83
R&M expenses	47.91	65.25
A&G expenses	50.41	15.48
Total O&M expenses	**353.77**	**311.56**
Terminal liabilities	37.09	30.07
Interest and financing charges	49.63	89.52
Depreciation	133.05	132.84
RoE	217.59	142.23
Other expenses	-5.76	-5.76
Gross Expenses	**785.37**	**700.48**
Revenue gap	-	-

144. The total gross expenses as per the petition was Rs.785.37 crore and the net expenses is Rs.751.63 crore. ***As against this, the Commission approves a gross expenses of Rs.700.48 crore and net expenses of Rs.666.74 crore. Accordingly, the Transfer cost of SBU-T is Rs.666.74 crore. which is transferred to SBU-D as the cost of intra state transmission.***

145. The major items of deviation between the petition and the trued up values are on account of O&M charges which in the petition KSEB Ltd had claimed the actual payment of O&M charges including pension liabilities, whereas the O&M expense approved now is based on the provisions of the Regulations excluding terminal benefits and as per the direction of Hon. High Court. Terminal benefits are allowed separately. The Commission has also allowed the interest & finance charges and interest on working capital as per the provisions of the Regulations which differs from the claim of KSEB Ltd petition The Return on equity is also lower on account of the difference in the amounts apportioned among the SBUs in KSEB Ltd annual accounts vis-à-vis Commission's *suo motu* orders. The Commission has approved the RoE based on figures as per the annual accounts.

System availability

146. As per Regulation 58, SBU-T target availability for full recovery of annual transmission for AC system shall be 98.5% and recovery of annual transmission charges below the level of target availability shall be on a pro rata basis and no transmission charges shall be payable at zero availability. It has also been provided that the availability shall be calculated in accordance with the procedure specified in the Regulations and shall be certified by State Load Despatch Centre. There shall be incentive applicable if the actual availability is above the target availability Annexure-II (ii) of the Regulations provides for detailed methodology for calculating the availability of transmission system.

147. The Commission has sought the target availability of transmission system for the year 2015-16 as certified by SLDC as per the provisions of the Regulations. KSEB Ltd has furnished the following details for the availability of transmission system.

Table 38

Actual Availability of transmission reported by KSEB Ltd for 2015-16

Transmission elements	Target availability	Actual Availability
220kV System	98.5%	98.66%
110kV system	98.5%	98.51%
66kV system	98.5%	98.93%

148. It is seen that KSEB Ltd has not furnished the details of the availability of transmission system as per the requirements of the Regulations. Hence the Commission is not in a position to consider the incentive on higher availability as per the Regulations.

149. As detailed in the sections given above, the Commission treat the entire annual allowable revenue requirement of SBU-T as cost of SBU-D.

CHAPTER -4
ENERGY SALES AND T&D LOSS

Energy Sales

1. The energy sale within the State in the year 2015-16 was 19325.07 MU and the sale including interstate sale is 19378.56 MU. The sale within the state has increased by about 4.88% over the previous year.

Table 1
Energy sale for the year 2015-16

Category	2014-15 (MU)	2015-16 (MU)	% Change (MU)
LT Domestic	9367.26	9943.48	6.15
LT Commercial	2418.28	2735.36	13.11
LT Industrial	1096.93	1103.23	0.57
LT Agricultural	291.41	279.48	-4.09
LT Streetlight	346.43	366.62	5.83
HT I industrial	1842.32	1852.13	0.53
HT II Non Industrial	551.97	678.04	22.84
HT III Agricultural	6.87	6.82	-0.79
HT IV –Commercial	578.81	584.39	0.96
HT V –Domestic	8.17	9.56	16.99
EHT 66/110/220kV	1093.39	906.69	-17.08
EHT General	65.05	68.38	5.12
Railway Traction	205.31	212.83	3.66
Bulk Supply	554.06	578.08	4.34
Sub Total(HT)	4905.96	4896.91	-0.18
Total	18426.27	19325.07	4.88
Sale out side the State		53.48	
Total Sale		19378.56	

2. There is also sale of 53.48MU outside the State. ***After examining the details furnished by KSEB Ltd, the Commission approves the energy sale as per the accounts.***

T&D Loss

3. In the petition, KSEB Ltd has stated that the total requirement of energy at the KSEB Ltd periphery was 22637 MU. The sale outside the State by IPPs in the state was 40.44MU and the purchase of energy by open access consumers in the State

is 142 MU in the year. By considering all these, the T&D loss reported for the year is 14.37%. According to KSEB Ltd there is a loss reduction of 0.20% over the previous year. The estimation of loss reduction furnished by KSEB Ltd is given below:

Table 2

T&D loss as per the Petition

Sl No.	Particulars	Unit	As per Accounts
1	Energy sales within the State	(MU)	19325.07
2	Energy sales outside the State	(MU)	53.48
3	Energy sale outside the state by PBCL	(MU)	38.63
4	Open access purchase by consumers	(MU)	135.25
5	**Total Sales**	**(MU)**	**19552.43**
6	Net Generation and Power Purchase at KSEB periphery (excl. PGCIL losses)	(MU)	22637
7	Energy injected by PBCL for outside state energy purchased by Open Access consumers	(MU)	182.44
8	**Sub total Energy input**	**(MU)**	**22819.44**
9	T&D Losses	(MU)	3267.01
10	T&D loss percentage	(%)	14.37%
11	**Loss reduction target approved/ achieved**	**(%)**	**0.20%**

Objections of the Stakeholders

4. The Association stated that KSEB Ltd has not complied with the directions of the Commission on furnishing the results of studies on estimation of T&D loss and also not satisfactorily produced any materials on faulty meters in the system. The Commission has directed to limit the faulty meters to 2% of the total connections. According to the Association, in the absence of reliable supporting details on the T&D losses, the Commission should enforce a loss reduction target of 0.5% for the year. Thus the T&D loss should be 14.07% compared to the actuls of 14.37%

5. According to the Association, if the suggested loss target of 0.50% is enforced, the energy requirement will be reduced by 65.54 MU ie., for a loss level of 14.07%, energy requirement would be 22753.90 MU considering the sales of 19552MU.

Analysis and decision of the Commission

6. As per the details furnished by KSEB Ltd the total sale of electricity within the state was 19325.07 MU and including 53.48 MU of sale out side the State the total sale is 19378.56 MU. After examining the details furnished by KSEB Ltd, the Commission approves the energy sale as per the accounts.

7. There is no ARR&ERC order for 2015-16 and hence there is no T&D loss target fixed for the year. Though the Association stated that loss reduction should be at least 0.5%, the Commission is of the view that target is to be given upfront and specifying a target once the year is over is not fair. As per the petition, the loss reduction achieved by KSEB Ltd is 0.20% over the previous year. The loss reduction target and actual loss reduction achieved by KSEB Ltd in previous years are given below:

Table 3

Comparison of loss reduction approved and achieved

Year	Proposed in the ARR (%)	Approved by the Commission (%)	Actual achieved by KSEB (%)	Actual T&D loss (%)
2005-06	2.72	2.72	1.99	22.96
2006-07	1.76	2.50	1.50	21.47
2007-08	1.83	2.00	1.45	20.02
2008-09	1.63	1.63	1.19	18.83
2009-10	1.27	1.00	1.12	17.71
2010-11	0.92	0.92	1.62	16.09
2011-12	0.69	0.69	0.44	15.65
2012-13	0.25	0.50	0.35	15.30
2013-14	0.32	0.50	0.34	14.96
2014-15	0.25	0.50	0.39	14.57
2015-16			0.20	14.37

8. Thus as can be seen that in the previous years the Commission has given the target loss reduction from 3% to 0.5% and the KSEB Ltd could achieve much higher loss reduction ranging from 1.99% to 0.34% per year. Compared to the previous years, the loss reduction achieved in 2015-16 is much lower. The

Commission in the *suo motu* order has given loss reduction target of 0.25% for 2016-17 and 2017-18.

9. However, considering the fact that there was no target given, the Commission is of the view that actual loss level achieved by KSEB Ltd is to be approved for the year 2015-16. Accordingly, the T&D loss approved for 2015-16 is as shown below:

Table 4
T&D Loss allowable for 2015-16

Sl No.	Particulars	Unit	As per Accounts	Truing up
1	Energy sales within the State	(MU)	19325.07	19325.07
2	Energy sales outside the State	(MU)	53.48	53.48
3	Energy sale outside the state by PBCL	(MU)	38.63	38.63
4	Open access purchase by consumers	(MU)	135.25	135.25
5	**Total Sales**	**(MU)**	**19552.43**	**19552.43**
6	Net Generation and Power Purchase at KSEB periphery (excl. PGCIL losses)	(MU)	22637	22637
7	Energy injected by PBCL for outside state energy purchased by Open Access consumers	(MU)	182.44	182.44
8	**Sub total Energy input**	**(MU)**	**22819.44**	**21956.07**
9	T&D Losses	(MU)	3267.01	3175
10	T&D loss percentage	(%)	14.37%	14.37%
11	**Loss reduction target approved/ achieved**	**(%)**	**0.20%**	**0.20%**

10. Thus, as shown above, the T&D loss level approved for the year is 14.37%, which is same as actual. Accordingly, the energy requirement required for the sale of 19325 MU is 22637 MU.

CHAPTER -5
TRUING UP OF ACCOUNTS OF STRATEGIC BUSINESS UNIT DISTRIBUTION (SBU-D)

1. SBU-D handles the distribution of electricity to ultimate consumers. SBU-D caters to about 1.17 crore customers of different categories including Extra High Tension, High Tension and Low Tension in the State. The total revenue from sale of power for the year 2015-16 is Rs.10487.71 crore. In order to service the consumers, SBU-D manages 72460 distribution transformers and 59477 circuit kilometers of HT lines. The total energy requirement for the year for supplying consumers was 22637MU for a sale of 19378.56 MU including sale of 53.48MU outside the State.

Revenue from Operations :

2. The income from operations consists of revenue from following sources
    a. sale of power and
    b. other income.

Tariff income

3. The SBU-D, is the largest distribution licensee among all the 9 distribution licensees in the State. SBU-D is responsible 97.1% of the retail sale of electricity in the State. The total revenue for the sale of 19378.56MU as per the petition is Rs.10487.71 crore. Of this, revenue from sale within the State was Rs.10446.01 crore for a sale of 19325.07 MU. Balance 53.48 MU was the sale outside the State earning an amount of Rs. 41.70 crore.

Table 1
Revenue from Sale of Power for SBU-D

No	Category	Actual Energy sales (MU)	Actual Revenue (Rs. crore)	Average Tariff (Rs.kWh)
1	LT Domestic	9,943.48	3,744.10	3.77
2	LT Industrial	1,103.23	746.63	6.77
3	LT Agriculture	279.48	65.62	2.35
4	LT Commercial	2,735.36	2,448.50	8.95
5	LT Public Lighting	366.62	156.36	4.26
6	HT & EHT	4,106.02	2,816.89	6.86
7	Railway Traction	212.83	120.86	5.68
8	Bulk Supply	578.05	347.04	6.00
9	Inter state sale	53.48	41.70	7.80
10	**Total**	**19378.56**	**10487.71**	**5.41**

4. KSEB Ltd further pointed out that the revenue from sale of Power is the billed demand inclusive of the subsidy allowed by the Government for domestic consumers having monthly consumption up to 120 units and for LT Agricultural consumers. According to KSEB Ltd, the sales increased by 4.88% over 2014-15.

Objections from Stakeholders

5. In the written objections, the President, Upabokthru Samrakshna Samithi, Antikadd, Thrissur stated that the details furnished by KSEB Ltd is not proper. The income is understated and expenses are overstated and hence the same should not be approved. KSEB Ltd had not included the charges paid by the Government for free electricity for agriculture, other government departments, public sector undertaking , arrears from large industries etc., Hence the accounts of the KSEB Ltd should be examined by a separate agency

Analysis and decision of the Commission

6. The Commission has considered the claim of KSEB Ltd and the objection of the stakeholders. Though it was stated by the objectors that KSEB Ltd has understated the revenue, there is no supporting details furnished to corroborate the statement. Hence such claim cannot be considered.

7. As per the petition, the tariff revenue for the year was Rs.10487.71 crore for SBU-D. The licensee has given tariff category wise sales and revenue realization for the year 2015-16. The average revenue earned per unit of sale was Rs.5.41 and the highest average revenue was contributed by the LT Commercial consumers (Rs.8.95/unit).

8. Since the ultimate sale to the consumers is effected through SBU-D, the entire revenue from sale of power is realized by SBU-D.

9. ***Considering the details furnished by KSEB Ltd, the Commission approves the revenue from sale of power of Rs.10487.71 crore as furnished by KSEB Ltd for the year 2015-16.***

Non Tariff income

10. As per the petition, the non Tariff income of SBU-D is Rs.686.27 crore. The details of non-tariff income shown as per the petition is given below:

Table 2

Non Tariff Income of SBU-D

	Description	Amount (Rs. crore)
1	Interest on staff loans and advances	0.23
2	Income from statutory investments	0.20
3	Income from trading	1.80
4	Income from rent of land or buildings	9.85
5	Income from sale of scrap	15.69
6	Income from staff welfare activities	0.00
7	Rental from staff quarters	0.17
8	Excess found on physical verification	0.05
9	Interest on investments, fixed and call deposits and bank balances	9.62
10	Interest on advances to suppliers/contractors	0.21
11	Income from hire charges from contractors and others	0.01
12	Income due to right of way granted for laying fibre optic cables/co-axial cables on distribution system	36.55
13	Income from advertisements, etc.	0.00
14	Miscellaneous receipts	103.53
15	Commission for collection of electricity duty	0.00
16	Interest on delayed or deferred payment of bills	0.00
17	Rebate from Central Generating Stations	103.43
19	Recovery for theft and pilferage of energy	2.32
20	Meter/metering equipment/service line rentals	90.13
d)	Wheeling charges Recoveries	0.19
5	UCM	0.21
6	SC Fee, etc.	0.03
7	Other Items	41.62
8	TF/RF	16.06
9	Other Levies On Fee	260.16
10	LE/SC Minimum	2.09
11	Meter Box Charges	0.00
12	Processing Fee for Allocation of Power	3.39
13	STOA - Registration and Application fee	0.09
14	STOA - Open Access charges	5.26
15	Application fee registration fee for grid connectivity to solar panels	1.46
16	Energiation charges	1.93
	Total	**706.27**
	Less: IT refund and capital grant	20.00
	Non Tariff income for SBU D	**686.27**

11. The non-Tariff income of Rs.686.27 crore for SBU-D is arrived at after deducting Rs.20. crore on account of income tax refund and wrong booking of capital grant. KSEB Ltd has clarified that, the difference of Rs. 20 crore is on account of the accounting mistake committed in 2015-16. An amount of Rs.17 crore on account of income tax refund was inadvertently credited to miscellaneous receipts and Rs.3 crore received for installation of 6 digital seismic stations was also credited under this head instead of grants and contributions. KSEB Ltd furnished the details of the adjustment in their letter dated 28-5-2018.

12. In the letter dated 28-5-2018, KSEB Ltd has reported that during the year FY 2015-16 KSEB Ltd obtained an Income Tax refund of Rs.18,07,44,920/- against income tax remittance of Rs.17 crore. Instead of reversing Rs.17 crore against Advance Income tax account, the entire receipt of Rs.18.07 crore was credited to income account. The mistake has since been rectified in 2016-17 by debiting Rs.17 crore under prior period expenses.

13. Regarding installation of seismic stations, Government of Kerala sanctioned Rs. 3.90 crore for installation of 6 digital seismic stations in and around Mullapperiyar dam. Consequent to the installation of 6 digital seismic stations, Government released an amount of Rs.3.90 crore on 25.04.2015. KSEB Ltd stated that this amount was inadvertently booked under revenue instead of Contributions/grants. The mistake has since been rectified in 2016-17 by debiting prior period expenses. Considering this, KSEB Ltd stated that Rs.20 crore has to be deducted from the non-tariff income.

14. The main reason for increase in non-tariff income was on account of interest charged on KWA arrears of Rs.245 crore under miscellaneous charges from consumers. Government of Kerala, vide G.O.(Ms) No. 24/2015/PD dated 29.06.2015 ordered adjustment of Rs.500 crore against the Electricity duty payable by KSEB Ltd to the Government. for clearing a part of the arrears of electricity due from Kerala Water Authority. In compliance, KSEB Ltd apportioned the amount under various heads as furnished below:

Table 3
Details of Electricity Duty set off against KWA arrears

Item	Amount (Rs crore)
Electricity charges	218.04
Duty	8.82
Supply Surcharge	1.74
Meter rent	0.01
Excess consumption penalty	20.79
Fuel surcharge	4.65
Interest	245.95
Total	**500.00**

15. KSEB Ltd during the hearing had stated that Rs.25.76 crore was received as income from sale of LED bulbs whereas an amount of Rs. 12.89 crore was spent on account of expenditure in connection with the distribution of LED bulbs. The expenses were booked under A&G expenses. According to KSEB Ltd, since the income from sale of LED bulbs is fully recognized, the expense on this account may also be fully allowed under A&G expenses, or the net income alone be considered under miscellaneous charges.

16. Further, KSEB Ltd has also stated that Rs.26.41 crore was included under miscellaneous receipts on account of write back of depreciation, of assets created out of consumer contribution and grants. KSEB Ltd requested that non-tariff income may be approved after excluding these amounts.

Objections of stakeholders

17. There were no specific objections raised by consumers regarding non-tariff income.

Provisions in the Regulations

18. As per Regulation 84(1), the amount of non tariff income of SBU-D is to be deducted from aggregate revenue requirements. The Regulation is quoted below:

> *84. Non-tariff income.– (1) The amount of non-tariff income of the distribution business/licensee as approved by the Commission shall be deducted from the aggregate revenue requirement in determining the tariff of the distribution business/licensee.*

Regulation 84(2) provides the indicative list of items under non tariff income.

"(2) The indicative list of items to be considered as non-tariff Income are as under:-

(i) interest on staff loans and advances;
(ii) income from statutory investments;
(iii) income from trading;
(iv) income from rent of land or buildings;
(v) income from sale of scrap;
(vi) income from staff welfare activities;
(vii) rental from staff quarters;
(viii) excess found on physical verification;
(ix) interest on investments, fixed and call deposits and bank balances;
(x) interest on advances to suppliers/contractors;
(xi) income from hire charges from contractors and others;
(xii) income due to right of way granted for laying fibre optic cables/co-axial cables on distribution system;
(xiii) income from advertisements, etc.;
(xiv) miscellaneous receipts;
(xv) commission for collection of electricity duty;
(xvi) interest on delayed or deferred payment on bills;
(xvii) rebate from central generating stations;
(xviii) revenue from late payment surcharge;
(xix) recovery of theft and pilferage of energy; and
(xx) meter/metering equipment/service line rentals.

Analysis and decision of the Commission

19. The Commission has examined the details furnished by KSEB Ltd. The Commission notes that there was substantial reduction of Rs.53.69 crore in income from meter rental compared to previous year. This was the result of the Commission's decision to reduce the meter rent for single phase consumers from Rs.10 to Rs.6 and for three phase consumers from Rs.20 to Rs.15 effective from 1-10-2014. However, the reduction in revenue in 2015-16 is not commensurate to the reduction in the meter rent.

20. The Commission also notes that the interest from banks for the year is Rs.9.62 crore in comparison with Rs.62.18 crore in previous year ie., 2014-15. On the other hand the cash and bank shows an increase from Rs.214.60 crore as on 31-

3-2015 to Rs.241.63 crore as on 31-3-2016. KSEB Ltd has not furnished any reason for such drastic reduction in interest charges.

21. As per the details furnished, the total non-tariff income as per the accounts is Rs.706.27 crore and as per the petition the non-tariff income claimed is Rs.686.27 crore. The reduction is on account of the adjustments made in the accounts for income tax refund (Rs.17 crore) and Government grant (Rs. 3 crore) for installing seismic stations, which is effected in the next year accounts.

22. As mentioned by KSEB Ltd in the petition, the write back of depreciation on the assets created out of consumer contribution is included under the miscellaneous income as a contra entry on the depreciation booked for the assets. Since the Commission is not allowing the depreciation for the assets created out of grants and contribution, the income booked is also not considered for consistency.

23. KSEB Ltd has also stated that an amount of Rs. 25.76 crore was booked under the non-tariff income for sale of LED bulbs, and the expenses of Rs.12.89 crore incurred for the distribution was included under A&G expenses. Since the O&M expenses are allowed as per the norms, the one time expense towards distribution of LED bulbs will not be covered under the head. Hence, the Commission is of the view that adjustment is to be made on the non-tariff income to include the net income of Rs.12.87 crore received from sale of LED bulbs.

24. As mentioned above, the Commission considered the adjustments towards booking of refund, write back of depreciation and expenses towards LED bulbs distribution in the non-tariff income.

Table 4
Non Tariff income approve for 2015-16

	As per petition (Rs. crore)	Approved in the truing up (Rs.crore)
Total Non Tariff Income as per accounts	706.27	706.27
Less Income Tax refund wrongly booked	20.00	20.00
Less written back of Depreciation		26.41
Less Expenses towards LED distribution		12.89
Net Non-Tariff income	**686.27**	**646.97**

25. ***Accordingly, Rs.646.97 crore is approved as non-Tariff income for the year 2015-16 for the purpose of truing up.***

Total Income

Total income of SBU-D is as shown below:

Table 5

Total income of SBU-D

	SBU-D	
Particulars	Petition (Rs.crore)	Approved (Rs.crore)
Revenue from sale of power	10,487.71	10,487.71
Non-Tariff income	686.27	646.97
Total Revenue	**11,173.98**	**11,134.68**

26. KSEB Ltd in their petition has claimed Rs.10487.71 crore as revenue from sale of power and Rs.686.27 crore as miscellaneous income for SBU-D. Against this submission of KSEB Ltd, ***the Commission approves the total income of SBU-D as Rs.11,134 crore consisting of Rs.10487.71 crore as revenue from sale of power and Rs.646.97 crore as miscellaneous income***

Expenses of SBU-D

27. As per the details furnished by KSEB Ltd in the petition, the Aggregate Revenue Requirements for SBU-D inclusive of Return on equity are as shown below:

Table 6

Expenses of SBU-D as per Petition

No	Particulars	Amount (Rs. crore)
1	Cost of Generation (SBU-G)	633.37
2	Cost of Intra-State Transmission (SBU-T)	751.62
3	Cost of Power Purchase	5912.38
4	Cost of Inter-State Transmission	424.44
5	O&M Expenses	3116.80
6	Interest & Financial Charges	741.19
7	Depreciation	236.13
8	Return on equity (14%)	68.64
9	Other Expenses	98.30
10	**Total ARR**	**11982.87**

28. The Commission has examined each item of expenses separately and is as follows:

Cost of Generation (Transfer cost of SBU-G)

29. Cost of generation claimed by KSBE Ltd is the transfer cost passed on to SBU-G. As per the petition, the net transfer cost of SBU-G (cost of internal generation -Hydel and LSHS Stations) is Rs.633.37 crore. ***Against the claim the Commission has in Chapter 2 of this Order approved the Transfer cost of SBU-G as Rs.563.99 crore.***

Cost of Intra State Transmission (Transfer Cost of SBU-T)

30. Cost of intra state transmission is the transfer cost of SBU-T to SBU-D. As per the petition, the net transfer cost of SBU-T or cost of intra state transmission is Rs.751.63 crore. **Against this claim, the Commission in Chapter 3 has approved the Transfer cost of SBU-T as Rs.666.74 crore.**

Cost of power purchase

31. The cost of power purchase (other than own generation) including intra-state transmission charges is Rs.6336.82 crore. Of this, the power purchase cost is Rs.5912.38 crore and the inter-state transmission charges paid to PGCIL is Rs.424.44 crore. As per the details furnished in the petition, SBU-D had purchased power from the following sources:

a. Purchase of power from Central Generating Stations
b. Purchase of power from IPPs (wind, SHPs, LSHS stations) within the State
c. Power Purchase from Interstate Generating Stations, Traders, exchanges and Deviation Settlement Mechanism (DSM)

32. Before examining the each of the items, the provisions of the Regulations are quoted below:

Provisions in the Regulations

33. The provisions relating to purchase of power by distribution licensee are governed by Regulations 78 and 79. Relevant portion of the Regulations are reproduced below:

> *78.* ***Approval of power purchase agreement/arrangement. –*** *(1) Every agreement or arrangement for procurement of power by the distribution business/licensee from the generating business/company or licensee or from other source of supply entered into after the date of coming into effect of these Regulations shall come into effect only with the approval of the Commission:*
>
> *Provided that the approval of the Commission shall be required in accordance with this regulation in respect of any agreement or arrangement for power procurement by the distribution business/licensee from the generating business/company or licensee or from any other source of supply on a standby basis:*
>
> *Provided further that the approval of the Commission shall also be required in accordance with this regulation for any change to an existing agreement or arrangement for power procurement, whether or not such existing agreement or arrangement was approved by the Commission.*
>
> .... "

Regulation 79 provides for approval for the short term procurement of power.

> *79. Additional short-term power procurement.– (1) The distribution business/licensee may undertake additional short-term power procurement during the financial year, over and above the power procurement plan approved by the Commission, in accordance with this regulation.*
>
> *(2) (a) Where there has been a shortfall or failure in the supply of electricity from any approved source of supply during the financial year, the distribution business/licensee may enter into agreement or arrangement for additional short-term procurement of power.*
>
> *(b) If the total power purchase cost for any quarter including such short-term power procurement exceeds by five percent of the power purchase cost approved by the Commission for the respective quarter, the distribution business/licensee shall have to obtain approval of the Commission.*
>
> *(3) The distribution business/licensee may enter into a short-term power procurement agreement or arrangement without the prior approval of the Commission under the following circumstances:*

(a) where the distribution business/licensee has identified a new short-term source of supply from which power can be procured at a tariff that reduces its approved total power procurement cost;

(b) when faced with emergency conditions that threaten the stability of the distribution system or when directed to do so by the state load despatch centre to prevent grid failure;

(c) where the tariff for power procured under such agreement or arrangement is in accordance with guidelines for short-term procurement of power by distribution licensees through tariff based bidding process issued by the Central Government:

Provided that the Commission shall indicate a tariff for procurement of short-term power which shall be considered as the approved ceiling tariff for short-term power procurement under bidding guidelines:

(d) when the Commission has specified the maximum ceiling price for power procurement under any contingency situation and power purchase price is within such ceiling price;

(e) procurement of short-term power through power-exchange; and

(f) procurement by way of exchange of energy under 'banking' transactions.

(4) The Commission may stipulate the ceiling quantum and ceiling rate for purchase of power from short-term sources.

(5) Within fifteen days from the date of entering into an agreement or arrangement for short-term power procurement for which prior approval has not been obtained, the distribution business/licensee shall obtain the approval of the Commission by submitting full details of such agreement or arrangement, including quantum, tariff calculations, duration, supplier details, method for supplier selection and such other details as the Commission may require with regard to such agreement or arrangement to assess that the conditions specified in this regulation have been complied with:

Provided that where the Commission has reasonable grounds to believe that the agreement or arrangement entered into by the distribution business/licensee does not meet the criteria specified in this regulation, the Commission may disallow the net increase in the cost of power on account of such procurement.

34. Based on the above provisions, the purchase of power from each source is analysed separately.

a. Power from Central Generating Stations (CGS)

35. The actual energy purchased from CGS at KSEB periphery was 11048.70 MU at a cost of Rs.3596.31 crore. The details of various CGS sources and the cost as per the petition are as shown below:

Table 7

Power Purchased from Central Generating Stations for FY 2015-16

	Audited Accounts	
Station	Energy* (MU)	Cost (Rs crore)
Talcher	3179.79	665.91
NLC Exp Stage I	463.56	175.31
NLC II Stage I	445.15	141.32
NLC II Stage II	599.01	188.16
RSTPS I & II & III	2497.74	732.06
Maps	139.83	17.51
Kaiga Stage I & II	553.88	187.35
Simhadri Exp	780.52	304.90
Kudamkulam	255.66	100.04
NLC II exp	96.11	45.73
NTECL Vallur JV	233.51	87.42
NTPL Tuticorin	231.73	94.87
IGSTPS Jhajjar	1572.20	856.14
Bhavini	0	0.00
East Region **	----	-0.41
Total	**11048.70**	**3596.31**

* *Energy purchased at KSEB Ltd bus;* **Revision claims

36. In this regard, KSEB Ltd has stated that some of the Central Generating Stations which were expected to commence generation during the year 2015-16, were delayed forcing KSEB Ltd to source power from other sources. Further there were corridor constraints in the Southern Region, which hindered KSEB Ltd from sourcing power from other committed sources. According to KSEB Ltd, earnest efforts were made to source power from various sources to meet the demand, thereby avoiding load shedding and power cut during the year.

37. During the year 2015-16, SBU-D had expected that an additional quantity of 298 MW and 1621 MU from four CGS projects viz., the second unit of Kudamkulam Nuclear Power Project, 3rd unit of Vallur JV, NLC Expansion stage-II and Bhavini

Nuclear Power plant. However, there were delays in the commissioning these stations resulting in considerable reduction in the availability of power from these plants as shown below:

Table 8

Projects commissioned after the date of effect of the Regulations

Name of the station	Total capacity (MW)	Allocation to KSEB (%)	Allocated capacity (MW)	Expected COD	Actual COD	Estimated MU	Actual MU
Vallur JV	1500	3.47	52	Mar-15	Feb-15	350.74	233.51
Kudankulam- II unit	1000	13.3	133	Jan-16	Mar-17	868.34*	255.66*
NLC- Exp- Stage-II	2 x 250	14	70	U1: April-2015	July-15	267.24	96.11
				U2: Dec 2015	April-15		
Bhavini Nuclear Plant	500	8.60	43	Sep-15	-	134.88	0
Total	3500		298			1621.2	585.28

* From Koodankulam plant comprising 2 units

38. The Commission notes that NTECL Vallur plant could achieve a plant availability factor of only 58.85% against normative availability factor of 85% due to internal problems relating to unloading of coal. The second unit at Kudamkulam was not synchronised to the grid during the year as expected. Further Unit-I of the plant was under shut down from July 2015 to January 2016. In NLC expansion Stage II, the plant availability was only 19.39% against the normative of 75% during 2015-16. Bhavini Nuclear Power Plant was also not commissioned during the year. Thus there was a reduction in total energy availability of 1036 MU (1621.2 MU-585.28MU) from the above four power plants during 2015-16.

39. It is also seen that there were severe corridor constraints in the southern region and open access applications for LTA, MTOA and STOA by KSEB Ltd were only partly successful. In view of the corridor constraints, KSEB Ltd requested MoP for enhancing the power allocation from Jhajjar to 300 MW from 167 MW up to 31.03.2016, since from this plant had assured transmission corridor. Thus 1572.20 MU of energy was purchased from Jhajjar plant against proposed 1115.48 MU in ARR. The availability of power from CGS was more, mainly due to enhanced allocation from Jhajjar and better plant availability in some of the central stations.

Objections of stakeholders

40. The Association pointed out that there is a difference in per unit cost of energy purchased by KSEB Ltd vis-à-vis the other constituents in the Southern Region, such as TANGEDCO and BESCOM. The Association requested the Commission to examine the actual power purchase bills and blending ratio of domestic and imported coal before allowing the variable cost. According to the Association, the cost of additional purchase on account of excess T&D loss and auxiliary consumption to the tune of 84.16MU should deducted from the marginal plant ie., cost of RGCCPP (Rs.8.13/kWh and BSES (Rs.12/kWh). Hence a total of Rs.70.51 crore is to be deducted from purchase of power. Accordingly the total cost power purchase to be allowed should be Rs.6266.32 crore instead of Rs.6336.82 crore sought by KSEB Ltd.

Analysis and decision of the Commission

41. The Commission has examined the details furnished by KSEB Ltd regarding power purchase and the objections of the stakeholders including the HT-EHT Associations. Regarding the objections of the Association that the cost of purchase of power from central stations by KSEB Ltd is higher than that of BESCOM and TANGEDCO, KSEB Ltd has furnished a detailed reply. According to KSEB Ltd power purchase cost for the central stations differ on account of non-uniform allocation of power from different sources, PoC loss higher in Kerala, and no coal or lignite stations are located in the State. Based on the details furnished by KSEB Ltd the Commission is of the view that higher cost of power purchase from CGS stations if any is justified.

42. In 2015-16, KSEB Ltd sourced 11049 MU of power from Central Generating Stations from these stations at a cost of Rs.3596.27 crore. Of this, an amount of Rs.113.34 crore was adjusted against the supplementary claims and provision. KSEB Ltd has stated that during the year 2015-16, power was procured from Central Generating Stations for which power purchase agreements were entered into before the date of coming into effect of these Regulations.

43. Considering the details furnished by KSEB Ltd the Commission approves the purchase of power from CGS as sought by KSEB Ltd as shown below:

Table 9
Summary of procurement of power from CGS

Particulars		Sub total
Energy produced/ purchased	MU	11471.07
External loss	MU	422.38
Net energy input to KSEB system	**MU**	**11048.70**
Fixed costs	Rs crore	1000.83
Incentive	Rs crore	25.02
Supplementary claims & provisions		-113.32
Total variable cost	Rs crore	2683.78
Total cost	**Rs crore**	**3596.31**

44. ***Thus the total cost of purchase of power from CGS is approved at Rs.3596.31 crore for a net energy input of 11048.70 MU at the KSEB Ltd periphery.***

b. Purchase of power from IPPs within the State

45. During this period, SBU-D had also procured power from IPPs within the State. These IPPs include the liquid fuel stations of RGCCPP, BSES and KPCL and other wind and Small Hydro Projects (SHPs). KSEB Ltd in their petition claimed that SBU-D had purchased 278.28MU from IPPs within the State costing Rs.421.10 crore. The Commission sought clarification and further details vide letter dated 3-5-2018. KSEB Ltd furnished the details vide letter dated 28-5-2018. Since the details furnished by KSEB Ltd was insufficient and inconsistent, the Commission again sought further clarifications vide letter dated 4-7-2018 for explaining the discrepancy in the figures of auxiliary consumption and the fixed cost of IPPs.

46. In reply KSEB Ltd explained that the net generation from IPPs of 278.28 MU. However, the energy consumed by BSES and RGCCPP from KSEB grid for auxiliary consumption was not deducted from the gross generation. In the revised figures, KSEB Ltd stated that the total generation by IPPs for the year 2015-16 was

288.82MU and 10.54MU was consumed by BSES and RGCCPP during the non-operative period resulting in net availability of 278.28MU. In the letter dated 6-7-2018, KSEB Ltd also corrected the arithmetical error while furnishing the fixed costs of IPPs furnished vide letter dated 28-5-2016.

47. The details of power purchased and cost of power from IPPs are as shown below:

Table 10

Power Purchase from IPPs

Source	Net energy	Total cost
	MU	Rs crore
IPPS		
RGCCPP	138.90	279.68
BSES	5.15	90.21
KPCL	7.21	4.88
Wind	57.40	18.33
Ullumkal	18.26	4.46
MP Steel	-	-
Iruttukkanam	15.69	6.85
Iruttukkananm-II	9.14	-
Karikkayam	26.99	11.23
Meen vallom	5.56	3.96
INDSIL	4.25	1.33
Kallar	0.21	0.08
Mankulam gramapanchayath	0.06	0.09
Total	**288.82**	**421.10**
BSES consumption from grid	-1.44	
RGCCPP consumption from grid	-9.10	
Net generation	**278.28**	**421.10**

Analysis and decision of the Commission

48. The Commission notes that KSEB Ltd procured 278.28 MU from the various IPPs within the State for an amount of Rs.421.10 crore. The details of the costs unit wise is given below:

Table 11
Cost of purchase of power from IPPs

Source	Energy produced/ purchased	Net energy input	Fixed costs	Supplementary claims & provisions	Variable cost	Total cost
	MU	**MU**	**Rs crore**	**Rs crore**	**Rs crore**	**Rs crore**
IPPS						
RGCCPP	138.90	138.90	211.22	-37.10	105.57	279.68
BSES	5.15	5.15	42.93	41.07	6.21	90.21
KPCL	7.21	7.21	0.00	4.88	0.00	4.88
Wind IPPS	57.40	57.40	0.00	0.00	18.33	18.33
Ullumkal	18.26	18.26	0.00	0.00	4.46	4.46
Iruttukkanam	15.69	15.69	0.00	0.00		
Iruttukkanam-II	9.14	9.14	0.00	0.00	6.85	6.85
Karikkayam	26.99	26.99	0.00	0.00	11.23	11.23
Meen vallom	5.56	5.56	0.00	1.27	2.69	3.96
INDSIL	4.25	4.25	0.00	0.00	1.33	1.33
Kallar	0.21	0.21	0.00	0.00	0.08	0.08
Mankulam GP	0.06	0.06	0.00	0.00	0.09	0.09
Sub Total	**288.82**	**288.82**	**254.14**	**10.12**	**156.84**	**421.10**

Purchase of Power from BSES

49. Of the above IPPs, the PPA with BSES expired on 31-10-2015. KSEB Ltd stated that only 5 MU from this plant was procured during May 2015 to tide over the load shedding and power cut. The major share of the cost for this station is the fixed cost and supplementary claims. KSEB Ltd stated that the supplementary claims include Rs 22.76 crores towards MAT reimbursement, Rs.15.00 crores on Fuel adjustment charges and Rs 33.31 crore as adjustment against provisions. As per the direction of Hon High Court of Kerala, M/s BSES has filed a petition before the Commission and the same is pending. **Considering this, and the fact that the purchase of power is within the PPA period, the Commission approves Rs.90.21 crore as the cost of power purchase from BSES.**

Purchase of power from RGCCPP

50. The Commission examined the purchase of power from RGCCPP. Though the PPA for RGCCPP expired on 28-2-2013, KSEB entered into a supplementary PPA with M/s NTPC on 15-2-2013, for extending the validity of the PPA for a further period of 12 years from 1-3-2013. However, though Section 86 of the Act required approval of all PPAs by the Appropriate Commission, KSEB did not seek this

approval. Hence, the Commission in November 2016, communicated to KSEB Ltd to obtain the Commission's approval for extension of PPA with RGCCPP. But this direction was not complied with. Hence, after considering the legal position and related issues, the Commission decided to exclude the fixed cost of RGCCPP from ARR of the KSEB Ltd and also issued directions to take steps effectively to reduce the fixed cost of the plant.

51. In the order on *suo motu* determination of tariff dated 17-4-2017, the Commission has observed that considering the interest of the consumers in the State, the Commission is not inclined to accept any fixed cost commitment for RGCCPP Kayamkulam for 2016-17 and 2017-18. Further in the Order dated 27-4-2017, the Commission has decided 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, in view of the facts, the statutory provisions and the financial propriety explained above.

    (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.

52. In compliance of the directions of the Commission, KSEB Ltd in its letter dated 12-6-2018 furnished compliance report. In the said compliance report, KSEB Ltd had narrated the steps taken for reducing the fixed charges of RGCCP. KSEB Ltd stated that a petition was filed before CERC, in which CERC had directed the parties, KSEB Ltd and NTPC to undertake mutual discussions for settlement of issues and report the outcome. Though several round of discussions at various levels were taken place, a settlement was not reached. Hence, KSEB Ltd sought permission of the Government of Kerala for initiating the process of reviewing the PPA with NTPC. KSEB Ltd had taken position that the plant need not be scheduled beyond 1-3-2018 and any claims for the subsequent period would be considered only based on the outcome of the review process. In response, one

more round of discussions were held with NTPC and NTPC offered for pre-revised AFC of Rs.207 crore for each year for the current tariff period.

53. Further, as per the discussions taken by GoK with CMD of NTPC, the annual fixed cost payable by KSEB Ltd was further reduced to Rs.200 crore for the control period with a liberty to review in 2018-19. It was also been informed that NTPC has consented to provide the difference of the amount to Rs.7.13 crore per year directly in the adjustment of the current payment or reimburse the amount by way of CSR funding to KSEB Ltd. GoK in its letter dated 10-5-2018 directed KSEB Ltd to reimburse the amount rather than accepting CSR funding.

54. The Commission has examined the details furnished by KSEB Ltd. The fixed cost of the plant is now lower than the pre-revised rates or rates applicable to the previous control period. As directed by the Government, KSEB Ltd shall adjust the excess amount of Rs.7.13 crore against the payments to NTPC.

55. ***Thus, the Commission for the purpose of truing up accept the fixed charges at Rs.200 crore for 2015-16 and the actual variable charges of Rs.105.57 crore and adjustments of Rs.-37.10 crore. Thus the total amount approved for RGCCPP is Rs.268.46 crore***.

56. Based on the above deliberation, the Commission hereby approves Rs.409.88 crore as cost of power purchased from IPPs within the State as shown in the table below:

Table 12

Approved power purchase cost from IPPs within the State

<table>
<tr><th rowspan="2">Source</th><th>As per petition</th><th>Approved</th></tr>
<tr><th>Rs crore</th><th>Rs crore</th></tr>
<tr><td>RGCCPP</td><td>279.68</td><td>268.46</td></tr>
<tr><td>BSES</td><td>90.21</td><td>90.21</td></tr>
<tr><td>KPCL</td><td>4.88</td><td>4.88</td></tr>
<tr><td>Wind IPPS</td><td>18.33</td><td>18.33</td></tr>
<tr><td>Ullumkal</td><td>4.46</td><td>4.46</td></tr>
<tr><td>Iruttukkanam</td><td rowspan="2">6.85</td><td>6.85</td></tr>
<tr><td>Iruttukkanam-II</td><td>-</td></tr>
<tr><td>Karikkayam</td><td>11.23</td><td>11.23</td></tr>
<tr><td>Meen vallom</td><td>3.96</td><td>3.96</td></tr>
<tr><td>INDSIL</td><td>1.33</td><td>1.33</td></tr>
<tr><td>Kallar</td><td>0.08</td><td>0.08</td></tr>
<tr><td>Mankulam GP</td><td>0.09</td><td>0.09</td></tr>
<tr><td>Sub Total</td><td>421.10</td><td>409.88</td></tr>
</table>

c. Power Purchase from Interstate Generating Stations, Traders, exchanges and DSM:

57. KSEB Ltd stated that since the demand cannot be met from the energy available from their own generation, CGS stations and other sources within the State, earnest efforts were taken to procure energy through traders, DSM and exchanges at most competitive rates. Overall 4570.76 MU was purchased at a total cost of Rs. 1894.98 crore. The details are furnished below:

Table 13
Power contracted through traders and exchange

Trader	Energy in MU	Cost (Rs crore)	Unit Cost (Rs)
Maithon Power Ltd	300.45	108.75	3.62
Damodar valley Corporation	8.35	3.70	4.43
Power Trading Corporation of India Ltd.	1557.94	741.06	4.76
NTPC Vidyut Vyapar Nigam Limited (NVVN)	1115.24	534.73	4.79
Thermal Power tech	21.18	12.25	5.78
JSW Power Trading Company Ltd.	83.67	49.93	5.97
Swap GMRETL	75.40	2.14	0.28
IEX Ltd.	675.15	285.69	4.23
PXI Ltd.	40.04	16.83	4.20
Deviation Settlement mechanism	693.34	139.89	2.02
Total	**4570.76**	**1894.98**	**4.15**

58. KSEB Ltd stated that since there was a was a shortfall of 872.47 MU in power availability from firm sources for the period from April 2015 to November 2015 on account of corridor constraints. KSEB Ltd had, scheduled 129.80 MU during the months of June 2015, August 2015, September 2015 and October 2015 for a cost of Rs 279.68 crore (including fixed charges of Rs.211.22 crore) from short term sources. KSEB Ltd has given a detailed explanation on the issues faced during the year regarding sourcing of power to meet the demand.

59. KSEB Ltd. furnished the details of the PPAs entered into with generators/traders for power purchase on long term, medium term and short term contracts with the approval of the Commission as shown in Table below:

Table 14

Details of the power purchase agreements with generators/traders

Sl No.	Name of the generator/ trader	Quantity (MW)	Period of contract	Approx. rate of Generator bus (Rs./unit)	Remarks
	<u>1. Long term contract</u>				
1	TATA Maithon	150	Dec- 2013 to July- 2042	4.20	Long Term Access (LTA) applied during Dec- 2013
2	DVC	250	May- 2014 to April-2039	4.20	LTA applied for during Apr-2014
	<u>2. Medium term contract</u>				
1	PTC India	100	March- 2014 to Feb- 2017	4.45	MTOA granted for part capacity (232 MW)
2	NVVN	300	March- 2014 to Feb-2017	4.49	
	<u>3. Short term contract</u>				
1	Uduppi Power Corporation	18.5	June-2014 to May-2015	5.02	Available for April & May 2015, subject to STOA. (<u>Weighted average rate-Rs.5.80/unit at KSEB periphery)</u>
2	Thermal Power Tech	175		5.5	
3	PTC India Ltd.	130		5.56	
4	JSW Power Trading Company Ltd.	200		5.66	
5	PTC India	300	June-2015 to May-2016	Rs.5.18/unit (Rs.5.465/ unit at KSEB periphery	Available from June-2015 to March-2016

60. Details of the approval received from the Commission for the purchase of power are given below:

Table 15

Summary of approval obtained for power purchase from KSERC

Approval Letter	Name of trader/IPP	Contracted capacity MW	Period
No.2158/C.Engg/Maithon/2013/1398 dated 26.12.2013	M/s.TATA MAITHON	150	Dec-2013 to July-2042
Order No.O.P.32/15 dated 21.01.2016	M/s.DVC Mejia	100	May- 2014 to Apr-2039
No.828/C.Engg/Case.1/KSERC/2013/594 dated 24.05.2013.	M/s.PTC	100	March-2014 to Feb-2017
No.828/C.Engg/Case.1/KSERC/2013/594 dated 24.05.2013.	M/s.NVVN	300	March-2014 to Feb-2018

61. KSEB Ltd stated that with the successful conclusion of ongoing litigation initiated by KSEB Ltd before CERC against CTU on the matter of grant of MTOA and LTA, the availability of power at cheaper rates improved by the end of the 2015-16 and KSEB Ltd could reduce dependence of Jhajjar and other comparably costlier sources. 150MW power become available under LTA from Maithon from December 2015 and 100 MW under LTA from DVC from March 2016. The power from Jhajjar was accordingly got de-allocated from March 2015 based on request made by KSEB Ltd.

62. Similarly the grant of MTOA against application for 400 MW from M/s NVVN (300 MW) and PTC (100 MW) improved from 3 MW to 397 MW gradually. MTOA for PTC was initially denied and subsequently based on CERC order 58 MW was granted from March 2015, which was enhanced to 100 MW from May 2015. In respect of MTOA for M/s NVVN, 174 MW was available for an interim period (March 2015 – 25th April 2015) which was withdrawn in April 2015. Thereafter MTOA was reinstated with 109 MW from 22-10-2015 which was enhanced to 238 MW from December 2015 and thereafter to 297 MW from 16-12-2015. Thus 300 MW power tied up with NVVN through case- 1 Bid route became fully available from 16.12.2015 only. Hence only 1115 MU could be availed from NVVN in 2015-16 against the estimated quantum of 1467.30MU.

63. In view of the transmission constraint, 3023.58 MU was estimated through STOA expecting that at least 50% of the contracted capacity will be available during the year 2015-16**.** KSEB Ltd had contracted 301 MW power from Southern Region (Simhapuri) through PTC from June 2015 to May 2016 in short term. 875.52 MU was estimated to be received through this contract. Additionally KSEB Ltd had issued LoIs for purchase of power as enumerated below for meeting the anticipated energy shortage during the summer months:

(a) LoI for 348.5 MW from generators/ traders in Southern Region for the period from June-2014 to May-2015

(b) LoI for 175 MW from generators/ traders in the Southern Region for the period from February-2015 to May-2015 and

(c) In addition, 191.60 MU from Southern Region was also proposed for April and May 2015.

64. However, against an anticipated availability of 3023.53 MUs based on the above LOIs, KSEB Ltd received only 2714.96 MU, leaving a shortfall of 308.57 MU. The shortfall was severe during the initial period from April 2015 to November 2015 where the shortfall was 872.47 MU. This was because of denial of open access due to corridor constraints which existed in NEW grid-SR and S1-S2 region as detailed below.

65. In respect of contract for 300 MW from Southern Region - Simhapuri through PTC from June 2015 to May 2016 on short term basis, CTU granted MTOA during April 2016 only due to corridor constraints. Small quantum of power was scheduled on day ahead/advance basis when ever corridor was available. KSEB Ltd has furnished copies of denial letters on open access by CTU.

66. Similarly, the MTOA applications for transfer of 200 MW through M/s JSW PTC for the period from 1st October 2014 to 31st May 2015 and 175 MW through M/s TPCIL for the period from 01.02.2015 to 31.05.2015 were rejected by PGCIL, reasoning that MTOA could not be granted due to limitation in ATC for import between S1&S2 areas.

67. In the case of contract with UPCL, request made by KSEB Ltd to SRLDC for scheduling power was rejected as SLDC, since Karnataka did not give consent stating that the first and the primary option rests with ESCOMs of Karnataka, they being principal buyers of UPCL power. Also, Karnataka Government invoked section 11 of Electricity Act 2003. Even though the matter was taken up further, Karnataka SLDC maintained their earlier stand and refused to consider the application of KSEB Ltd. However, total quantum received through LTA/MTOA/STOA was 3086.84 MU in 2015-16. This is due to the improvement in availability from November 2015 onwards with successful completion of litigations on open access matter.

68. In view of the above constraints and short falls in power availability in the State, KSEB ltd was forced to scheduled liquid fuel stations within the state after availing full opportunity of the day ahead market and DSM. KSEB Ltd scheduled 1483.93 MU through energy exchanges against the estimated 1482.36 MU; with a total cost of Rs.443.99 crore @ Rs 2.99/unit. Out of this 693.34 MU was obtained through DSM for Rs.139.89 crore at Rs. 2.02 per unit, though this cannot be treated as a source of power and it can be considered only as a means to impose grid discipline. According to KSEB Ltd. per unit cost of actual procurement from

exchanges and through DSM was kept well within the approved rate as shown below.

Table 16

Summary of the energy procurement through traders and energy exchanges

Name of Trader	Energy in MU	Rs in crore	Rate (Rs./unit)
Maithon Power Ltd.	300.45	108.75	3.62
Damodar Valley Corporation	8.35	3.7	4.43
Power Trading Corporation of India Ltd.	1557.94	741.06	4.76
NTPC Vidyut Vyapar Nigam Limited (NVVN)	1115.24	534.73	4.79
Thermal Powertech	21.18	12.25	5.78
JSW Power Trading Company Ltd.	83.67	49.93	5.97
Swap GMRETL	75.4	2.14	0.28
IEX Ltd.	675.15	285.69	4.23
PXI Ltd.	40.04	16.83	4.20
Deviation Settlement Mechanism	693.34	139.89	2.02
Total	4570.76	1894.98	4.15

69. Regarding power from BSES, KSEB Ltd stated that was forced to scheduled 5.15 MU at a cost of Rs.90.21 crore during May 2015, to tide over an emergency situation and to avoid a possible load shedding and power cut. KSEB Ltd also availed 7.21MU of power from KPCL plant at a cost of Rs 4.88 crore. KPCL was scheduled for testing during August 2015 and in Dec 2013, KPCL could not run the plant as per the Availability declared by it.

70. However, SLDC Kalamassery certified that the availability declaration by KPCL was false and revised the deemed generation of the Plant to zero from June 2013. In order to settle the issues between M/s KPCL and KSEB Ltd, KPCL filed petitions on 10/11/2011 before the Commission. Based on the final order dated 1/11/2013 and 9/4/2014 of the Commission several round of discussions were held with KPCL at Board level .Subsequently KPCL and KSEB Ltd mutually agreed to arrive at a settlement on 15/11/2014 on the outstanding amount and capacity declaration. Accordingly KPCL had to operate the plant for a continuous period of 15 days to prove the capacity declaration programme of the three machines as per the terms of PPA. Thus, the plant was run for fifteen days from 1/8/2015 to 26/8/2015 including preparation time.

71. Thus, according to KSEB Ltd, the liquid fuel stations were scheduled to tide over the short fall in energy availability. Accordingly, as per the details furnished in the petition, a total of 144.64MU was scheduled during the months of June, August, September and October 2015 as shown below:

Table 17
Scheduling of liquid fuel stations for meeting the deficit

Month	Jun-15 (MU)	Aug-15 (MU)	Sep-15 (MU)	Oct-15 (MU)
Demand	1734.54	1872.34	1846.43	1895.31
Hydro	514.46	668.62	580.62	528.53
KSEB wind & solar	0.15	0.18	0.09	0.24
CGS	927.79	873.36	833.73	966.29
Small IPPs	18.69	20.81	15.5	11.9
Traders firm	103.93	105.62	128.44	148.57
KDPP	14.73	9.31	32.23	9.23
Short term	151.56	169.38	155.16	214.87
Total Availability	**1731.3**	**1847.28**	**1745.77**	**1879.63**
Balance required	**3.24**	**25.06**	**100.66**	**15.68**
BDPP	**0.15**	**0.08**	**-**	**-**
RGCCPP	**3.08**	**17.76**	**100.65**	**14.33**
KPCL	**--**	**7.21**	**--**	**1.37**
Total	**3.23**	**25.05**	**100.65**	**15.70**

Provisions in the Regulations

72. In this context, it is to be noted that provisions regarding purchase of power is mentioned in Regulation 79. Regulation 79(3) specifies that in the following situations, a distribution licensee may enter into short term procurement of power without the prior approval of the Commission:

"a)where the distribution business/licensee has identified a new short-term source of supply from which power can be procured at a tariff that reduces its approved total power procurement cost;

(b)when faced with emergency conditions that threaten the stability of the distribution system or when directed to do so by the state load despatch centre to prevent grid failure;

(c) where the tariff for power procured under such agreement or arrangement is in accordance with guidelines for short-term procurement of

power by distribution licensees through tariff based bidding process issued by the Central Government:

Provided that the Commission shall indicate a tariff for procurement of short-term power which shall be considered as the approved ceiling tariff for short-term power procurement under bidding guidelines:

(d) when the Commission has specified the maximum ceiling price for power procurement under any contingency situation and power purchase price is within such ceiling price;

(e) procurement of short-term power through power-exchange; and

(f) procurement by way of exchange of energy under 'banking' transactions. "

73. The relevant portion of the Regulation 79(5) is given below:

> *"(5) Within fifteen days from the date of entering into an agreement or arrangement for short-term power procurement for which prior approval has not been obtained, the distribution business/licensee shall obtain the approval of the Commission by submitting full details of such agreement or arrangement, including quantum, tariff calculations, duration, supplier details, method for supplier selection and such other details as the Commission may require with regard to such agreement or arrangement to assess that the conditions specified in this regulation have been complied with:*
>
> *Provided that where the Commission has reasonable grounds to believe that the agreement or arrangement entered into by the distribution business/licensee does not meet the criteria specified in this regulation, the Commission may disallow the net increase in the cost of power on account of such procurement.*

Analysis and decision of the Commission

74. As per Regulation, KSEB Ltd is required to seek approval of the Commission for procurement of power. In the petition, KSEB Ltd stated that in the case of IPPs within the State, approval of the Commission was obtained in respect of PPAs entered into from 2014 onwards. Further, approvals were also taken for procurement of power from the traders/generators outside the State as shown below:

Table 18

Details of the approval for power purchase

Name of trader/IPP	Approval Letter / Order of Hon Commission	Capacity
M/s TATA MAITHON	No.2158/C.Engg/Maithon/2013/1398 dated 26.12.2013	150 MW
M/s DVC Mejia	No.500/C.Engg/DVC/2014/348 dated 28.03.2014 & 21.01.2016	100 MW
M/s PTC BALCO	No 828/C.Engg/Case.1/KSERC/2013/594 dated 24.05.2013	100 MW
M/S NVVN	No 828/C.Engg/Case.1/KSERC/2013/594 dated 24.05.2013	300 MW
M/s PTC Simhapuri	Letter No 2023/C.Engg/POP/2014/1296 dated 05.12.2014	300 MW
M/s JSWPTC	Letter No 0653/C.Engg/POP/2014/451 dated 28.04.2014	200 MW
M/s TPCIL	Letter No 0653/C.Engg/POP/2014 /451 dated 28.04.2014	175 MW

75. The details of the power purchased from traders, exchange and DSM are as shown below:

Table 19

Approved power purchase cost from Traders, Exchange and other sources

Source	Net energy input to KSEB T&D system	Fixed costs	Total variable cost	Total cost	Average Cost
	MU	Rs crore	Rs crore	Rs crore	(Rs./kWh)
LTA					
Maithon	300	48.32	60.43	108.75	3.62
Mejia	8	1.83	1.88	3.70	4.43
Sub Total	**309**	**50.14**	**62.31**	**112.45**	**3.64**
MTOA/STOA					
NVVN	1115		534.73	534.73	4.79
BALCO	644		245.67	245.67	3.82
Simhapuri	914		495.39	495.39	5.42
JSWPTC	84		49.93	49.93	5.97
TPCIL	21		12.25	12.25	5.78
Sub Total	**2778**		**1,337.96**	**1,337.96**	**4.82**
IEX	675		285.69	285.69	4.23
PXIL	40		16.83	16.83	4.20
DSM	693		139.89	139.89	2.02
Swap	75		2.14	2.14	0.28
Sub total	**1484**		**444.56**	**444.56**	**3.00**
Sub Total traders & Others	**4571**	**50.14**	**1,844.83**	**1,894.97**	**4.15**

76. In addition to the above, KSEB Ltd had also procured power from sources such as power exchanges and deviation settlement mechanism. On this count, KSEB Ltd in its letter dated 28-5-2018 had stated that as per the provisions of Regulation

79(2)(e)&(f) no prior approval of the Commission is required for the following transactions:

- 715.19 MU was procured through power exchanges,
- 693.34 MU through deviation settlement mechanism,
- 75.14 MU through swap arrangements

It was also mentioned that KSEB Ltd has been regularly furnishing the month wise details of short term power purchase the Commission.

77. As per Regulation 79(3), in the case of procurement of power on short term basis through power exchange and banking arrangement no prior approval of the Commission is required. However, as per Regulation 79(5), KSEB Ltd has to formally seek approval of the Commission within 15 days of the date of entering in to the agreement or arrangement for short term purchases for which prior approval has not been obtained. The said Regulation also provides the manner in which such approvals have to be obtained. Further the proviso to the Regulation also states the treatment of such power purchase ie., the Commission may disallow the net increase in the cost of power on account of such procurement.

78. ***Thus, periodic reporting of monthly power purchase by KSEB Ltd shall not absolve the responsibility of obtaining post facto approval of the Commission as per the provisions of the Regulations.***

d. Inter-state Transmission charges paid to PGCIL:

79. ***During the year 2015-16, KSEB Ltd had paid Rs 424.44 crore to PGCIL as transmission charges. The Commission after duly examining the claim approves the same for the purpose of truing up***.

Summary of Power purchase for 2015-16 by SBU-D

80. The summary of power purchase for the year 2015-16 is as shown below:

Table 20
Power Purchase for the year 2015-16

Particulars	Actual	
	Energy (MU)	Cost (Rs crore)
Central Generating Stations	11048.70	3596.31
IPPs and liquid fuel stations.	278.28	421.10
Traders firm	3086.84	1450.41
Traders / Exchanges/UI	1483.93	444.55
Total	15897.74	5912.38
Intra state transmission charges		424.44
Total	15897.74	6336.82

81. In the letter dated 28-5-2018, KSEB Ltd has furnished the summary of cost of generation and power purchase for the year 2015-16. The same was modified vide letter dated 6-7-2018. The revised figures are reproduced below:

Table 21
Cost of generation and power purchase for 2015-16

Source	Energy produced/ purchased	Aux consumption	External loss	Net energy input	Fixed costs	Incentive	Supplementary claims & provisions	Variable cost	Total cost
	MU	MU	MU	MU	Rs crore	Rs crore	Rs crore	Rs crore	Rs crore
Generation									
Hydro	6639.02	33.35		6605.67					
Thermal									
BDPP	13.25	1.13		12.12				12.58	12.58
KDPP	137.38	3.97		133.41				91.68	91.68
Sub Total	150.63	5.11		145.53				104.26	104.26
Wind	1.38	0.00		1.38					
Solar	0.81	0.00		0.81					
Sub total	6791.84	38.46		6753.39				104.26	104.26
Substn Aux Consmpn		14.14		-14.14					
Net Generation	6791.84	52.60		6739.24				104.26	104.26
Power Purchase									
Central Generating Stations									
NTPC-RSTPS 1&2	2000.21		73.39	1926.82	109.53	6.63	-34.03	465.96	548.10
NTPC-RSTPS 3	592.59		21.67	570.92	45.89	4.05	-7.13	141.14	183.96
IGSTPS(Jhajjar)	1633.51		61.30	1572.20	253.12		-21.41	624.44	856.14
Talcher Stage-II	3301.14		121.35	3179.79	233.92	13.75	-25.59	443.82	665.91
Simhadri	810.39		29.87	780.52	117.40	0.58	-15.74	202.65	304.90
NLC-Stage-1	461.98		16.83	445.15	29.05		2.61	109.66	141.32
NLC-Stage-II	621.72		22.71	599.01	40.48		0.12	147.55	188.16
NLC I Expansion	481.08		17.52	463.56	64.96		2.43	107.92	175.31
NLCII Expansion	99.97		3.86	96.11	23.86		-0.27	22.14	45.73
Vallur STPS	242.46		8.95	233.51	41.52		-2.55	48.45	87.42
MAPS	145.16		5.33	139.83	0.00		-12.08	29.59	17.51
KAIGA	574.94		21.06	553.88	0.00		10.11	177.24	187.35
Kudamkulam	264.79		9.13	255.66	0.00		-6.41	106.45	100.04
NTPL	241.14		9.40	231.73	41.08		-2.99	56.78	94.87

Eastern region	0.00		0.00	0.00	0.00		-0.41	0.00	-0.41
Sub total	11471.07		422.38	11048.70	1000.83	25.02	-113.32	2683.78	3596.31
IPPS									
RGCCPP	138.90		0.00	138.90	211.22		-37.10	105.57	279.68
BSES	5.15		0.00	5.15	42.93		41.07	6.21	90.21
KPCL	7.21		0.00	7.21	0.00		4.88	0.00	4.88
Wind IPPS	57.40		0.00	57.40	0.00		0.00	18.33	18.33
Ullumkal	18.26		0.00	18.26	0.00		0.00	4.46	4.46
Iruttukkanam	15.69		0.00	15.69	0.00		0.00		
Iruttukkanam-II	9.14		0.00	9.14	0.00		0.00	6.85	6.85
Karikkayam	26.99		0.00	26.99	0.00		0.00	11.23	11.23
Meen vallom	5.56		0.00	5.56	0.00		1.27	2.69	3.96
INDSIL	4.25		0.00	4.25	0.00		0.00	1.33	1.33
Kallar	0.21		0.00	0.21	0.00		0.00	0.08	0.08
Mankulam GP	0.06		0.00	0.06	0.00		0.00	0.09	0.09
Sub Total	**288.82**		**0.00**	**288.82**	**254.14**	**0.00**	**10.12**	**156.84**	**421.10**
BSES (Consumption from grid)	-1.44			-1.44	0.00		0.00	0.00	0.00
RGCCPP (consumption from grid)	-9.10			-9.10	0.00		0.00	0.00	0.00
IPPs Sub Total	278.28	0.00	0.00	278.28	254.14	0.00	10.12	156.84	421.10
Traders									
LTA									
Maithon	311.72		11.27	300.45	48.32		0.00	60.43	108.75
Mejia	8.64		0.29	8.35	1.83		0.00	1.88	3.70
Sub Total	320.37		11.56	308.80	50.14		0.00	62.31	112.45
MTOA/STOA									
NVVN	1161.59		46.35	1115.24	0.00		0.00	534.73	534.73
BALCO	671.60		27.84	643.76	0.00		0.00	245.67	245.67
Simhapuri	935.01		20.83	914.18	0.00		0.00	495.39	495.39
JSWPTC	85.34		1.68	83.67	0.00		0.00	49.93	49.93
TPCIL	21.60		0.42	21.18	0.00		0.00	12.25	12.25
Sub Total	2875.15		97.11	2778.03	0.00		0.00	1337.96	1337.96
IEX	690.88		15.73	675.15	0.00		0.00	285.69	285.69
PXIL	41.05		1.01	40.04	0.00		0.00	16.83	16.83
DSM	693.34		0.00	693.34	0.00		0.00	139.89	139.89
Swap	78.22		2.82	75.40	0.00		0.00	2.14	2.14
Sub total	1503.49		19.56	1483.92	0.00		0.00	444.56	444.56
Sub Total traders	4699.00		128.24	4570.76	50.14		0.00	1844.83	1894.97
Total PP	16448.35		550.62	15897.74	1305.11	25.02	-103.21	4685.45	5912.37
Transmission charges	0.00		0.00	0.00	0.00		0.00	0.00	424.44
Grand Total PP	16448.35		550.62	15897.74	1305.11	25.02	-103.21	4685.45	**6336.82**
Total Gen & PP	**23240.20**	**52.60**	**550.62**	**22637**	**1305.11**	**25.02**	**-103.21**	**4789.71**	**6441.08**

**Supplementary claims includes revision due to foreign exchange variation, MAT claims, water cess , energy revision charges, capacity revision charges, RLDC refund, secondary fuel adjustment charges, water cess, heavy water adjustment charges etc*
For BSES supplementary claims include s Rs 22.76 crore as MAT claims,-15.00 crore Fuel adjustment charges, s 33.31 crore as provision adjustments

Analysis and decision of the Commission

82. Based on the details furnished above, the Commission examined the proposal and approves the purchase of power by SBU-D of KSEB Ltd as shown above.

Table 22
Summary of purchase of power approved for the year 2015-16

	As per the Petition			Approved in Truing up		
Source	Energy produced/ purchased	Net energy input to KSEB T&D system	Total cost	Energy produced/ purchased	Net energy input to KSEB T&D system	Total cost
	MU	MU	Rs crore	MU	MU	Rs crore
Central Generating Stations	11471	11,049	3,596.31	11471	11,049	3,596.31
IPPS	278.	278	421.10	278	278	409.88
Traders & Others	4699	4,571	1,894.97	4699	4,571	1,894.97
Transmission charges			424.44			424.44
Grand Total Power purchase	16488	15898	6,336.82	16488	15,898	6,325.60

83. ***The total power purchase cost approved for 2015-16 is Rs.6325.60 crore as against Rs.6336.82 crore as per the accounts.*** The difference in the approved power purchase cost and the actual as per the accounts is on account of the reduction of Rs.11.22 crore in the fixed charges of RGCCPP due to re-negotiation with NTPC.

O&M expenses

84. In this petition, KSEB Ltd has claimed the O&M expenses of SBU-D as Rs.3116.80 crore as shown below:

Table 23
Components of O&M Expenses

No	Particulars	Amount (Rs crore)
1	Employee Cost	2669.83
2	A&G Expenses	261.15
3	R&M Expenses	185.82
4	**Total**	**3116.80**

85. The Commission has examined each of these components vis-a-vis the Regulations and the same is brought out separately in the following paragraphs.

Employee cost :

86. As per the details given in the petition, the employee cost increased from Rs.2893.70 in 2014-15 to Rs.3104.54 crore in 2015-16 for KSEB Ltd. Against the total employee costs of KSEB Ltd at Rs.3104.54 crore for 2015-16, employee cost booked for SBU-D was Rs.2669.83 crore indicating that the share of employee cost under SBU-D is the highest. The terminal benefits for SBU-D is Rs. 926.79 crore. The employee costs excluding terminal benefits is Rs.1743.04 crore for SBU-D

Judgment of High Court in Writ Petition WPC No.465/2015(G)

87. As mentioned in Chapter 1, after the notification of the Regulations, KSEB Ltd challenged the validity of the said Regulations before the Hon'ble High Court of Kerala in the Writ Petition WPC No.465/2015(G). The main contention of KSEB Ltd was that the O&M norms for determining the expenditure specified in the Regulations were inadequate, resulting in under recovery of its expenses.

88. Hon'ble High Court on 28-02-2018 issued the final judgment of the petition directing the Commission to pass order on the application of the petitioner KSEB Ltd for truing up of accounts for the years 2015-16, 2016-17, 2017-18 with due regards to the findings in APTEL Judgments in Appeal No. 1 and 19 of 2013 and consequential orders passed by the Commission for 2010-11 onwards, in the case of KSEB Ltd. The relevant portion of the judgment of the Hon. High Court is quoted below:

> *"In view of the submission made by learned senior counsel that the Commission would take into account Ext.P6 judgment of the APTEL while taking up the applications for truing up of accounts, I direct the 1st respondent to pass orders on the applications of the petitioner for truing up of accounts for the year 2015-16, 2016-17, and in 2017-18 with due regard to the findings in Ext.P6 judgment and the consequential orders passed by the commission for the year 2010-11 onwards in the case of petitioner."*

KSEB Ltd's Submission

89. In order to comply with the Hon'ble High Court direction, the Commission sought clarifications from KSEB Ltd. KSEB Ltd in their submission dated 28-5-2018 furnished their proposal for estimating the O&M expenses as per the Judgment of Hon.High Court. The proposal of KSEB Ltd is given below:

"*1.The Tariff Regulations, 2014 O&M norms were framed from single year value (that is 2010-11). Instead of that year, the trued up value for more recent FY 2013-14 as per order (dated 20.06.2017) may be taken as the base year, in line with Tariff policy and regulations. The pay revision provision may be deducted from the trued-up value and the balance figure be apportioned to the three SBUs based on the allocation factors as per Statement 6 adopted in the Tariff Regulations, 2014. The base values, then, may be normalized with the asset parameters adopted in the Tariff Regulations, 2014.*

5. CERC methodology may be adopted for arriving at the escalation factor. The actual increase in normalized O&M cost for the period 2009-10 to 2013-14 be analyzed and an efficiency factor of 1% be adopted on the actual O&M. This efficiency factor of 1% is deducted from the actual rate of increase in O&M for arriving at the applicable escalation factor. The escalation factor for Generation, Transmission and Distribution computed as above are Generation : 10%, Transmission: 15% and Distribution : 6.36%. The above escalation percentages are then adopted for escalating the 2013-14 values to 2015-16, 2016-17 and 2017-18.

6. *The O&M norms for Generation, Transmission and Distribution so arrived for the years 2015-16, 2016-17 and 2017-18 are given in the table below*.

KSEB Ltd's proposal for O&M Cost norms for SBUs			
Generation			
Financial Year	***2015-16***	***2016-17***	***2017-18***
	99.01	*108.91*	*119.80*
Transmission			
Financial Year	***2015-16***	***2016-17***	***2017-18***
Rs.Lakh/bay	*8.07*	*9.28*	*10.67*
Rs.Lakh/Ckt-km	*0.89*	*1.02*	*1.18*
Distribution			
Employee Cost			
Financial Year	***2015-16***	***2016-17***	***2017-18***
Rs.Lakh'000 consumer	*3.55*	*3.78*	*4.02*

Rs.Lakh/dist transformer	*0.49*	*0.52*	*0.56*
Rs.Lakh/HT line	*0.59*	*0.62*	*0.66*
Rs/unit	*0.15*	*0.16*	*0.17*
Administrative & General Expenses			
Financial Year	***2015-16***	***2016-17***	***2017-18***
Rs.Lakh'000 consumer	*0.25*	*0.26*	*0.28*
Rs.Lakh/dist transformer	*0.03*	*0.04*	*0.04*
Rs.Lakh/HT line	*0.04*	*0.04*	*0.05*
Rs/unit	*0.01*	*0.01*	*0.01*
***R&M Cost :** 3% of GFA*			

7. Pay revision expenses chargeable for the year 2015-16 may be added over and above the normative O&M cost.

8. Thus the O&M Cost thus calculated as per the above norms and the pay revision expenses actually charged for the year 2015-16 is as tabulated below:

Table-2: O&M cost proposed for 2015-16 (Rs. crore.)

Item	***O&M as per proposed norms***	***Pay revision***	***Total***	***Actual O&M expenses as per truing up petition (excl terminal liabilities)***
Generation	*99.01*	*9.61*	*108.62*	*143.90*
Transmission	*276.96*	*15.43*	*292.39*	*353.79*
Distribution				
Employee Cost	*1372.51*	*184.27*	*1556.78*	*1733.10*
A&G Cost	*95.61*		*95.61*	*149.79*
R&M Cost	*182.84*		*182.84*	*185.82*
Total	***2026.93***	***209.31***	***2236.24***	***2566.40***

90. As shown above, according to KSEB Ltd, the O&M expenses would work out to Rs.2236.24 crore to comply with the judgment of Hon. High Court. Out of this, employee cost is Rs.1957.79 crore (Rs.108.62cr +Rs.292.39 crore+Rs.1556.78 crore). In the above, working, KSEB Ltd has recalculated the norms for determination of O&M expenses considering the actual escalation in O&M expenses rather than the escalation factor used in the Regulations. KSEB Ltd also considered the provision for pay revision separately.

91. KSEB Ltd in their letter dated 28-5-2018 had also submitted that since the agreements with the recognized trade unions are to be honoured and considering the fact that substantial increase in physical assets are to be managed, the actual employee cost and terminal benefits may be allowed in the truing up.

92. Further to the above, in the letter dated 7-6-2018, KSEB Ltd further clarified that the provision for pay revision given in 2015-16 is inclusive of the shortfall in this provision in accounts for the years 2013-14 and 2014-15. The truing up petitions for 2013-14 and 2014-15 was filed on the basis of audited accounts, and since the implementation of the pay commission occurred during 2015-16, the actual impact of the pay revision was not captured in the previous years accounts. Hence, KSEB Ltd requested to consider the provision of Rs.339.00 crore made as per the accounts for 2015-16, while truing up the employee costs. If the claim of provision for pay revision of Rs.339 crore for the year 2015-16 is considered, instead of the earlier claim of Rs.209.31, the employee cost sought for the year will be Rs.2365.93 crore (2236.24 crore-209.31cr+339 crore).

93. Since the reply furnished by KSEB Ltd was not in line with the directions of APTEL, the Commission in its letter dated had again sought from KSEB Ltd the details for calculating employee cost as per the directions of APTEL in its order in Appeal No. 1 and 19 of 2013.

94. KSEB Ltd in its reply vide letter dated 10-7-2018 furnished details of employee cost booked during 2015-16 for employees recruited after 1-4-2009. KSEB Ltd clarified that the salaries and allowances actually disbursed to employees recruited after 1-4-2009 (8899 nos in total for March 2016), were extracted from the HRIS software and amounted to Rs.288.10 crore.

95. The Commission notes that the employee strength in 2016 was 32440 employees and the no. of employees exceeding at the 2008-09 level (27175) was 5265nos. The balance 3634 employees (8899-5265) were replacements for the retired employees. Thus the pro-rata employee expenses including other expense attributable to 5265 employees is Rs.170.45 crore.

96. KSEB Ltd further stated that Hon. APTEL has ordered to allow pay and allowances for staff strength at least for the strength a on 1-4-2009 and it is not a ceiling limit.

Further, revision of other allowances forms an integral part of the agreements reached between the management and trade unions as envisaged in the APTEL Order in Appeal 1 and 19 of 2013.

97. In respect of pay revision expenses, KSEB Ltd in their additional submissions dated 21-6-2018 furnished that of the provision of Rs.339 crore for pay revision, Rs.31.93 crore is attributable to employees recruited after 2009.

98. Thus according to KSEB Ltd, the cost attributable to increased staff strength in 2016 over 2009 levels of 27175 employees, inclusive of pay revision benefits works out to Rs.202.38 crore (Rs.170.45 crore+Rs.31.93 crore). KSEB Ltd did not provide SBU wise details of revised claim of employee expenses.

Response of Stakeholders

99. Regarding O&M expenses, the Association with the help of the data from the Annual Report on the working of State Power Utilities and Electricity Department published by the Planning Commission mentioned that the O&M expenses in Kerala is highest in the country and about 3 times the national average.

100. In the case of employee costs, the Association pointed out that the increase in employee cost from 2009 to 2016 is about 13.8%, which is abnormal. The Association made a reference on the remarks of the Additional Secretary, Finance, GoK on the pay revision and other avoidable wastage of resources. The Association argued that uncontrollable increase in employee cost needs attention and presented several indices such as no. of consumers per employee, employee cost/unit of sale, employee cost as percentage of total expenditure etc., to show that employee cost of KSEB Ltd was on the higher side. The Association also reiterated the observations made by the Commission previously on the employee cost and requested the Commission to give directive to KSEB Ltd to have comprehensive look at the internal reform measures required and to implement the same in the time bound manner.

Provisions in the Regulations

101. Regulations treat O&M expenses as licensee's controllable expenses and allow it based on norms. The O&M expenses as per the Regulations exclude terminal liabilities since the same is provided separately under Regulation 31.

102. In the case of SBU-D, relevant provision of the Regulation specifying the O&M expenses is shown below:

<u>Annexure-IX</u>
<u>O&M norms for the distribution business/licensees</u>

Table 1: O&M norms for distribution business of KSEB Limited

O&M Expenses	*FY 2015-16*	*FY 2016-17*	*FY 2017-18*
Employee expenses			
Rs lakh/'000 consumers	*2.40*	*2.54*	*2.69*
Rs. lakh/distribution transformer	*0.33*	*0.35*	*0.37*
Rs. lakh per km of HT line	*0.40*	*0.42*	*0.44*
Rs/unit of sales	*0.10*	*0.11*	*0.11*

***Explanation**: The O&M expenses for any year of the control period shall be allowed by multiplying the O&M norms for that year with the actual number of consumers, distribution transformers, km of HT line and sales for the previous year, i.e., the O&M expenses for FY 2015-16 shall be allowed by multiplying the O&M norms for FY 2015-16 with the actual number of consumers, distribution transformers, km of HT line and sales for FY 2014-15*.

Analysis and decision of the Commission

103. KSEB Ltd in their truing up petition has sought Rs.2669.83 crore towards employee expenses of SBU-D, including Rs.926.79 crore towards terminal liabilities. The net employee cost excluding terminal liabilities is Rs.1743.04 crore for SBU-D. As comparing this with the total employee expenses of KSEB Ltd, it works out to 83% of the total employee expenses of Rs.2100.04 crore excluding terminal benefits for KSEB Ltd.

104. As per the provisions of the Regulations, Distribution business (SBU-D) is entitled to employee expenses based on the norms fixed for the year for 2015-16. However, as mentioned in the previous paragraphs, after the notification of the Regulations, KSEB Ltd challenged the validity of the said Regulations before the Hon'ble High Court of Kerala.

105. The Hon. High Court in the judgment dated 28-2-2018, directed the Commission to pass appropriate orders on the truing up applications of KSEB Ltd for the year 2015-16 to 2017-18 with due regard to the finding of the Orders of the APTEL in Appeal Nos. 1 and 19 of 2013 and also the consequential orders on Truing up passed for the years 2010-11 onwards. Thus, the Commission is required to approve the employee cost of KSEB Ltd as per the direction of the Hon. High Court of Kerala, with reference to the Order of APTEL in Appeal Nos. 1 and 19 of 2013.

106. Hon'ble APTEL vide the common judgment dated 10-11-2014 had decided on the issues raised in the Appeal Nos. 1 of 2013 and 19 of the 2013. In their appeal before the Hon'ble APTEL, against the order dated 30-10-2012 on the truing up of accounts of KSEB for the year 2010-11 and the order dated 28-4-2012 on the ARR&ERC of KSEB for the year 2012-13 had raised a number of common issues including i) Employees cost ii) Repair and Maintenance Expenses iii) Administrative and General Expenses iv) Return on Equity v) Depreciation vi) Capitalization of Expenses

107. Paragraph 8.3 to 8.6 of judgment of Hon'ble APTEL pertains to the observation and directions regarding the employee cost and related matters, which are extracted below.

> *"8.3 We find that the State Commission in the impugned order dated 28.04.2012 has shown concern about the high employees cost and non-compliance of the directions given by the State Commission in this regard. The State Commission has noted that without a scientific study on manpower requirements, the recruitments are continuing and about 1000 persons are added every year. The State Commission has decided to benchmark employees expenses based on the base year expenses escalated at price indices. The State Commission has used FY 2008-09 as the base year since latest true-up was carried out for 2008-09. The State Commission provided 3% increase in basic pay for accounting for increments. The other components are benchmarked based on CPI/WPI indices with weightage of 70:30 for estimating the increase in employees cost. Thus, while basic pay was increased by 3% the other components of employees expenses viz. DA allowances, terminal benefits, pay revision, etc., were increased as per CPI/WPI indices with weightage of 70:30 (CPI:WPI).*
>
> *8.4 The State Commission has rightly shown concern about the high employees cost but we are not able to appreciate magnitude in the absence of a specific finding about the excess manpower and non-availability of Regulations.*

We feel that DA increase which is effected as per the Government orders have to be accounted for and allowed in the ARR as it compensates the employees for the inflation. The pay revision as per the agreements reached between the management and the unions have also to be honoured. The terminal benefits have also to be provided for.

8.5 We find that the State Commission has taken the actual expenses trued-up for FY 2008-09 as the base. The State Commission should have at least allowed the actual basic pay and DA increase, pay revision and terminal benefits over the actual base year expenses without accounting for increase in manpower from 2008-09 to 2012-13. The gratuity directed to be paid as per the judgments of the High court dated 10.03.2003 as the Division bench of the High Court had dismissed the Appeal filed against this judgment, and which were disallowed by the State Commission by order in Appeal no. 1 of 2013 should also be allowed.

8.6 Accordingly, we direct the State Commission to true-up the employees cost from FY 2010-11 to FY 2012-13, as per the above directions.

………………………………..
………………………………..

iv) The State Commission also conducted examination of Repair and Maintenance expenses of one of the Divisions of the Board through its staff in order to understand the nature of increase in Repair and Maintenance expenses and found that 36% of the expenses booked as Repair and Maintenance expenses were misclassified as revenue expenses.

9.6 In view of above findings of the State Commission, we do not incline to interfere with the findings of the State Commission. Thus, this issue is decided against the Appellant.
………………………………..
………………………………..

10.3 We find that the State Commission has allowed escalation on the basis of CPI & WPI indices with weightage of 70:30 over the actual A&G expenses for FY 2008-09. The Appellant Board has not been able to give a satisfactory reply to the substantial increase in A&G expenses.

10.4 We do not find any infirmity in the findings of the State Commission.”

108. The above judgment of Hon’ble APTEL required the Commission to allow at least the actual basic pay and DA increase, pay revision and terminal benefits over the actual base year expenses without accounting for increase in manpower from 2008-09 to 2012-13. No appeal has been made by the Commission against this judgment of 2014.

109. Regarding R&M expenses, Hon'ble APTEL has remarked that "in view of above findings of the State Commission, are not inclined to interfere with the findings of the State Commission. Thus, this issue is decided against the appellant".

110. As far as KSEB Ltd prayer regarding increase in allowing A&G expenses beyond Regulations norms, Hon'ble APTEL had stated that :

> *"we find that the State Commission has allowed escalation on the basis of CPI & WPI indexes with weightage of 70: 30 over the actual A&G expenses for FY 2008-09. The Appellant Board has not been able to give a satisfactory reply to the substantial increase in A&G expenses. We do not find any infirmity in the findings of the State Commission."*

111. A combined reading of the Judgment of the Hon.High Court and Hon. APTEL reveals that only in the case of employee costs, APTEL has directed the Commission to allow *the actual basic pay and DA thereon, pay revision and terminal benefits over the actual base year expenses for at least the level of employees during the year 2008-09.* Further, the terminal benefit paid is also required to be allowed in full. Hence, the provisions of the Regulations regarding employee costs are in fact modified to this effect. However, in the case of R&M and A&G expenses, since the decision of the Commission has been upheld no change in the provisions of the Regulations is required and shall be the criteria. Thus, the employee expense other than terminal benefits is taken up first in the subsequent sections.

112. In the light of the Orders of the APTEL in Appeal Nos 1 and 2013 and the consequential petitions for truing up for 2009-10 and 2010-11 and truing up for the years 2011-12, 2012-13 and 2013-14, the Commission has approved the employee cost of KSEB Ltd without considering the cost of increase in the manpower from 2008-09. Based on the details furnished by KSEB Ltd, the Commission has approved the employee cost for the respective year after deducting the cost of additional employees from 2008-09 level.

113. Based on above decisions, the Commission has examined the proposal of KSEB Ltd regarding the approval of employee cost under O&M expenses as per the judgment of Hon. High Court. The Commission notes that KSEB Ltd in their

proposal furnished vide clarifications dated 28-5-2018 has applied the actual increase in O&M expenses which are not in line with the orders of the APTEL. Hence, the Commission cannot consider the proposal of KSEB Ltd furnished vide letter dated 28-5-2018 as such.

114. Subsequent to this, in reply to the clarification sought by the Commission dated 6-7-2018, KSEB Ltd vide letter dated 10-7-2018 has furnished the actual disbursement of pay and allowances and pay revision expenses of the employees recruited after 2009. The total addition to the employees from 2009 was 8899. KSEB Ltd has also stated that the strength of employees in 2016 was 32440 and that in 2009 was 27175. Thus net the increase in employee strength is 5265, considering the retirements. As per the details furnished by KSEB Ltd, the total amount disbursed for 2015-16 excluding pay revision was Rs.288.10 crore for the 8899 employees recruited after 1-4-2009 and Rs.170.45 crore for the net increase in employees (5265 nos) from 2009 (32440-27175). The pay revision expenses relating to these 5265 employee is reported as Rs.31.93 crore. Thus the total disbursements including pay revision for the increase in employees of 5265 over 2009 levels is Rs.202.38 crore (Rs.170.45 crore+Rs.31.93 crore).

115. In compliance of the orders of Hon. APTEL, employee expenses without accounting for the increase in manpower from 2008-09 can be arrived at by deducting this employee expenses of the net increase in additional employees from the 2009 level, from the total employee cost for the year. Thus, as mentioned above, the total employee cost excluding terminal liabilities is Rs.2100.04 crore. As per the details furnished by KSEB Ltd in its letter dated 10-7-2018, the employee cost of additional employees is Rs.202.38 crore. Hence, the allowable expenses excluding terminal liabilities for KSEB Ltd is Rs.1897.66 crore (2100.04crore - 202.38crore). On a pro-rata basis, the employee cost for SBU-D will be 83% of Rs.1897.66 crore ie., Rs.1575.06 crore as determined on the directions of the Hon APTEL and judgment of Hon. High Court of Kerala.

Table 24

Approved employee cost for SBU-D

	SBU-D (Rs.crore)	KSEB Ltd (Rs. crore)
Employee Cost as per Accounts/Petition	2669.83	3,104.53
Less Terminal Benefits	926.79	1,004.50
Net Employee costs	**1743.04**	**2,100.04**
Net employee cost of SBU-D as a percentage	83.00%	
Net cost of additional employees as per the letter dated 10.7.2018		202.38
Balance Employee cost		1,897.65
Employee cost attributable to SBU-D (1897.65 crore x 83%)	**1,575.06**	

116. ***The Commission hereby approves the total employee cost excluding terminal liabilities for SBU-D for 2015-16 as Rs.1575.06 crore***

A&G Expenses

117. The next component of O&M expenditure is A&G expenses. The A&G expense for SBU-D inclusive of electricity duty under Section 3 of the Electricity Duty Act is Rs.261.15 crore. Of this electricity duty is Rs.111.37 crore. The details are given below:

Table 25

Split Up Details of A & G Expenses and Provisions for 2015-16

Sl no	**Particulars**	**Rs. crore**			
		SBU G	**SBU T**	**SBU D**	**TOTAL**
1	**2**	**3**	**4**	**5**	**6=(3+4+5)**
1	Rent Rates & Taxes	0.42	0.39	6.76	**7.57**
2	Insurance	0.04	0.04	0.18	**0.25**
3	Telephone & Postage, etc.	0.18	1.43	2.32	**3.93**
4	Legal charges	0.34	0.39	1.40	**2.13**
5	Audit Fees	0.01	0.02	0.16	**0.19**
6	Consultancy charges	0.03	0.01	0.05	**0.09**
7	Other Professional charges	0.35	0.36	0.41	**1.13**
8	Conveyance	3.21	5.82	47.05	**56.07**
9	Vehicle Running Expenses Truck / Delivery Van	0.04	0.16	0.63	**0.83**
10	Vehicle Hiring Expenses Truck / Delivery Van	0.00	0.13	2.28	**2.41**
1	Electricity charges	0.10	0.06	6.42	**6.57**
12	Water charges	0.00	0.08	0.28	**0.37**

Sl no	Particulars	Rs. crore			
		SBU G	SBU T	SBU D	TOTAL
13	Entertainment	0.06	0.11	0.39	**0.56**
14	Fees & subscription	0.33	0.21	0.08	**0.63**
15	Printing & Stationery	0.36	0.90	9.45	**10.71**
16	Advertisements, exhibition publicity	0.32	0.32	0.66	**1.30**
17	Contribution/Donations	0.32	0.35	0.53	**1.20**
18	Training expenses	0.72	0.03	1.83	**2.58**
19	Miscellaneous Expenses	0.51	0.60	3.94	**5.06**
20	DSM activities	0.00	0.00	0.01	**0.01**
21	SRPC expenses	0.12	0.13	0.12	**0.38**
22	Sports and related activities	0.11	0.11	0.14	**0.36**
23	Freight	0.41	3.46	6.24	**10.11**
24	Purchase Related Advertisement Expenses	0.51	0.58	0.37	**1.46**
25	Bank Charges	0.00	0.00	0.06	**0.06**
26	Office Expenses (Operating Expenses)	5.77	37.35	48.73	**91.84**
27	License Fee and other related fee	1.30	1.24	1.26	**3.80**
28	Cost of services procured	0.00	0.00	0.00	**0.00**
29	Outsourcing of metering and billing system	0.00	0.00	0.00	**0.00**
30	V-sat, Internet and related charges	0.00	0.06	0.08	**0.14**
31	Security arrangements	0.00	0.00	0.00	**0.00**
32	Books & periodicals	0.02	0.01	0.03	**0.05**
33	Computer Stationery	0.00	0.00	0.00	**0.00**
34	Others	0.34	0.06	0.55	**0.95**
	Others- Other Purchase related Expenses	0.55	1.25	1.53	**3.33**
	Others - Expenditure in connection with distribution of LED	3.00	2.78	7.11	**12.89**
35	**Gross A&G Expenses**	**19.48**	**58.41**	**151.08**	**228.96**
36	**Ele. Duty u/s 3(I), KED Act**			111.37	111.37
37	Less: Provisions utilized	1.37	1.27	1.75	4.39
38	Add: Provisions created	2.54	2.36	3.23	8.13
37	Less: Expenses Capitalized	4.33	9.10	2.78	16.21
38	**Net A&G Expenses**	**16.31**	**50.40**	**261.15**	**327.86**

118. The major component booked under A&G expenses of Rs.48.73 crore, is the payment towards contract workers employed by KSEB Ltd.

Response of Stakeholders

119. Regarding R&M expenses and A&G expenses, the Association has made their observation based on the comparison with other states and concluded that O&M expenses claimed by KSEB Ltd is not prudent. Hence, O&M expenses as per the Regulation need only be given. According to the Association, O&M expenses as per the Regulation for distribution would be Rs.1219.54 crore. Accordingly only this amount can be allowed instead of Rs.3737.16 crore sought for by KSEB Ltd.

Provisions in the Regulations

120. In the case of SBU-D, the relevant provision of the Regulation specifying the A&G expenses is shown below:

Annexure-IX
O&M norms for the distribution business/licensees

Table 1: O&M norms for distribution business of KSEB Limited

O&M Expenses	**FY 2015-16**	**FY 2016-17**	**FY 2017-18**
A&G expenses			
Rs Lakh/'000 consumers	0.21	0.22	0.23
Rs. lakh/distribution transformer	0.03	0.03	0.03
Rs. lakh per km of HT line	0.03	0.04	0.04
Rs/unit of sales	0.01	0.01	0.01

Explanation*: The O&M expenses for any year of the control period shall be allowed by multiplying the O&M norms for that year with the actual number of consumers, distribution transformers, km of HT line and sales for the previous year, i.e., the O&M expenses for FY 2015-16 shall be allowed by multiplying the O&M norms for FY 2015-16 with the actual number of consumers, distribution transformers, km of HT line and sales for FY 2014-15*.

Analysis and decision of the Commission

121. As per the Regulations, employee costs, A&G expenses and R&M expenses are provided separately. In the case of SBU-D, two components ie., employee costs and A&G expenses of O&M expenses have to be determined based on the

operational parameters such as number of consumers, length of HT lines, number of distribution transformers and energy sales. The R&M expenses is determined at 3% of the GFA at the beginning of the year.

122. The operational parameters applicable for the SBU-D for estimation of employee cost, R&M expenses and A&G expense are that of 2014-15. As per the details furnished by KSEB Ltd in the petition, the parameters are as shown below:

Table 26
Operational parameters under SBU-D for estimation of O&M expenses

Item	2014-15
No. of Consumers	11430895
No. of Distribution transformers	71199
Circuit length of HT Lines (km)	57309
Energy Sales (MU)	18426
GFA of Distribution as on 31-3-2015 (Rs. crore)	6115.79

123. The Commisison notes that KSEB Ltd has claimed Rs.261.15 crore as A&G expenses, which is inclusive of Electricity Duty of Rs.111.37 crore under Section 3(1) of the Kerala Electricity Duty Act. As per the said provision of the Act, the Electricity Duty collected from the licensee shall not be passed on to the consumers. KSEB Ltd also included Rs.12.89 crore received from distribution of LED bulbs and requested the Commission to allow the same as a one time expenses. Excluding these items, the A&G expenses as per Accounts will be Rs.136.89 crore.

124. Based on the Regulation the allowable A&G expenses are shown below***:***

Table 27
Allowable A&G expenses for 2015-16 for SBU-D

Item	Parameters in at the end of 2014-15	Unit	Norms for A&G expenses for 2015-16	Allowable A&G expenses for 2015-16 (Rs. crore)
1	2	3	5	7= (2X5)/100
No. of Consumers	11430895	Rs.lakh/000 consumers	0.21	24.00
No. of Dist. transformers	71199	Rs.lakh/Transformer	0.03	21.36
Circuit length of HT Lines (km)	57309	Rs./lakh/km	0.03	17.19
Energy Sales (MU)	18426	Rs./unit	0.01	18.43
Total				**80.98**

125. ***As per the provisions of Regulations, the Commission approves A&G expense of SBU-D as Rs.80.98 crore.***

R&M expenses

126. R&M expenses booked for SBU-D is Rs.185.82 crore. KSEB Ltd stated that the business activity of KSEB Ltd has been continuously increasing over several decades. The average growth in respect of number of consumers, their electricity requirement and fixed assets during last 10 years has been 3.65%, 7.56% and 9.61% respectively. Correspondingly the physical assets of KSEB Ltd have also increased substantially. According to KSEB Ltd, many employees for maintaining the asset and to provide quality supply, primarily in Technical areas required. Thus, more than 90% employees increase are in technical areas, which is essential to maintain the asset for providing supply quality.

127. KSEB Ltd stated that actual R&M expenses of Rs.259.76 crore indiated in the petition increased by just 6.27% over 2014-15 level of Rs.244.22 crore corresponds to inflationary trends. The 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. There were additions in Transmission and Distribution network corresponding to growth in business.

128. According to KSEB Ltd, the substantial portion of R&M expenses was incurred under line, cable network and repairs to plant and machinery by the distribution SBU. According to KSEB Ltd, this is due to the care and efforts taken to maintain the LT network and substations at 33kV, 66kV, 110 kV and 220 kV. Expenses incurred under lines, cable networks are 98% under Distribution functional area, which is required to provide supply to consumer in compliance of the KSERC Licensees (Standards of performance) Regulations and to cater to new consumers. KSEB Ltd stated that the function wise breakup of R&M expenses as a percentage of GFA for SBU-D works out to just 2.95% as given below.

Table 28
R&M expenses as a % of GFA

Particulars	GFA at the beginning of the Year 2015-16	R&M Expenses 2015-16	R&M Expenses as a % of GFA 2015-16	Functional GFA as a % of total GFA for 2015-16
	(Rs.crore)	(Rs.crore)	%	%
Generation	4033.36	26.02	0.64	27.40
Transmission	3844.45	47.91	1.23	27.07
Distribution	**6325.64**	**185.82**	**2.95**	**44.53**
Total	14203.45	259.76	1.83	100.00

129. The split up details of R&M expenses for SBU-D furnished by KSEB Ltd is given below:

Table 29
Split up details of R&M expenses

Particulars	Distribution
Plant & Machinery	4.38
Buildings	3.48
Civil Works	0.79
Hydraulic Works	0.04
Lines & Cable Networks	172.93
Vehicles	1.50
Furniture & Fixtures	0.29
Office Equipment	1.59
Gross R&M Expenses	185.00
Less: Provision utilized	2.06
Add: Provision created	2.88
Less: Expenses Capitalized	0.00
Net R&M Expenses	**185.82**

130. KSEB Ltd has thus claimed Rs.185.82 crore as R&M Expenses

Provisions in the Regulations

131. The provisions of the Regulations regarding R&M expenses is given below:

Annexure-IX
O&M norms for the distribution business/licensees
Table 1: O&M norms for distribution business of KSEB Limited

	FY 2015-16	***FY 2016-17***	***FY 2017-18***
R&M expenses			
% of opening GFA	*3%*	*3%*	*3%*

Analysis and decision of the Commission

132. The Commission has examined the claims of the licensee and the provisions of the Regulations. KSEB Ltd has claimed the expenses at actual, though Regulations provides for only for expenses as per norms.

133. KSEB Ltd has claimed Rs.185.82 crore R&M Expenses for SBU-D. As per the Regulations, R&M expenses is 3% of the GFA at the beginning of the year. The GFA of SBU-D is Rs.6115.79 crore.

Table 30
R&M expenses allowable for SBU-D 2015-16

	Rs. crore
GFA of SBU-D as on 31-3-2015	6,115.79
R&M Expenses as % of GFA	3.0%
Allowable R&M expenses	183.47

134. ***Thus, the Commission allows Rs.183.47 crore as R&M expenses of SBU-D***

Summary of O&M expenses

135. The Table below indicates KSEB Ltd claim in the petition and the Commission's approval as per the Regulations and judgment of Hon. APTEL.

Table 31
O&M expenses approved as per Regulations

	As per Petition (Rs. crore)	Approved (Rs. crore)
Employee Costs	1742.75	1,575.06
R&M Expenses	185.82	183.47
A&G expenses	261.15	80.98
Total O&M Expenses	2,189.72	1,839.52

136. ***The Commission hereby approves Rs. 1839.52 crore as the total O&M expenses of SBU-D***

Terminal benefits

137. The funding of terminal liabilities have been provided under Regulation 31 as shown below:

:

> *31. Interest on bonds issued by KSEB Limited to service the terminal liabilities of its employees. – (1) The interest on the bonds issued by KSEB Limited to service the terminal liabilities of its employees shall be allowed for recovery through tariffs, at the rates stipulated in the relevant orders issued by Government of Kerala.*
> *(2) The bonds shall be amortised at the same rate as prescribed in the Transfer Scheme notified by the Government of Kerala.*
> *(3) The funds required for repayment of the bonds issued by KSEB Limited to service the terminal liabilities of its employees shall not be allowed for recovery through tariffs.*

138. KSEB Ltd has sought approval of the actual expenses incurred towards payment of terminal liabilities in the petition. The details of terminal benefits paid to retired employees in 2015-16 for SBU-D was Rs.926.79 crore out of the total Rs.1004.50 crore for KSEB Ltd.

139. It is pertinent to point out that as per the Second Transfer Scheme, the KSEB Ltd has to establish a Master Trust for entrusting the responsibility of paying the terminal benefits to the retired employees of KSEB Ltd. In the petition KSEB Ltd has stated as follows:

> *"Even though the Trust was registered on 12.02.2015, KSEB Ltd could not issue Bonds to the Master Trust and make it fully functional during the year 2015-16 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, KSEB Ltd 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 KSEB Ltd. In view of the above submission' Hon Commission may kindly* true up terminal benefits actually disbursed during the year under employee cost."

140. Thus, KSEB Ltd has submitted that though the Master Trust was created on 12-2-2015, it could not be made operational due to non-receipt of Income tax exemption. The scheme was made fully operational only from 1-4-2017. It was also stated that the delay in operationalisation of the Master Trust was beyond the control of KSEB Ltd and hence the terminal benefits actually incurred should be fully allowed under the employee cost.

141. KSEB Ltd in their petition has claimed Rs.1004.69 crore under terminal liabilities for KSEB Ltd as a whole. Since the Master Trust was not operationalised due to the factors beyond the control of KSEB Ltd, the funding of terminal benefits out of Master Trust was not possible in line with the provisions of the Regulations. Since the Master Trust could not be formulated during the year, terminal benefits have been paid directly to the employees.

Provisions in the Government Order

142. It can be seen that the Government has issued the second transfer scheme order vide G.O.(P) No.46/2013/PD dated 31-10-2013 and subsequently amended the same vide G.O.(P) No.3/2015/PD dated 28-1-2015. In the said Order, clause 6 provides for the transfer of personnel by the State and sub-clause 8 provides for the arrangement for payment of pension. The relevant portions of the scheme are quoted below:

> *Sub clause 8 of clause 6:*
>
> *"(8) The State Government shall make appropriate arrangements in respect of funding the terminal benefits to the extent they are unfunded on the date of the transfer of the personnel from the erstwhile Boar or KSEB as mention in sub clause (9) of the clause 6 of this scheme. As per actuarial valuation carried out by registered valuer, the net present value of unfunded liability is approximately Rs.12419 crore (Rupees twelve thousand four hundred and nineteen crores) as on the date of re-gesting ie., 31-10-2013.* ***Till such time arrangements are made the Transferee and the State Government shall be jointly and severally responsible to duly make such payments to the existing pensioners as well as the personnel who retire after the date of transfer but before the arrangements are put in place****. ...."*
> *[emphasis added]*

143. Hence, the funding of terminal liabilities till the formation of the Master Trust is jointly and severally the responsibility of KSEB Ltd and the State Government. The amount of contribution from the State Government has not been specified yet in the G.O dated 28-1-2015

Analysis and decision of the Commission

144. The Commission has carefully examined the issue of terminal benefits. As per the APTEL Order in Appeal Nos. 1 and 19 of 2013, the terminal benefits have to be provided for. The fact that the Master Trust could not be operationalised due to the factors beyond the control of KSEB Ltd. Hence, funding of terminal benefits out of Master Trust was not possible in line with the provisions of the Regulations.

145. The provisions of the above G.O dated 28-1-2015 requires the funding of terminal benefits till the formation of the Master Trust (ie., from 01-11-2013 till formation of the Trust 1-4-2017) to be jointly and severally the responsibility of KSEB Ltd and the State Government. However, the amount of contribution from the State Government is not specified therein.

146. KSEB Ltd in their truing up petition has indicated Rs.1004.50 crore as the actual pension and terminal benefit liabilities incurred during the year. They have further stated that this liability has not been factored into the ARR projection, considering that the Master Trust formation would be materialized and the liabilities transferred to that Trust.

147. The Commission in the ARR&ERC order for 2014-15 had allowed an amount of Rs.814.40 crore for funding the terminal benefits. Further, in *the suo motu* order on determination of tariff for the years 2016-17 and 2017-18 dated 17-4-2017 also the same amount was allowed in anticipation of the operalisation of the Master Trust. However, as pointed out by KSEB Ltd, Master Trust could not be operationalised during this period owing to the issues regarding income tax. In this context it is to be pointed out that as per the G.O, dated 28-1-2015, the terminal benefits till the formation of the Trust shall be shared jointly and severally between the Government and KSEB Ltd.

148. In their objections, the Association has pointed out that interest on Master Trust ie., Rs.814.40 crore can only to be allowed under terminal benefits. Considering the Orders of the Hon. APTEL and Hon. High Court the Commission allows Rs.1004.50 crore as terminal benefits. However, in the Truing up, amount equivalent to the interest on Master Trust ie., Rs.814.40 crore is approved for 2015-16 as has been done in the ARR&ERC order for 2014-15, Order on *suo motu* determination of Tariff dated 27-4-2017, and as suggested by the Association. KSEB Ltd shall make up the balance amount of Rs.190.09 crore

from the State Government either adjustment of electricity duty retained or through subvention as per the direction of the Government. This shall comply with the G.O provisions and fulfill the obligation of the Government in funding terminal benefits during the interim period till the Master Trust is formed.

149. Out of the total Rs.814.40 crore allowed for funding the terminal benefits from the funds of KSEB Ltd for the year 2015-16, the apportionment of this amount is made in the same ratio as given in the petition, which amounts to Rs.926.79 crore for SBU-D. Of this, Rs.175.39 crore is to be got reimbursed from the Government as shown below:

Table 32
Terminal liabilities approved for SBU-D for 2015-16

	As per Petition (Rs.crore)	Approved (Rs.crore)
KSEB Ltd		
Terminal benefits as per petition	1,004.50	1,004.50
Contribution of Government		190.10
Contribution through Truing up		814.40
SBU-D	1,004.50	1,004.50
Share of Terminal benefits for SBU-D	926.79	926.79
Contribution of Government		175.39
Contribution through Truing up		751.40
Total Terminal benefits for SBU-D	**926.79**	**926.79**

150. ***As shown above, the terminal benefits of Rs.926.79 crore is approved for SBU-D and out of this Rs.751.40 crore is allowed in the truing up and the balance is to be met from the contribution from the Government***.

Interest and financing charges

151. Interest charges include, interest on long term loans, interest on GPF, interest on security deposits, interest on over draft, and other interest charges. As per the petition, the interest and financing charges claimed for SBU-D were Rs.741.19 crore. Each of the items are considered below:

Interest on Long term loans

152. The interest on long term loans claimed is based on the apportionment of loans to three SBUs. KSEB Ltd has not given SBU wise details of apportionment of

interest and financing charges. In the clarification given as per the letter dated 28-5-2018, KSEB Ltd has furnished the SBU wise apportionment of secured loans and unsecured loans. As per this, of the total outstanding loans of Rs.3763.51 crore for the KSEB Ltd as a whole as at the end of 31-3-2016, the loans assigned to SBU-D is Rs.1811.12 crore. The interest charges assigned for SBU-D was Rs.307.46 crore out of Rs.403.32 crore for KSEB Ltd.

Objection of stakeholders

153. The Association had objected to the claims of KSEB Ltd citing the provision of the Regulations. The Association pointed out that interest on CWIP should not be allowed and accordingly an amount of Rs.226.70 crore on account of interest for CWIP of Rs.2109 crore at a rate of Rs.10.5% should be disallowed from the interest on long term loans. Further, as per the provisions of clause 38, 57 and 71, of the Regulations, the Commission should carry out a prudence check on the capital cost for approval of interest charges.

Provisions in the Regulations

154. Regarding approving the interest charges, it is to be mentioned that Regulations provide detailed procedure for the approval of interest and financing charges. Regulation 27 provides for the debt : equity ratio and the relevant portions are given below:

"27. Debt-equity ratio. – (1) For the purpose of determination of tariff, debt-equity ratio as on date of commercial operation in the case of a new generating station, transmission line and distribution line or substation commissioned or capacity expanded on or after the First day of April 2015, shall be 70:30 of the capital cost approved by the Commission:

Provided that the debt-equity ratio shall be applied only to the balance of such approved capital cost after deducting the financial support provided through consumer contribution, deposit work, capital subsidy or grant, if any.

(2) Where equity employed is more than thirty percent of the approved capital cost, the amount of equity for the purpose of tariff shall be limited to thirty percent and the balance amount shall be considered as normative loan and interest on the same may be allowed at the weighted average rate of interest of the actual loan portfolio.

(3) Where actual equity employed is less than thirty percent of the approved capital cost, the actual equity shall be considered.

(4) If any fixed asset is capitalised on account of capital expenditure incurred prior to the First day of April, 2015, debt-equity ratio allowed by the Commission for determination of tariff for the period ending the Thirty First day of March, 2015 shall be considered.

..
.....................................”

Regulation 30 provides for interest and financing charges, which is given below:

***30. Interest and finance charges**. – (1) (a) The loans arrived at in the manner indicated in regulation 27 shall be considered as gross normative loan for calculation of interest on loan.*

(b) The interest and finance charges on capital works in progress shall be excluded from such consideration.

(c) In the case of retirement or replacement of assets, the loan amount approved by the Commission shall be reduced to the extent of outstanding loan component of the original cost of the retired or replaced assets, based on documentary evidence.

(2) The normative loan outstanding as on the First day of April, 2015, shall be worked out by deducting the amount of cumulative repayment as approved by the Commission up to the Thirty First day of March, 2015, from the normative loan.

(3) Notwithstanding any moratorium period availed by the generating business/company or the transmission business/licensee or the distribution business/licensee, the repayment of loan shall be considered from the first financial year of commercial operation of the project and shall be equal to the depreciation allowed for that financial year.

(4) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each financial year applicable to the generating business/company or the transmission business/licensee or the distribution business/licensee or state load despatch centre:

Provided that if there is no actual loan for a particular financial year but normative loan is still outstanding, the weighted average rate of interest on the last available loan shall be considered:

Provided further that if the regulated business of the generating business/company or the transmission business/licensee or the distribution business/licensee or state load despatch centre does not have actual loan, then interest shall be allowed at the base rate.

(5) The interest on loan shall be calculated on the normative average loan for the financial year by applying the weighted average rate of interest.

(6) The generating business/company or the transmission business/licensee or the distribution business/licensee or the state load despatch centre, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne

by the beneficiaries and any benefit from such refinancing shall be shared in the ratio 1:1 among,-

(i) the generating business/company and the persons sharing the capacity charge; or

(ii) transmission business/licensee and long-term intra-State open access customers including distribution business/licensee; or

(iii) distribution business/licensee and consumers.

(7) The changes to the terms and conditions of the loans during the financial year, if any, shall be effective from the date of coming into force of such changes.

(8) Interest shall be allowed on the amount held as security deposit in cash from users of the transmission system or distribution system and consumers at the bank rate as on the First day of April of the financial year in which the application is filed:

Provided that interest on security deposit actually paid to the users of the transmission system or distribution system and to the consumers during the financial year, shall be considered at the time of truing up for the financial year."

Analysis and decision of the Commission

155. The Commission has examined the claims of KSEB Ltd and the objections of the stakeholders in detail. The Commission notes that there is difference regarding interest and financing charges among the SBUs as per the petition and as per the annual accounts. For example, interest charges for SBU-D as per the accounts is Rs.755.45 crore and as per the petition is Rs.741.19 crore. KSEB Ltd has stated that the reason for divergence in the figures is mostly on account of the assumptions used in the apportionment of SBU wise details. The Commission also sought details of sources of funding of opening level of CWIP vide letter dated 31-7-2018. KSEB Ltd furnished the details vide letters dated 3-8-2018 and 13-8-2018 on the closing level of CWIP as on 31-3-2016 and the details on the opening levels were not furnished. Accordingly, the Commission could not use the details furnished by KSEB Ltd regarding CWIP.

Interest on long term loans

156. Concurrent reading of the provisions of Regulation 27 and 30 shows that interest charges applicable to assets created upto 1-4-2015 and after 1-4-2015 (ie., assets addition during the year 2015-16) shall be provided. Proviso to Regulation 27(1) provides that funds received in the form of grants and contributions are to

be reduced from the fund requirements. Regulation 30(1) (b) specifies that, interest charges for capital works in progress are not allowable. Further, in the case of assets during construction, the same is to be treated as part of fixed assets only when the assets are put into use.

157. Hence, the Regulation provides for treatment of loans and interest charges thereon on a normative basis. The normative loan amount required to meet the value of fixed assets as on 1-4-2015 (ie., the date of effect of control period), in the books of the licensee is taken as the funding requirement. Further, the Regulation requires that funds received in the form of grants and contributions to be reduced from the fund requirements. Similarly, for operational purposes, interest on working capital is also provided separately on normative basis. In the case of assets during construction, the same is to be treated as part of fixed assets only when the assets are put into use. Thus, all the funding requirements are considered normatively, so that the consumers are required to pay only what is ought to be funded.

158. Rate of interest for the loan is specified in Regulation 30(4). As per this, the rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio of the each financial year applicable to the Generating business, transmission business or distribution business as the case may be. Based on this, the weighted average of interest for the year 2015-16 is estimated as shown below:

Table 33
Details of weighted average rate of interest for 2015-16

		Rs. crore
1	Opening balance of loan as on 1-4-2015	3,699.35
2	Closing balance of loan 31-3-2016	3,753.51
3=(1+2)/2	Average loan	3726.43
4	Interest charges for 2015-16	403.33
5=(4/3)%	Average rate of interest	10.82%

159. The opening level of loans as per the accounts is Rs.3699.35 crore and closing balance is Rs.3753.51 crore. The interest charges for loans for the year 2015-16 as per the accounts is Rs.403.33 crore. Thus, the average rate of interest works out to be 10.82%.

160. The interest charges allowable for the year 2015-16 is to be worked out based on the provisions of Regulations. As per the Regulations, interest on working capital is allowed normatively and in the case of loans taken for fixed assets can be assessed based on the net fixed assets available as on 1-4-2015. As per Regulation 30(2), the normative loan outstanding as on 1-4-2015 shall be worked out by deducting the amount of cumulative repayment, which represents the depreciation allowed, as approved by the Commission as on 31-3-2015 from the normative loan. As per the details furnished by KSEB Ltd, the GFA as on 1-4-2015 is as shown below:

GFA as on 1-4-2015 as per Accounts	Rs.26608.06 crore
Value of assets enhanced as part of Transfer Scheme	Rs.11988.99 crore
GFA less enhanced value as on 1-4-2015	**Rs.14619.07 crore**

161. As per the accounts the cumulative depreciation as on 1-4-2015 is Rs.6800.04 crore. It may be noted that the Commission has not approved the entire depreciation as per the accounts in the previous years mainly on account of the fact that KSEB Ltd has accounted the depreciation as per rates notified by Government of India, whereas the Commission has allowed depreciation as per the rates notified by CERC, as provided in the Electricity Act and as well as Tariff Policy. Accordingly, from 2006-07 onwards, the Commission has disallowed the depreciation on account of the difference between the rates. The total depreciation disallowed by the Commission from 2006-07 to 2013-14 is Rs.664.79 crore. Thus, the depreciation approved by the Commission is Rs.6135.25 crore (Rs.6800.04-Rs.664.79 crore). Based on this, the Net Fixed Assets as on 1-4-2015 is Rs.8483.82 crore (Rs.14619.07 crore – Rs.6135.25 crore).

162. In order to arrive at the interest on loans, the funding pattern of Net Fixed Asset is to be arrived at. The entire Net Fixed Assets of Rs.8483.82 crore is funded out of equity, grants and contribution and loans. As per Regulation 35(b), the equity of Government of Kerala as per the transfer scheme published under Section 131 of the Act shall be considered for computation of return on equity. Thus, the amount

of equity is Rs.3499 as per the books of accounts of KSEB Ltd is to be considered as source of funding for fixed assets.

163. The balance value of net fixed assets after accounting for equity is to be treated as funded through contribution and grants as well as loans.

164. As per Regulation 35(a), the reduction of contribution from consumers, grants and such other subvention for creation of assets made as part of transfer scheme shall not reckoned while computing returns. As per the letter dated 28-5-2018, KSEB Ltd has furnished that the grants and contribution to the tune of Rs.4169.87 crore was reduced by Government of Kerala as part of transfer scheme. Further, as per the details furnished by KSEB Ltd vide letter dated 28-5-2018, the grants and contribution added from 1-11-2013 to 31-3-2015 amounting to Rs.500.13 crore (Rs.172.61 crore + 327.52 crore). Thus, the total grants and contribution as on 1-4-2015 is Rs.4670 crore as in the table below:

Table 34
Details of consumer contributions and grants

	Rs. crore
Grants & contribution as on 31-10-2013 as per the clarification dated 28-5-2018	4,169.87
Grants and contribution added from 01/11/2013 to 31/03/2014	172.61
Grants and contribution added in 2014-15	327.52
Total grants and contribution as on 1-4-2015	4670.00

165. As per the accounts, the depreciation booked by KSEB Ltd includes the depreciation on the assets created out of contribution and grants. Hence, in order to estimate the net value of grants and contribution, the depreciation booked over the years is to be deducted. As shown above, the total depreciation approved by the Commission is Rs.6135.25 crore, ie., 42% of the value of GFA. The same percentage can be applied for estimating the depreciation booked on the assets created out of contribution and grants. Thus the proportionate depreciation on the assets created out of contribution and grants is Rs.1961.40 crore (ie., 42% of Rs.4670 crore). Thus, the net value of assets created out of contributions and grants is Rs.2708.60 crore (Rs..4670 crore – Rs.1961.40 crore). Accordingly, out of the total Net Fixed Assets of Rs.8483.82 crore, the asset created out of contribution is Rs.2708.60 crore.

166. Thus, the balance value of Net Fixed Assets, after accounting for equity, contributions and grant is treated as funded through loans. Based on this, the normative loan outstanding as on 1-4-2015, on the NFA of Rs.8483.82 crore is Rs.2276.17 crore as shown below:

		Rs. crore
1	Net Fixed Assets as on 1-4-2015	8483.82
2	Equity as per accounts	3,499.05
3	Grants and Contribution (after depreciation)	2,708.60
4=(1-2+3)	Normative Loan as on 1-4-2015	2,276.17

167. The depreciation for the year 2015-16 is to be treated as the repayment. The depreciation for the year is Rs.334.87 crore. The balance loan after repayment will be Rs.1941.13 crore. The average interest charges for the normative loan for the year at the weighted average rate of interest of 10.82% is Rs.228.24 crore (Rs.2276.17 crore+1941.13 crore)/2 X 10.82%). The interest charges arrived at is apportioned based on the share of fixed assets of SBUs as shown below:

Table 35
Details of consumer contributions and grants

		SBU-G Rs. crore	SBU-T Rs. crore	SBU-D Rs. crore	KSEBLtd Rs. crore
1	GFA as on 1-4-2015	16,395.04	4,097.22	6,115.79	26,608.05
2	Less Revalued Assets	11,988.98			11,988.98
3=1-2	GFA less revalued assets as on 1-4-2015	4,406.06	4,097.22	6,115.79	14,619.07
4	% share of SBUs	30%	28%	42%	100%
5	Interest charges based on the share of GFA of SBUs.	68.47	63.91	95.86	228.24

168. ***As shown above, interest charges for existing normative loan for KSEB Ltd is Rs.228.24 crore. The same is apportioned based on the SBU wise GFA and Rs.95.86 crore is the share on this account for SBU-D.***

Interest charges for the addition of assets for 2015-16

169. Interest charges for asset added during the year are also to be considered on a normative basis. Interest charges for the addition to assets is to be regulated as per Regulation 27(1) and Regulation 30. As per the details furnished by KSEB Ltd, the total asset addition during 2015-16 is Rs.738.44 crore for KSEB Ltd as a whole and that of SBU-D is Rs.491.40 crore.

170. As per Regulation 27(1), for determination of tariff, debt: equity as on the date of commercial operation on or after first day of April 2015 shall be 70:30. As per proviso to Regulation 27(1), debit equity ratio shall be applied only to the balance of the capital cost after deducting the financial support provided through consumer contribution, deposit work, capital subsidy and grant if any. As per the details furnished by KSEB Ltd in the the letter dated 28-5-2018, the total contribution and grants received during 2015-16 is Rs.358.35 crore and that for SBU-D is Rs.346.33 crore

171. Regulation 29 and Regulation 27(3) are also applicable while estimating the normative interest on loan. As per Regulation 29, Return on equity is to be allowed on the paidup equity capital determined as per Regulation 27. Regulation 27(3) provides that in case actual equity is less than 30% of the approved capital cost, the actual equity is to be considered. As per the records available, there is no increase in paid up equity of KSEB Ltd. Thus, it can be concluded the actual equity contribution for the assets added during the year 2015-16 is nil. Hence the source of funding for addition to capital assets is assumed as from loan only.

172. Thus, the net loan for addition of assets for which is interest is to be provided for the year is Rs.380.08 crore and the interest charges at the average rate of interest of 10.82% is Rs.20.57 crore (380.08/2 * 10.82%) as shown below:

Table 36
Interest charges for addition of Assets

	KSEBLtd (Rs. crore)
Asset Addition 2015-16	738.43
Less Contribution & Grants	358.35
Balance value of assets for which interest is to be provided	380.08
Average Rate of interest	10.82%
Interest charges for addition of assets	**20.57**

173. The addition to assets for the year is Rs.738.43 crore and that of SBU-D is Rs.491.40 crore (66.55%). Hence the interest on loans for addition of the assets for SBU-D is 66.55% of Rs.20.57 crore ie., Rs.13.69 crore.

174. The total interest for loans for creation of assets for the year 2015-16 as per Regulation is shown below:

Table 37
Interest on long term loans for SBU-D for truing up for 2015-16

	SBU-D (Rs. crore)
Interest on existing loans	95.86
Interest on addition to assets	13.69
Total interest	109.55

175. ***Thus, the Commisison approves interest charges for long term loans for SBU-D as Rs.109.55 crore***

Overdrafts

176. In their petition KSEB Ltd stated that they have availed overdraft from banks to make up the shortages in cash flow in 2015-16 at an average level of Rs. 2200 crore during the year and an interest of Rs. 229.43 crore was paid on overdraft as shown below:

Table 38
Month wise overdraft balance in 2015-16

Month Beginning	Over Draft Level (Rs. crore.)	Interest (crore)
01.04.2015	2110.48	18.30
01.05.2015	2014.27	18.21
01.06.2015	1946.61	18.90
01.07.2015	2332.81	21.47
01.08.2015	2276.97	20.62
01.09.2015	2226.23	20.27
01.10.2015	2306.28	20.61
01.11.2015	2273.38	17.78
01.12.2015	1962.51	15.71
01.01.2016	2280.35	20.27
01.02.2016	2405.81	17.92
01.03.2016	2237.23	19.37
	Average = 2197.74	**229.43**

177. According to KSEB Ltd, the borrowing had to be resorted to in order to make good the financial difficulties caused by uncovered revenue gap of earlier years. A substantial part of this gap is caused by the high power purchase cost incurred in those periods. Thus the average monthly overdraft necessary was Rs. 2200 crore and corresponding interest charges was Rs. 229.43 crore. KSEB Ltd stated that, only a fraction of the un-bridged revenue gap was funded through overdrafts, owing to the prudent financial management. According to KSEB Ltd the total unrecovered revenue gap as per the orders of the Commission at the beginning of 2015-16 was Rs 2925.01 crore and trued up revenue gap till 31.03.2014 amounted to Rs.5452.15 crore. Against the substantial revenue gap, actual overdraft as on 31.03.2016 amounted to Rs.2237.23 crore, which is well within the permissible borrowings. Hence KSEB Ltd requested that the actual interest on overdraft amounting to Rs.229.43 crore may be approved in full.

Analysis and decision of the Commission

178. Regarding interest on overdrafts, the claim of KSEB Ltd is that the overdraft is availed mainly for the purpose of meeting the revenue deficit. KSEB Ltd has furnished the details of revenue gap approved over the years and corresponding overdrafts availed by KSEB Ltd for substantiating the interest on overdraft for the revenue gap.

179. The Commission is providing interest on working capital as per the provisions of the Regulations. Hence, interest on overdrafts is not considered separately and the same will be addressed while determining the carrying cost.

Interest on working capital

180. KSEB Ltd has not claimed any interest on working capital. However, as part of the clarifications dated 28-5-2018, KSEB Ltd has furnished the SBU wise estimate of interest on normative working capital. The interest on working capital for SBU D is worked by KSEB Ltd is as follows:

Table 39
Interest on Working Capital SBU-D

Sl.No.	Particulars	Normative (Rs.crore)
1	O&M expenses (as per norms)	172.39
2	Maintenance Spares (as per norms)	61.16
3	Receivables (as per norms)	1819.07
4	Less: Security deposits except security deposits held in the form of Bank Guarantee from Users	2287.31
5	Less: Cost of Power Purchase (as per norms)	528.07
6	Total Working Capital	0.00
7	Interest Rate (as per norms)	
8	Interest on Working Capital (actual)	0.00

181. As per the details furnished, there is no normative working capital and therefore interest on working capital for SBU-D has been proposed by KSEB Ltd.

Objections of stakeholders

182. Regarding interest on overdraft from the Banks, the Association pointed out that the claim of Rs.229.34 crore on interest on overdraft is not allowable as KSEB Ltd is in excess of the current liabilities over non cash assets, which shows that KSEB Ltd holds excess cash (due not paid) which is more than sufficient to cover the working capital requirements. The Association also pointed out the observations of the Commission in the order dated 20-7-2017 on the truing up of accounts of KSEB Ltd for the year 2013-14. The observations of the Commission while disallowing interest on working capital as given below:

> *"93. Hence, Commission is at a loss as to how to substantiate the interest on working capital as claimed by the KSEB Ltd. It is true that the books of accounts contain these borrowings. However KSEB has not been able to effectively prove as to why so much working capital loan has been availed. As mentioned elsewhere the concern of the Commission is that the commission has approved and provided the interest on short terms loans and long terms loans and also sufficient provisions has been built in to finance the approved revenue gap. The licensee has failed to give a detailed reasoning for such high levels of borrowings and answer the concerns raised by the commission herein, in a conclusive manner based on prudent reasoning. Hence Commission is not in a position to approve interest more than that as approved below, for the year 2013-14."*

183. Based on the above, the Association requested to disallow the claim on interest on working capital. Regarding interest on security deposit, the Association requested

the Commission to allow the actual payout of interest. Regarding interest on GPF, the Association requested the Commission to allow interest once the GPF balances and interest is reconciled as pointed out by the statutory auditors. Regarding interest on Master Trust, the Association stated that KSEB Ltd has not issued the bonds yet and the claim of terminal liabilities is to be limited to allowing Rs.814.40 crore as interest on Master Trust and the claim of terminal liabilities of Rs.1004 crore is to be disallowed

Provisions in the Regulations

184. As per the provisions of the Regulations, interest on working capital is allowed on a normative basis. The provisions regarding interest on working capital is as extracted below:

33. Interest on working capital. – (1) The generation business/company or transmission business/licensee or distribution business/licensee or the state load despatch centre shall be allowed interest on the normative level of working capital for the financial year, computed as under,-

(a) ....
(b).............................
(c).......................
(d).

(e) In the case of distribution business/licensee the working capital shall comprise of,-

(i) operation and maintenance expenses for one month; plus

(ii) cost of maintenance spares equal to one-twelfth of the sum of the book value of stores, materials and supplies at the end of each month of the financial year; plus

(iii) receivables equal to the expected revenue from sale of electricity for two months at the prevailing tariff:

Provided that the following amounts shall be reduced while computing the working capital requirement:

(i) the amount, if any, held as security deposits except the security deposits held in the form of Bank Guarantee from users of the distribution system and consumers; and

(ii) the amount equivalent to the cost of power purchase for one month, based on the cost of power purchase approved by the Commission:

Provided further that the amount equivalent to the cost of power purchased for one month corresponding to the quantity of electricity supplied from the generating station owned by the distribution licensee shall not be deducted:

Provided also that for distribution business/licensees who supply electricity to their consumers on prepaid metering system, no interest on working capital shall be allowed.

Analysis and decision of the Commission

185. The Commission has examined the objections of the Association and claims of KSEB Ltd in the light of the provisions of Regulations. According to the Association, interest on overdraft cannot be allowed as KSEB Ltd is in excess of current liabilities over the non-cash assets. However, as per the provisions of Regulations, the working capital is to be considered normatively. Hence the Commission has not considered the interest on overdraft separately as provided in the petition.

186. As per Regulation 33(1), interest on working capital is allowed on a normative basis. As per Regulation 33(2), interest on normative working capital is allowed at a rate of 2% higher than base rate applicable for the first day of April of the respective financial year.

187. In the case of distribution business, the working capital is estimated based on O&M expenses for one month and cost of maintenance of spares equal to 1/12th of the sum of the book value of stores, materials and supplies at the end of each month and receivable equal to the expected revenue from sale of electricity for two months. Further, amount held as security deposits and cost of power purchase for one month is to be deducted. Accordingly the parameters required for estimation of normative working capital requirements as per the Regulations is as shown below:

O&M expenses of SBU-D for 2015-16 including terminal benefits	- Rs.2590.92 crore
Inventories (less Fuel)	- Rs.284.37 crore
Receivables (revenue from sale of power)	- Rs.10487.71 crore
Security deposits	- Rs.1975.31 crore
Cost of power purchase	- Rs.6325.60 crore
Base rate of SBI as on 1-4-2015	- 10%

188. Based on the above, interest on working capital is estimated as shown below:

Table 40

Interest on working capital for SBU-D

	SBU-D (Rs. crore)
O&M expenses for one month	215.91
Cost of maintenance of spares 1% of historical cost	2.84
Receivables (Revenue for two months)	1,747.95
Total	**1966.70**
Less Security deposits	1,975.31
Less cost of power purchase for one month	527.13
Total Normative Working capital Requirement	**-535.74**

189. ***Since the amount of security deposit held by SBU-D is substantial and more than the normative working capital requirement, the working capital requirement is negative. Hence no interest on working capital is allowed for SBU-D***

Interest on security deposits

190. The interest on security deposit provided for 2015-16 has been Rs 167.90 crore being 8.50% of security deposits balance Rs 1975.31 crore as on 31.3.2015. Against the provision, the actual interest on Security deposit disbursed during the year 2015-16 was Rs.153.64 crore. KSEB Ltd claimed only the actual interest paid on security deposits in the petition.

Provisions in the Regulations

191. As per the Regulation 30(8), interest on security deposit is allowable only to the extent of actual disbursement of interest to the consumers. The relevant provisions are quoted below

30 (8) Interest shall be allowed on the amount held as security deposit in cash from users of the transmission system or distribution system and consumers at the bank rate as on the First day of April of the financial year in which the application is filed:

Provided that interest on security deposit actually paid to the users of the transmission system or distribution system and to the consumers *during the financial year, shall be considered at the time of truing up for the financial year.*

Analysis and decision of the Commission

192. ***KSEB Ltd has stated that an amount of Rs.153.64 crore is has been disbursed to consumers as interest on security deposit in the year 2015-16. The Commission approves same for the purpose of truing up.***

e. Interest on GPF

193. As per the audited accounts, the actual interest paid on GPF by KSEB Ltd was Rs.106.25 crore Interest rate during the year was 8.70%. The details of interest on GPF furnished as per the letter dated 28-5-2018 are as shown below:

Table 41
Details of interest on Provident Fund for SBU-D

Particulars	**SBU-D**
	(Rs. crore)
Opening balance as on 01/04/2015	1,111.06
Add : Addition	
1) Subscription/Contribution	257.93
2) Repayment of Temporary Advance	28.96
3) Interest	**89.40**
Sub Total	**376.29**
Less : Withdrawal	
1) Temporary Advance	31.56
2) NR withdrawal/Closure	227.86
Sub Total	**259.42**
Closing Balance as on 31/03/2016	1,227.92

Analysis and decision of the Commission

194. ***Regarding interest on Provident fund, the Commission allows the interest as per the accounts. The interest is at a rate of 8.7% and the amount booked is Rs.106.25 crore. Of this as shown above, for SBU-D, the interest charges is Rs.89.40 crore. The Commission approves the same for the purpose of truing up for 2015-16.***

Other interest charges

195. Other interest charges paid is inclusive of guarantee commission and bank charges. The actual expenses were Rs.0.46 crore only. Predominant portion of other charges represent guarantee charges payable to Government amounting to Rs.0.28 crore. Further, Rs.0.16 crore represents interest paid on gratuity consequent to the decision to implement the Payment of Gratuity Act in KSEB. According to KSEB Ltd interest was paid as per section 7 of the Gratuity Act, a statutory claim, which automatically becomes applicable once decided to implement the said Act in KSEB. KSEB Ltd further stated that since the differential gratuity as per Gratuity Act over DCRG as per Part III KSR was approved in line with Hon APTEL judgment dated 10.11.2014, the interest charges may also be allowed.

Analysis and decision of the Commission

196. As per the petition Other interest charges paid is inclusive of guarantee commission and bank charges. Predominant portion of other charges represent guarantee charges payable to Government amounting to Rs.0.28 crore. Further, Rs.0.16 crore represents interest paid on gratuity consequent to the decision to implement the Payment of Gratuity Act in KSEB.

197. ***The Commission approves the other interest charges of Rs.0.46 as per audited accounts.***

Summary of Interest and financing charges

198. Summary of the total interest charges allowable for SBU-D for the year 2015-16 is as shown below:

Table: 42

Interest charges allowable for SBU-D

Item	As per Petition (Rs. crore)	Approved (Rs. crore)
Interest on loan	235.38	109.55
Interest on Security Deposit	167.90	153.64
Interest on working capital	229.43	

Item	As per Petition (Rs. crore)	Approved (Rs. crore)
Interest on GPF	89.40	89.40
Incentives to consumers	1.61	1.61
Other interest Charges	0.16	0.16
Cost of finance rising	0.04	0.04
Guarantee Commission	0.28	0.28
Bank Charges	0.14	0.14
Total	741.19	**354.82**

199. ***As explained in the paragraphs above, the total interest and financing charges approved for SBU-D for the purpose of truing up is Rs.354.82 crore***. The main difference in the approved and actual interest charges is on account of interest on loan allowed on normative basis, actual interest disbursed to consumers on security deposits, and disallowance of interest on overdraft since, the requirement of working capital for for SBU-D is negative.

Depreciation

200. KSEB Ltd in the petition has claimed depreciation of Rs.236.13 crore for the year 2015-16. KSEB Ltd in the petition stated that they were accounting for depreciation as per CERC norms from 01.11.2013 and the earlier practice of charging depreciation as per the notification issued by Ministry of Power as per the provisions of the Electricity (Supply) Act 1948 had been dispensed with. It was also stated that the accounting policy with regard to depreciation is narrated in Note No. 38 Statement of Accounting policies, in the Annual statement of Account. The same is quoted below:

e. Depreciation is calculated on straight line ethod upto 90% of the original cost of assets at the rates notified by Central Electricity Regulatory Commission

f. Asset are depreciated to the extent of 90% of the cost of the asset and 10% is retained as residual value

g. Remaining depreciable value as on 31st March of the year closing after a period 12 years from the date of commercial operation shall be spread over the balance useful life of the asset.

h. *Clawback of depreciation has been provided in the accounts on the assets created out of the contribution received from consumers as on 31st March of last year.*

201. KSEB Ltd in their petition has further stated that the depreciation claimed is inclusive of assets created out of consumer contribution and grants. Hence, a sum of Rs.26.41 crore attributable to depreciation on assets created out of consumer contribution for the year 2015-16 has been considered written back as income and credited to miscellaneous receipts under other income.

Table 43
Fixed Assets and Provision for Depreciation 2015-16 as per Accounts

S. No.	Asset Group	GFA At the beginning of the year (Rs. crore)	Depreciation for the year (Rs. crore)
1	Land & land rights	16.60	0.00
2	Other Civil works	0.72	0.03
3	HV Distribution system	0.00	0.00
a)	Distribution lines	39.28	2.02
b)	Sub-station equipments	53.24	2.54
i)	Transformers	550.39	21.93
ii)	Switchgears, Control gear & Protection	0.10	0.00
iii)	Batteries	0.12	0.00
iv)	Others	0.00	0.00
4	LT Distribution system	0.00	0.00
a)	Distribution lines	4065.16	165.55
b)	Sub-station equipments	0.00	0.00
i)	Transformers	35.15	1.43
ii)	Switchgears, Control gear & Protection	0.00	0.00
iii)	Batteries	0.00	0.00
iv)	Others	22.15	2.09
5	Communication equipment	0.27	0.01
6	Meters	1187.90	34.57
7	Vehicles	6.71	0.21
8	Furniture & fixtures	21.57	0.99
9	Office Equipments	14.87	0.78
10	Assets of Partnership projects etc.	0.00	0.00

11	Capital spares of HV & LT transmission	0.00	0.00
12	Assets taken over & pending final valuation	0.00	0.00
13	IT Equipments	58.67	2.71
	Buildings	42.82	0.71
15	Any other items (Hydrualic Works)	0.07	0.54
16	**Gross Asset (Total (1) to (15))**	**6115.80**	**236.13**

Objections of the stakeholders

202. The Association pointed out that in the case of depreciation, the amount should be calculated as per the rates given in the Regulation. The Association stated that the rate of depreciation claimed as per the accounts is higher than provided in the Regulation. The Association estimated the depreciation and argued that Rs.326.37 crore as against a claim of Rs.491.23 crore for KSEB Ltd as a whole only need to be allowed as depreciation.

203. KSEB Ltd has stated that the depreciation claimed was as per the provisions of the Regulations. In reply to the statutory auditors, KSEB Ltd has stated that "*depreciation is being calculated by taking the assets as on 31-3-1999 as a whole block and the depreciation for each year's addition in fixed asset is being calculated separately. Each year addition in fixed assets is correctly tallying with asset addition as per the statement of fixed assets…"* . Thus, it can be observed that depreciation for the assets before 31-3-1999 taken as a block and it is not disclosed properly.

Provisions on the Regulations

204. Regulation 28 deals with the determination of depreciation for the purpose of tariff. The relevant provisions are reproduced below:

28. Depreciation. – *(1) The value base for the purpose of depreciation shall be the original capital cost of the asset approved by the Commission:*

Provided that no depreciation shall be allowed on revaluation reserve created on account of revaluation of assets.

(2) The generation business/company or transmission business/licensee or distribution business/licensee shall be permitted to recover depreciation on the value of fixed assets used in their respective business, computed in the following manner:-

(a) depreciation shall be computed annually based on the straight line method at the rates specified in the Annexure-I to these Regulations for the first twelve financial years from the date of commercial operation;

(b) the remaining depreciable value as on the Thirty First day of March of the financial year ending after a period of twelve financial years from the date of commercial operation shall be spread over the balance useful life of the assets as specified in Annexure- I;

(c) the generating business/company or transmission business / licensee or distribution business/licensee, shall submit all such details and documentary evidence, as may be required under these Regulations and as stipulated by the Commission from time to time, to substantiate the above claims;

(d) the salvage value of the asset shall be ten per cent of the allowable capital cost approved by the Commission and depreciation shall be a maximum of ninety per cent of the approved capital cost of the asset.

(3) The generating business/company or transmission business/licensee or distribution business/licensee shall be allowed to claim depreciation to the extent of financial contribution in the form of loan and equity, including the loan and equity contribution, provided by them:

Provided that depreciation shall not be allowed on assets funded through consumer contribution, deposit works, capital subsidies and grants.

(4) In the case of existing assets, the balance depreciable value as on the First day of April, 2015, shall be worked out by deducting the cumulative depreciation as approved by the Commission up to the Thirty First day of March, 2015, from the gross depreciable value of the assets.

205. As noted above, the depreciation shall be as per the rates provided in the Regulations, which is same as the depreciation rates notified by CERC. The depreciation for an asset for first 12 years is to be at rates notified and the balance value if any shall be spread over the useful life of the assets. Further, depreciation shall not be applicable to the assets created out of consumer contribution and grants. Further Regulation 35 provides for the principles to be adopted for treating the transfer scheme under Section 131 of the Act.

35. Principles for adoption of Transfer Scheme under Section 131 of the Act.- The Commission may, for the purpose of approval of aggregate revenue *requirements and determination of tariff, adopt the changes in the balance sheet, due to the re-organisation of the erstwhile Kerala State Electricity Board as per the provisions of the Transfer Scheme published by the Kerala State Government under Section 131 of the Act, subject to the following principles,-*

(a) Increase in the value of assets consequent to the revaluation of assets shall not qualify for computation of depreciation or of return on net fixed assets;

(b) The equity of Government of Kerala as per the Transfer Scheme published under Section 131 of the Act will be considered for computation of return on equity.

(c) The reduction of the contribution from consumers, grants and such other subventions for creation of assets, made as a part of Transfer Scheme, shall not be reckoned while computing depreciation or return on net fixed assets;

Analysis and Decision of the Commission

206. The Commission has examined the claims of KSEB Ltd and objections of stakeholders. KSEB Ltd has claimed Rs.491.20 crore as depreciation for KSEB Ltd as a whole and out of this, Rs. 236.13 crore for SBU-D. According to the Association, the depreciation rates used by KSEB Ltd are higher than as per the provisions of the Regulations. Further they have estimated the depreciation to be provided as Rs.326.37 crore only. In this regard, the Commission notes that KSEB Ltd in their annual accounts has stated policy of providing depreciation as per the provisions of CERC Regulations, hence the comments of the Association is not acceptable.

207. As per the provisions of Regulations depreciation for revalued assets are not allowed. Further, the reduction in contribution from consumers and grants made as part of the transfer scheme shall not be considered for computing depreciation.

208. KSEB Ltd in their accounting policy mentioned that depreciation is calculated on straight line method upto 90% of the original cost of assets at the rates notified by CERC and the balance 10% is retained as residual value. The remaining depreciable value as on 31st March of the year after a period of 12 years from the date of commercial operation shall be spread over the useful life of the assets. Write back of depreciation has been provided in the accounts on the assets created out of the contribution received from consumers as on 31st March of last year.

209. *The Commission has noted that several qualification have been made by the statutory auditors on the fixed assets and* on *depreciation accounting in KSEB Ltd's Annual Statements. The Commission is of the view that KSEB Ltd has to address the these issues on a urgent basis so as to bring clarifity and to clear the audit comments in a time bound manner.*

210. The Commission has sought the details of contribution and grants in the books of erstwhile KSEB as on the date of transfer, which were removed while effecting the transfer scheme. KSEB Ltd has furnished these details vide letter dated 28-5-2015.

211. In the said letter, KSEB Ltd stated that Consumer contribution and grants till 31.10.2013 as per the books of KSEB had been Rs. 4169.87 crore. It was stated that this amount was not re-vested to KSEB Ltd as per the Statutory Transfer scheme by the Government of Kerala. Further, addition to contribution and grants after the transfer scheme furnished by KSEB Ltd is as shown below:

Table 44
Addition to Consumer contribution and grants received till 2015-16

Sl No	**PERIOD**	**Opening balance (Rs.crore)**	**TOTAL (Rs. crore)**	**Claw back of depreciation (Rs. crore)**	**Closing Balance (Rs. crore)**
A	**DISTRIBUTION :**				
1	From 01/11/2013 to 31/03/2014		172.05		172.05
2	2014-15	172.05	324.18		496.22
3	2015-16	496.22	346.33	26.41	**816.14**
B	**TRANSMISSION :**				
1	From 01/11/2013 to 31/03/2014	0.00	0.56		0.56
2	2014-15	0.56	3.34		3.90
3	2015-16	3.90	12.02		**15.92**
C	**TOTAL : (A+B)**				
1	From 01/11/2013 to 31/03/2014	0.00	172.60		172.60
2	2014-15	172.60	327.52		500.12
3	2015-16	500.12	358.35	26.41	**832.06**

212. As per the provisions of the Regulations, depreciation not allowable for the contribution and grants existing before the transfer scheme. However, the depreciation provided if any, for the assets created from contribution and grants before the transfer scheme was not furnished by KSEB Ltd, but clarified that the amount of consumer contribution and grants removed by the Government at the time of transfer scheme is Rs.4169.87 crore. As provided in the Regulations, depreciation on this amount is also not allowable. Since KSEB Ltd has not furnished the depreciation for the said portion, the Commission estimated the depreciation for the said contribution and grants with the available information so that the same can be deducted from the depreciation claimed in the petition.

213. As per the details furnished by KSEB Ltd, total GFA excluding revalued assets as on 1-4-2015 is Rs.14619.08 crore. The total depreciation claimed by KSEB Ltd is Rs.491.23 crore. As per the details furnished by KSEB Ltd, the Assets added from 1-11-2013 to 31-3-2015 is Rs.1128.crore. Thus, depreciation for this newly created assets @5.28% is Rs.86.96 crore and the depreciation applicable to assets up to 1-11-2013 (on the date of transfer scheme) is Rs.404.27 crore (Rs.491.23crore – Rs.86.96 crore). The average rate of depreciation applicable for the assets (12972.08 crore = Rs.14619.08 crore – Rs.1128 crore) as on 1-11-2013 3.12% (ie., Rs.404.27crore/12972.08 crore *100). Hence the rate of depreciation applicable for the assets created out of consumer contribution and grants as on 1-11-2013 is 3.12%. As per the details furnished by KSEB Ltd, the consumer contribution and grants at the time of transfer is Rs.4169.87 crore, which is entirely attributable to SBU-D. Accordingly, the depreciation applicable to the assets created out of consumer contribution as on 1-11-2013 is Rs.129.95 crore (Rs.4169.87 * 3.12%).

214. KSEB Ltd has mentioned in the petition that total assets created out of consumer contribution and grants after 1-11-2013 is Rs.500.11 crore for KSEB Ltd and that of SBU-D is Rs.496.23 crore. The depreciation applicable to such assets as per the petition is Rs.26.41 crore for KSEB Ltd and proportionately for SBU-D is Rs.26.20 crore. Thus, the total depreciation applicable for the assets created out of contribution and grants is estimated as Rs.156.15 crore (Rs.129.95 crore+Rs.26.20 crore) for SBU -D

215. As per the petition, depreciation claimed by KSEB Ltd for SBU-D is Rs.236.13 crore. Based on the above, the depreciation allowable to SBU-D after deducting the depreciation applicable for consumer contribution and grants (Rs.156.15 crore) is Rs.79.98 crore (Rs.236.13 crore-Rs.156.15 crore) as shown below:

Table 45
Depreciation allowable for 2015-16

	Depreciation as per petition	Depreciation on assets created out of contribution and grants	Net Depreciation allowable
	Rs. crore	Rs. crore	Rs. crore
SBU-D	236.13	156.15	79.98

216. ***As against a claim of Rs.236.13 crore on account of depreciation by KSEB Ltd in their petition, the Commission allows Rs.79.98 crore as depreciation for 2015-16.***

Return on Equity

.

217. KSEB Ltd in their petition has claimed return on equity at the rate of 14% for the SBUs. As per the petition, the total equity mentioned for KSEB Ltd is Rs.3499 crore and the equity assigned for SBU-D is Rs.1555.46 crore as per accounts. However, the equity as per the petition is Rs.490 crore for SBU-D as shown below:

Table 46
Return on equity sought by KSEB Ltd

	Audited Accounts	As per the Petition	
	Rs. crore	Amount of Equity (Rs. crore	Return on equity (Rs. crore)
Generation	927.69	1,455	203.63
Transmission	1015.96	1,554	217.59
Distribution	1555.46	490	68.64
Total	3,499.05	3,499	489.86

218. Return on equity for the SBU-D claimed by KSEB Ltd in the petition is Rs.68.64 crore.

Objections of the stakeholders

219. According to the Association, return on equity shall be as per the equity base approved by APTEL in the Order dated 18-11-2015 in Appeal No.247 of 2014. Accordingly RoE of Rs.39.15 crore only to be given.

Provisions in the Regulations

220. As per Regulation 27, normative debt equity ratio is 70:30 as shown below:

> ***29. Debt-equity ratio. –*** *(1) For the purpose of determination of tariff, debt-equity ratio as on date of commercial operation in the case of a new generating station, transmission line and distribution line or substation commissioned or capacity expanded on or after the First day of April 2015, shall be 70:30 of the capital cost approved by the Commission:*
>
> *Provided that the debt-equity ratio shall be applied only to the balance of such approved capital cost after deducting the financial support provided through consumer contribution, deposit work, capital subsidy or grant, if any.*
>
> *(8) Where equity employed is more than thirty percent of the approved capital cost, the amount of equity for the purpose of tariff shall be limited to thirty percent and the balance amount shall be considered as normative loan and interest on the same may be allowed at the weighted average rate of interest of the actual loan portfolio.*
>
> *(9) Where actual equity employed is less than thirty percent of the approved capital cost, the actual equity shall be considered.*
>
> *(10) If any fixed asset is capitalised on account of capital expenditure incurred prior to the First day of April, 2015, debt-equity ratio allowed by the Commission for determination of tariff for the period ending the Thirty First day of March, 2015 shall be considered.*

221. Regulation 29 provides for return on equity. As per the said Regulation, RoE of 14% shall be allowed on the equity on the paid up equity capital as shown below:

> ***29.Return on investment. –*** *(1) Return on equity shall be computed in rupee terms, on the paid up equity capital determined in accordance with the regulation 27 and shall be allowed at the rate of fourteen percent for generating business/companies, transmission business/licensee, distribution business/licensee and state load despatch centre:*

Provided that, return on equity for generating business/company, transmission business/licensee, distribution business/licensee and state load despatch centre, shall be allowed on the amount of equity capital approved by the Commission for the assets put to use at the commencement of the financial year and on fifty percent of equity capital portion of the approved capital cost for the investment put to use during the financial year:

Provided further that at the time of truing up for the generating business/company, transmission business/licensee, distribution business/licensee and state load despatch centre, return on equity shall be allowed on pro-rata basis, taking into consideration the documentary evidence provided for the assets put to use during the financial year.

Analysis and decision of the Commission

222. The Commission has examined the details furnished by KSEB Ltd and the objections of H-EHT Association. The Association has pointed out the APTEL judgment in Appeal No.247 of 2014 and stated that equity to be considered is only Rs.283.91 crore. However, this argument is not sustainable. The Commission notes that aggrieved by the order of the APTEL dated 18.11.2015 in Appeal No.247 of 2015, KSEB Ltd has filed a second appeal before the Hon'ble Supreme Court of India, raising certain substantial questions of law. The said appeal was admitted as Civil Appeal Nos 7247-48 of 2016 and Hon'ble Supreme Court, as per order dated 29.07.2016 has ordered that:

> *"The State Commission may proceed with the matter pursuant to the remand. However, no final order may be passed without permission from the Court."*

223. It can be seen that the said judgment of Hon APTEL and subsequent appeal filed before the Hon. Supreme Court pertains to the period 2014-15. The Commission in exercise of the power vested under the Electricity Act has issued KSERC (Terms and Conditions for Determination of Tariff) Regulations for the control period 2015-16 to 2017-8. Hence, the provisions of the Regulation is applicable for the determination for the control period 2015-16 to 2017-18. As per Regulation 35(b), for the purpose of computation of return on equity, the equity of

Government of Kerala as per the transfer scheme published under Section 131 is to be followed. In this context, it is also to be mentioned that the Government has issued G.O netting of the dues of between KSEB Ltd and the Government. In the said G.O, the Government has specifically mentioned that increase in equity as per the transfer scheme is through cash infusion by the way of adjustment of electricity duty. Hence, the argument of the Association that the reduced equity of Rs.283.91 crore is to be applicable is not maintainable.

224. KSEB Ltd has apportioned the amount of equity as per the suo motu order issued by the Commission. It is seen that the method adopted by the Commission in the *suo motu* order is on account of lack of details furnished by KSEB Ltd. Since KSEB Ltd has since made available the audited accounts for 2015-16, the Commission accepted the figures given in the audited accounts for consistency. ***Accordingly, the RoE allowable for an equity of Rs.1555.40 crore in SBU-D for the year 2015-16 is Rs.217.75 crore***

Table 47
Return on equity approved for the year 2015-16.

	Amount of Equity As per Accounts (Rs.crore)	Return on equity @14% (Rs.crore)
SBU-G	927.69	129.88
SBU-T	1,015.96	142.23
SBU-D	1,555.40	217.75
Total	**3,499.05**	**489.86**

225. Thus the difference in the approved RoE compared to the amount sought in the petition is due to the Commission adopting the equity distribution as per the audited accounts.

Other expenses:

226. Other expenses included other debits and prior period expenses and income. The Other debits include Material cost Variance, R&D Expenses, Bad Debts and Misc Losses Written-off. The material cost variance represents the difference between the actual rate at which material was procured and the 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.

227. The Other debits as per accounts for KSEB Ltd as a whole is Rs.88.98 crore, which inclusive of Rs.13.06 crore under bad and doubtful debts written off/provided and demand withdrawal from consumers. Further material cost variance of Rs.71.84 crore and Rs.3.96 crore as miscellaneous losses and write offs are also included.

228. As per the details furnished in the petition, other expenses claimed for SBU-D is Rs.98.30 crore. The details are given below:

Table 48

Other expenses claimed for SBU-D

	SBU-G (Rs. crore)	SBU-T (Rs. crore)	SBU-D (Rs. crore)	KSEB Ltd (Rs. crore)
Material Cost Variance	2.21	**-1.69**	**71.33**	71.84
Research and Development Expenses	0.03	**0.02**	**0.04**	0.09
Bad and Doubtful Debts Written off / Provided/demand withdrawal of consumers	-		**13.06**	13.06
Miscellaneous Losses and Write Offs	-	**0.03**	**3.93**	3.96
Sundry Expenses	0.02		**0.00**	0.02
Total Other Debits	**2.26**	**-1.64**	**88.36**	**88.98**
Prior Period Expenses	-10.20	-4.12	**9.92**	-4.40
Total Other Expenses	-7.96	-5.76	98.28	84.58

Analysis and decision of the Commission

229. KSEB Ltd booked Rs.13.06 crore under bad debts written off and the miscellaneous write off, but no details were given. Regulation has provision for bad and doubtful debts. The relevant portion is given below:

> ***83.Provision for bad debts.–*** *(1) The Commission may allow a provision for bad and doubtful debts in the revenue requirement of the distribution business/licensee, based on past data.*
>
> *(2) The distribution business/licensee shall be allowed to provide for opening balances of receivables as per policies developed by the distribution business/licensee:*

Provided that the dues actually written off shall be reduced from the provision made against outstanding receivables and shall not be charged to the revenue account of the financial year

230. KSEB Ltd has not furnished the details of the provision made for bad and doubtful debts. In the balance sheet, the provision for bad and doubtful dues as on 31-3-2015 and as on 31-3-2016 is the same amount ie Rs.789.31 crore ie., no increase has been made in the provision for doubtful debts. On the other hand, an amount of Rs.13.06 crore has been included as write off of the bad debts. Further it is also noted that no reduction in already created provision is made during the year.

231. Another main item under the Other expenses is material cost variance which is Rs.71.84 crore. In the reply dated 28-5-2018, KSEB Ltd stated that the material cost variance is the difference between actual rate at which material is procured and the standard rate fixed for pricing the issue of material.

232. ***Considering the above, other expense of Rs. 98.28 crore as per petition is approved for the year 2015-16.***

Carrying cost for past revenue gaps

233. KSEB Ltd in the petition mentioned that borrowing has to be resorted to make good the financial difficulties caused by uncovered revenue gap of earlier years. According to KSEB Ltd the approved revenue gap as per trued up of accounts till 2013-14 was Rs.5452.15 crore as shown below:

Table 49
Un-bridged Revenue Gap till 2013-14

Year	Net Gap as per true up orders (Rs crore)	Remarks
Till 2010-11	424.11	True up order 2010-11 dated 30.11.2012.
Additional gap for 2009-10	107.90	Order dated 09.05.2017.
Additional gap for 2010-11	204.70	Order dated 19.05.2017.
ARR 2011-12	1386.97	True up order dated 16.03.2017.
ARR 2012-13	3132.97	True up order dated 0.03.2017.
ARR 2013-14	195.50	True up order dated 20.06.2017
Revenue gap till 31.03.2014	**5452.15**	

234. KSEB Ltd stated that a substantial part of the revenue gap is caused by the high power purchase cost incurred in those periods. According to KSEB Ltd, the un-bridged revenue deficit exerted considerable strain on the finances and to avoid a disastrous financial collapse, KSEB Ltd had availed OD from banks. Thus the necessity average monthly over Draft borrowing Rs. 2200 crore and corresponding interest of Rs. 229.43 crore. 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 KSEB Ltd aimed just to tide over the difficulty.

235. KSEB Ltd submitted that numerous judgments of Hon APTEL has decided that carrying cost is a legitimate claim of the utility and the interest thereon is eligible for pass through. KSEB Ltd also furnished the judgments in this regard:

(a) Appeal Nos 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) 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.

236. KSEB Ltd in the petition, had requested for approval of interest on overdrafts. According to KSEB Ltd, the total unrecovered revenue gap as per the orders of the Commission at the beginning of 2015-16 has been Rs 2925.01 crore and trued up revenue gap till 31.03.2014 amounted to Rs.5452.15 crore.

Analysis and decision of the Commission

237. In the petition, KSEB Ltd has raised claim on the interest on overdrafts mainly on the reason that according to KSEB Ltd, overdrafts were availed mainly to fund

revenue gaps on account of increase in power purchase cost. So far the Commission has allowed carrying cost for the revenue gaps in the ARR&ERC for 2014-15 for the approved revenue gap after truing up upto 2010-11 for an amount of Rs.424.11 crore. The HT-EHT Association has pointed out the observation of the Commission in the Truing up order for 2013-14 that sufficient provision has been built into finance the approved revenue gap. Accordingly the Commission did not allow carrying cost for the accumulated revenue gap for that year. Further, the Commission also noted that revenue gap is mainly on account of increase in power purchase cost, and carrying cost for such gap is not allowed considering the fact that KSEB Ltd had not filed the petition for recovery of fuel surcharge on time. As the truing up till the year 2013-14 is over, and the revenue gap till 2013-14 has been determined by the Commission, it is fair and legitimate that the claim for carrying cost is to be considered for the year 2015-16. KSEB Ltd has been carrying the approved and uncovered revenue gap of Rs.5425.15 crore till 31-3-2014 as per the regulatory accounts which needs to financed.

238. The Commission has noted the decisions of Hon. APTEL in this regard. Hon APTEL has recognized the necessity of providing carrying cost. APTEL in the judgment dated 30-7-2010 in NDPL Vs DERC reported in 2010 ELR (APTEL) (891) as mentioned as follows:

> *"45. The carrying cost is allowed based on the financial principle that whenever the recovery of cost is deferred, the financing of the gap in cash flow arranged by the distribution company from lenders and/or promoters and/or accruals, has to be paid for by way of carrying cost. This principle has been well recognized in the regulatory practices as laid down by this Tribunal as well as the Hon'ble Supreme Court. In 2007 APTEL 193, this Tribunal has held that along with the expenses, carrying cost is also to be given as legitimate expense".*

239. Hon APTEL has laid down the principle of carrying cost in its judgment dated 15.2.2011 in Appeal no. 173 of 2009 in the matter of Tata Power Company Ltd. vs. MERC. Further in the Judgment dated 13-9-2012 in Reliance Infrastructure Limited Vs MERC in Appeal No.202 and 203 of 2010, Hon APTEL has laid own the principle as given below:

11.5 On the basis of the above findings of the Tribunal we decide as under:

i) When the utility gives its projected expenditure under a head in the ARR, the Commission either accepts it or decides a lower expenditure. However, if in the true up of the ARR subsequently the Commission finds that the expenditure which was denied/reduced earlier under that head needs to be approved then carrying cost may be allowed for such additional expenditure under that particular head which was denied earlier.

ii) The utility is entitled to carrying cost on his claim of legitimate expenditure if the expenditure is:

a) accepted but recovery is deferred e.g. interest on regulatory assets,

b) claim not approved within a reasonable time, and

c) disallowed by the State Commission but subsequently allowed by the Superior authority.

11.6 If the revenue gap is as a result of routine true up carried out in the time frame specified in the Regulations and not on account of genuine expenditure denied on a claim by the appellant earlier or on account of deferred recoveries then no carrying cost may be admissible as the claim was made for the first time at the time of true up.

240. In the above background, the Commission has examined the claim for allowing carrying cost for the accumulated revenue gap. The revenue gap accumulated over the years is as shown below:

Table 50
Approved Revenue Gap over the years

Year	Net Gap as per true up (Rs crore)	Remarks
Revenue gap approved after truing up till	424.11	True up order 2010-11 dated 30.11.2012.
Additional gap approved based on Remand order for 2009-10	107.90	Remand Order on truing up dated 09.05.2017.
Additional gap approved based on Remand order for 2010-11	204.70	Remand Order on truing up dated 19.05.2017.
Total Revenue gap till 2010-11	**736.71**	
Revenue gap after Truing up for 2011-12	1,386.97	True up order for 2011-12 dated 16.03.2017.
Revenue gap after Truing up for 2012-13	3,132.97	True up order for 2012-13 dated 0.03.2017.
Revenue gap after Truing up for 2013-14	195.50	True up order for 2013-14 dated 20.06.2017
Total Approved Revenue gap till 31-3-	**5,452.15**	

241. Thus, the accumulated revenue gap at the end of 2013-14 is Rs.5452.15 crore. The revenue gap for the year 2014-15 has not been determined on account of the direction of Hon. Supreme Court regarding the truing up of accounts of KSEB Ltd for the year 2014-15. Thus at the beginning of 2015-16, the accumulated revenue gap of Rs.5452.15 crore as approved by te Commission is taken for the purpose of allowing carrying cost.

242. In this context, the Commission is also required to examine the availability of funds to KSEB Ltd for meeting the revenue gap. It is to be noted that, the Commission is allowing the interest on Provident Fund as part of the interest and financing charges. As on 31-3-2015, Rs.1320.25 crore is the outstanding balance in the GPF account. Hence while deciding the outstanding revenue gap for which carrying cost is to be allowed, the availability of funds in the form of GPF needs to be considered and reduced from this requirement.

Rate of carrying cost

243. Carrying cost is to be allowed considering the cost of funds actually incurred by the entity for funding the revenue gap. As per the details furnished by KSEB Ltd, the actual outstanding borrowing and the interest charges for the period 2015-16 is as shown below:

Table 51
Average interest on overdrafts for 2015-16

	Opening balance of loans (as on 1-4-2015) (Rs. crore)	Closing Balance (as on 31-3-2015) (Rs. crore)	Interest charges for the year (Rs. crore)	Average rate of interest (%)
Secured loans	1,699.35	1,853.51	209.30	11.78%
Unsecured loans	2,000.00	1,900.00	194.03	9.95%
Total	3,699.35	3,753.51	403.33	10.82%

244. As shown above, the average rate of interest for the borrowing for the year is 10.82%. Accordingly the carrying cost for the year 2015-16 is estimated as shown below:

Table 52
Carrying cost for the accumulated revenue gap

	Rs. crore
Revenue gap as at the end of 31-3-2014	5,452.15
Average GPF balance (1459 crore+1320.25 crore)/2	1,389.63
Balance Revenue gap for which carrying cost is to be allowed	4,062.53
Rate of interest for carrying cost	10.82%
Carrying cost for 2015-16	439.57

245. The outstanding revenue gap as at the end of 31-3-2014 as per the truing up orders is Rs.5452.15 crore. The average GPF available for the year 2015-16 is Rs.1389.63 crore. Thus, net revenue gap for which carrying cost is allowed for the year is Rs.4062.53 crore.

246. ***The average interest or the carrying cost is 10.82%. Thus the amount of carrying cost approved for the net accumulated revenue gap at the rate of 10.82% is Rs.439.57 crore.***

Norms for operation of SBU-D

247. Regulation 93 provides for the norms for operation of the Distribution licensee. The relevant portion of the Regulation is furnished below:

> *93.**Norms for operation.–** (1) (a) It shall be the duty of the distribution business/ licensee to ensure one hundred percent supply of electricity to its consumers.*
>
> *(b) The distribution business/ licensee shall make necessary and sufficient arrangements to ensure availability of electricity, either by own generation or by purchase of electricity or both, to meet the requirement of one hundred percent supply of electricity.*
>
> *(2) (a) The gross availability of electricity for supply shall be computed based on the availability of electricity to meet the base load and the peak load.*
>
> *(b) The availability of electricity to meet the base load shall be computed in accordance with the following formula:-*

Availability of electricity to meet the base load = sum of electricity in MW generated and contracted for purchase to meet the base load ÷ the base load in MW.

(c) The availability of electricity to meet the peak load shall be computed in accordance with the following formula:-

Availability of electricity to meet the peak load = sum of electricity in MW generated and contracted for purchase to meet the peak load ÷ the peak load in MW:

Provided that the peak load shall be calculated based on un-restricted demand of the distribution business/licensee.

(d) The gross availability of electricity for supply shall be computed in accordance with the following formula giving seventy five percent weightage to the availability of electricity to meet the base load and twenty five percent weightage to the availability of electricity to meet the peak load:-

Gross availability of electricity for supply = Availability of electricity to meet base load X 0.75 + Availability of electricity to meet peak load X 0.25.

(3) For every one percent under achievement by the distribution business/licensee in the gross availability of electricity for supply, the rate of return on equity or the rate of return on net fixed assets shall be reduced by 0.1 percent.

(4) The distribution business/licensee shall submit to the Commission monthly reports along with the calculation of availability of electricity for supply.

248. As part of the clarifications, the licensee has furnished the monthwise peak load and base load availability and the gross availability in the system. The details are furnished below:

Table 53
Base load and peak availability for the year 2015-16

	April	May	June	July	August	September	October	November	December	January	February	March
Availability to meet the base load												
Sum of Electricity in MW Generated + Contracted for purchase(A)	**2247**	**2051**	**1896**	**1920**	**2025**	**3405**	**2205**	**2150**	**2089**	**2039**	**2232**	**2702**
*Base load(B)	2200	2000	1830	1850	1950	3550	2150	2100	2050	2000	2200	2650
Availability of electricity to meet the base load (A/B)	102.14%	102.55%	103.61%	103.78%	103.85%	95.92%	102.56%	102.38%	101.90%	101.95%	101.45%	101.96%

Availability to meet the peak load												
Sum of Electricity in MW Generated + Contracted for purchase(A)	**3498**	**3327**	**3147**	**3265**	**3405**	**3442**	**3461**	**3578**	**3578**	**3550**	**3642**	**3934**
Peak Load(B)	3550	3400	3300	3400	3550	3500	3500	3650	3600	3550	3650	3900
Availability of electricity to meet the peak load (A/B)	98.54%	97.85%	95.36%	96.03%	95.92%	98.34%	98.89%	98.03%	99.39%	100.00%	99.78%	100.87%
Gross Availability of electricity for Supply												
Gross Availability of electricity for	101.24%	101.38%	101.55%	101.85%	101.86%	101.05%	101.64%	101.29%	101.27%	101.46%	101.04%	101.69%

249. As shown above, the gross availability is more than 100% in all the months in the year 2015-16. However, it is noted that peak load availability is comparatively lower in most of the months. Since the gross availability is more than 100%, there is no penalty is applied.

Summary of Truing up for SBU-D

250. The summary of truing up for SBU-D is as shown below:

(a) Cost of generation or transfer cost of SBU-G

The approved cost of SBU-G or transfer Cost of SBU-G to SBU-D towards generation of power is Rs.563.99 crore.

(b) Intra state Transmission charges or transfer cost of SBU-T

The approved cost of SBU-T or transfer Cost of SBU-T to SBU-D towards intra state transmission charges is Rs.666.74 crore.

(c) Cost of power purchase

The approved cost of powr purchase is Rs.6325.60 crore.

(d) Employee cost

Thee approved level of employee cost excluding terminal benefits for SBU-D is Rs.1575.06 crore

(e) R&M Expenses

The approved level of R&M expenses for SBU-D is Rs.183.47 crore

(f) A&G Expenses

The approved level of A&G expenses for SBU-D is Rs.80.98 crore

(g) Terminal benefits

The approved level of terminal benefits for SBU-D is Rs.751.42 crore

(h) Interest and finance charges

The approved level of interest and financing charges including interest on working capital for SBU-D is for Rs.354.82 crore

(i) *Carrying cost for approved revenue gap*

The carrying cost for approved revenue gap for SBU-D is Rs.439.57 crore

(j) *Depreciation :*

The approved level of depreciation for SBU-D is Rs.79.98crore

(k) *Return on equity:*

The approved level of RoE for SBU-D is Rs.217.76 crore

(l) Other expenses

The approved level of Other expenses for SBU-D is Rs. 98.28 crore

251. Thus, the total annual revenue requirements approved for the year 2015-16 for SBU-D is as shown below:

Table : 54

Aggregate Revenue Requirements allowable for SBU-D

Particulars	Petition (Rs. crore)	Approved (Rs. crore)
Revenue from sale of power	10,487.71	10,487.71
Non-Tariff income	686.27	646.97
Total Revenue	**11,173.98**	**11,134.68**
Cost of Generation	633.36	563.99
Cost of intra state transmission	751.63	666.74
Power Purchase	6,336.82	6,325.60
Employee expense	1,743.04	1,575.06
R&M expenses	185.82	183.47
A&G expenses	261.15	80.98
Terminal liabilities	926.79	751.42
Interest and financing charges	741.19	354.82
Carrying cost on Accumulated Revenue gap	-	439.57
Depreciation	236.13	79.98
Return on equity	68.64	217.75
Other expenses	98.30	98.28
Gross Expenses	**11,982.87**	**11,337.65**
Revenue gap	808.89	202.97

252. ***As shown above, the total revenue gap after truing up is Rs.202.97 crore as against Rs.808.90 crore as per the petition for truing up of accounts for 2015-16.***

CHAPTER - 6
CONSOLIDATED TRUING UP ACCOUNTS OF KSEB LTD

Introduction

1. This chapter presents the consolidated details of the truing up for 2015-16 of KSEB Ltd. A comparison of the consolidated audited accounts as well as the truing up petition is shown below:

Table 1
Summary of the Audited Accounts and Truing up the year 2015-16

Particulars	Audited Accounts (Rs.crore)	Truing up petition (Rs. crore)
Revenue from energy sale	10487.71	10487.71
Non-tariff income	759.44	739.44
Total Income	**11247.15**	**11227.15**
Generation of Power	104.25	104.25
Purchase of power	6336.82	6336.82
Interest & Finance Charges	851.41	837.15
Depreciation	491.22	491.22
Employee Cost	3292.82	3292.82
R&M Expenses	259.76	259.76
A&G Expenses	344.08	344.08
Other Expenses	84.58	84.58
Gross Expenditure	11560.44	11546.18
Return on Equity / Surplus	0.00	489.86
Total Expenditure	**11560.44**	**12036.05**
Revenue gap	**313.29**	**808.89**

2. The revenue gap as per the Petition for truing up of accounts for the year 2015-16 is Rs 808.89 crore and that of the audited accounts is Rs.313.29 crore. The difference is mainly on account of the Return on Equity and non-tariff income booked as per the truing up of accounts. The SBU wise ARR & ERC furnished in the petition is as shown below:

Table 2

SBU wise ARR&ERC for 2015-16

Item	As per True up petition			
	SBU-G	SBU-T	SBU-D	KSEB Ltd
	Rs. crore	Rs. crore	Rs. crore	Rs. crore
Revenue from Tariff	**633.37**	**751.63**	**10,487.71**	**10,487.71**
Non Tariff income	19.42	33.74	686.27	739.44
Total income	**952.79**	**785.37**	**11173.98**	**11227.15**
Cost of power Generation	104.26	-	**633.37**	**104.26**
Intra State Transmission		-	**751.62**	
Purchase of power			6,336.82	6,336.82
Employee cost	142.17	292.54	2,669.83	3,104.53
R&M expenses	26.02	47.91	185.82	259.76
A&G expenses	16.31	50.41	261.15	327.87
Interest & FC	46.32	49.63	741.19	837.15
Depreciation	122.05	133.04	236.13	491.22
RoE	203.63	217.59	68.64	489.86
Other expenses	-7.96	-5.76	98.30	84.58
Total expenses	**652.80**	**785.36**	**11,982.87**	**12,036.05**
Revenue gap	**-**	**-**	**808.89**	**808.89**

Revenue from operations

Tariff Income

3. As mentioned in the previous chapters, the income from tariff as per the petition and as approved is given below:

Table 3

Revenue from Tariffs

	Revenue	
	As per petition (Rs. crore)	Approved for truing up (Rs. crore)
SBU-G	633.36	563.99
SBU-T	751.63	666.74
SBU-D	10,487.71	10,487.71
KSEB Ltd	10,487.71	10,487.71

4. *Considering the details furnished by KSEB Ltd, the Commission approves the revenue from sale of power of KSEB Ltd as Rs.10487.71 crore for the year 2015-16.*

Non Tariff income

5. As per the details furnished in the petition, consolidated non-tariff income for the year is Rs.759.44 crore as per the audited accounts. However, as per the petition the amount is claimed Rs.739.44 crore only.

Table 4
Non Tariff Income for the year 2015-16

Particulars	2014-15 Actuals **Rs. crore**	2015 -16 Actuals **Rs. crore**
Meter Rent/Service Line Rental	143.82	90.13
Miscellaneous charges	75.82	334.61
Wheeling charges & Reactive energy charges	17.27	0.19
Interest on Staff Loans and Advances	0.44	0.27
Interest on Advances to suppliers/ Contractors	1.36	1.59
Interest from Banks	62.18	9.64
Rebate Received	131.23	123.55
Income from sale of scrap etc	40.03	49.74
Miscellaneous Receipts	61.38	147.81
RE Charges		1.80
Income from investment		0.11
TOTAL	**533.53**	**759.44**

6. The major reason for the increase in non-tariff income over 2014-15 is due to increase in miscellaneous charges from consumers and miscellaneous receipts. The miscellaneous charges for the year 2014-15 was only Rs.75 crore. However, due to the revision it increased to Rs.334.61 crore in 2015-16. Another reason for variation was on account of interest charged on KWA arrears of Rs.245.95 crore under miscellaneous charges from consumers, ordered to be adjusted by the Government of Kerala against Electricity duty and other dues payable by KSEB Ltd during the year. Government of Kerala, as per G.O.(Ms) No. 24/2015/PD dated 29.06.2015 had ordered to set off Rs.500 crore against the Electricity duty payable by KSEB Ltd. for clearing a part of arrears of electricity dues of Kerala Water Authority. Of this, KSEB Ltd apportioned the amount under various heads as furnished below:

Table 5

Details of duty set off against KWA arrears

Item	Amount (Rs crore)
Electricity charges	218.04
Duty	8.82
Supply Surcharge	1.74
Meter rent	0.01
Excess consumption penalty	20.79
Fuel surcharge	4.65
Interest	245.95
Total	**500.00**

7. Another major item is revenue from sale of scrap and other revenue. The details of proceeds from sale of scrap is given below:

Table: 6

Income from sale of scrap/tender forms

	Items	Rs. crore
1	Hire Charges From-contractors	0.01
2	Sale Of Scrap	20.63
3	Sale of LED Bulb	25.76
4	Sale Of Tender Forms	3.34
	TOTAL	**49.74**

8. After considering the details, the Commission has approved the SBU wise non-Tariff income as shown below:

Table 7

Non Tariff income approved for 2015-16

	SBU-G (Rs.crore)	SBU-T (Rs.crore)	SBU-D (Rs.crore)	Total (Rs.crore)
Total Non Tariff Income as per accounts	19.43	33.74	706.27	759.44
Less Income Tax refund wrongly booked			20.00	20.00
Less write back of Depreciation			26.41	26.41
Less Expenses towards LED bulbs distribution			12.89	12.89
Non-Tariff income approved	**19.43**	**33.74**	**646.97**	**700.14**

9. Summary of the Non-Tariff income is as shown below:

Table 8
Non-Tariff income

	As per Petition (Rs. crore)	Approved in truing up (Rs. crore)
Generation	19.43	19.43
Transmission	33.74	33.74
Distribution	686.27	646.97
Total	**739.44**	**700.14**

Total Revenue

10. The total Revenue of KSEB Ltd is the total of revenue from operations and its non-tariff income. Approved income of each SBUs is given below:

Table 9
SBU wise Total Revenue

Particulars	As per petition (Rs. crore)	Approved in Truing up (Rs. crore)
SBU-G	652.79	583.42
SBU-T	785.37	700.48
SBU-D	11,173.98	11,134.68
KSEB Ltd	11,227.15	11,187.85

11. The consolidated income of KSEB Ltd as per petition is Rs.11227.15 crore including non-tariff income of Rs.739.44 crore. The Commission has approved the revenue from sale of power of Rs.10487.71 crore as per the accounts and no-tariff income of Rs.700.14 crore adjusting Rs.39.30 crore towards income tax, government grants towards seismic stations and write back of depreciation.

Expenses of KSEB Ltd

12. As per the petition, KSEB Ltd has sought expenses under various head as shown below:

Table 10
Expenses of KSEB Ltd

Particulars	Audited Accounts (Rs.crore)	Truing up petition (Rs. crore)
Generation of Power	104.25	104.25
Purchase of power	6336.82	6336.82
Interest & Finance Charges	851.41	837.15
Depreciation	491.22	491.22
Employee Cost	3292.82	3292.82
R&M Expenses	259.76	259.76
A&G Expenses	344.08	344.08
Other Expenses	84.58	84.58
Gross Expenditure	**11560.44**	**11546.18**
Return on Equity / Surplus	0.00	489.86
Total Expenditure	**11560.44**	**12036.05**

Generation of Power

13. KSEB Ltd in their petition sought Rs.104.25 crore towards fuel cost for diesel generating stations. After analyzing the matter in detail, the Commission in Chapter 2 of this order has allowed the fuel cost of Rs.104.25 crore as per the accounts.

Cost of Generation of Power or Transfer cost of SBU-G

14. The Cost of generation of power is the transfer cost booked by SBU-G to SBU-D. After examining various expenses, the Commission has determined the transfer cost of Generation or the net cost of generation of power of SBU-G at Rs.563.99 crore as against Rs.633.36 crore sought by KSEB Ltd. Details in this regard are shown in Chapter 2 of this Order.

Cost of Intra-state Transmission or Transfer cost of SBU-T

15. The cost of intra state transmission is the transfer cost of SBU-T is the approved ARR of SBU-T. After examining various expenses, the Commission has determined the transfer cost of Transmission or the net cost of intra transmission of power of SBU-T at Rs.666.74 crore as against Rs.751.63 crore sought by KSEB Ltd. Details in this regard are shown in Chapter 3 of this Order.

Cost of purchase of power

16. The cost of power purchase including intra-state transmission charges as per the accounts is Rs.6336.82 crore. Of this, the power purchase cost is Rs.5912.38 crore and the inter-state transmission charges paid to PGCIL is Rs.424.44 crore.

17. As mentioned in Chapter 5, the Commission after examining the details has approved the cost of power purchase at Rs.6325.60 crore for the year 2015-16.

Table 11
Summary of purchase of power approved for the year 2015-16

Source	As per the Petition			Approved in Truing up		
	Energy produced/ purchased	Net energy input to KSEB T&D system	Total cost	Energy produced/ purchased	Net energy input to KSEB T&D system	Total cost
	MU	MU	Rs crore	MU	MU	Rs crore
Central Generating Stations	11471	11,049	3,596.31	11471	11,049	3,596.31
IPPS	278.	278	421.10	278	278	409.88
Traders & Others	4699	4,571	1,894.97	4699	4,571	1,894.97
Transmission charges			424.44			424.44
Grand Total Power purchase	16488	15898	6,336.82	16488	15,898	6,325.60

18. *The total power purchase cost approved for 2015-16 is Rs.6325.60 crore as against Rs.6336.82 crore as per the accounts.* The difference in the approved power purchase cost and the actual as per the accounts is on account of the reduction of Rs.11.22 crore in the fixed charges of RGCCPP due to re-negotiation by KSEB Ltd with NTPC.

O&M Expenses

19. As per the petition, the O&M expenses claimed by KSEB Ltd is Rs.3692.16 crore, which is inclusive of employee costs, repair and maintenance expenses and administration and general expenses. The O&M expense claimed as per the petition is the actual amount booked in the accounts. The details are given below:

Table 12
O&M expenses claimed for 2015-16

	Particulars	Actual (Rs crore)	Petition (Rs. crore) up
1	Employee Cost	2100.04	2100.04
2	Terminal Benefits	1004.50	1004.50
3=1+2	**Total Employee Cost**	**3,104.54**	**3,104.54**
4	Repair & Maintenance	259.76	259.76
5	Administration & General Expenses	327.87	327.87
6=3+4+5	**Total O&M Expenses**	**3,692.16**	**3,692.16**

Employee expenses

20. The total employee cost claimed by KSEB Ltd in this petition is Rs.3104.54 crore, which include terminal benefits of Rs.1004.50 crore. The employee cost excluding terminal benefits is Rs.2100.04 crore as per accounts.

21. As mentioned in chapter 2, 3 & 5, the Commission has adhered to the directions fo Hon'ble APTEL and Hon'ble High Court of Kerala and allowed Rs.1897.66 crore (Rs.2100.04 crore – Rs.202.38 crore) employee expenses excluding terminal benefits for KSEB Ltd. On a prorata basis, the employee cost allocated SBU-G, SBU-T and SBU-D as shown below:

Table 13
SBU wise Employee cost approved

	SBU-G (Rs. crore)	SBU-T (Rs. crore)	SBU-D (Rs. crore)	KSEB Ltd (Rs. crore)
Employee Cost as per Accounts/Petition	142.17	292.54	2669.83	3,104.54
Less Terminal Benefits	40.61	37.09	926.79	1,004.50
Net Employee costs	**101.56**	**255.45**	**1743.04**	**2,100.04**
Net employee cost as a percentage	4.84%	12.16%	83.00%	100%
Less Cost of additional employees as per the Order of APTEL furnished by KSEB Ltd vide letter dated 10-7-2018				202.38
Balance Employee cost				1,897.65
Employee cost attributable to SBU-G	**91.77 (4.84%)**	**230.83 (12.16%)**	**1,575.06 (83%)**	**1897.65 (100%)**

R&M Expenses

22. The total R&M expenses for KSEB Ltd as per the petition was Rs.259.75 crore. The SBU wise split up details shows that for SBU-G is Rs.26.02 crore, SBU-T isRs.47.91 crore and that of SBU-D is Rs.185.82 crore. After examining the details furnished by KSEB Ltd, the R&M expenses approved as per the norms given in the Regulations are as shown below:

Table 14
Approved R&M expenses for 2015-16

	As per Petition (Rs.crore)	Approved (Rs. crore)
SBU-G	26.02	18.73
SBU-T	47.91	65.10
SBU-D	185.82	183.47
KSEB Ltd	**259.75**	**267.30**

As per the Regulations, R&M expenses for the year is 2015-16 is to be allowed as per the norms. The R&M expenses existing generating stations of SBU-G is specified in the Regulations as Rs.18.73 crore. In the case of SBU-T, O&M expenses are specified based on the number of bays and length of transmission lines in circuit km. For SBU-D, R&M expenses are specified in the Regulations based on the parameters such as number of consumers, number of distribution transformers, length of HT lines and energy sales. Thus, based on the parameters existing at the beginning of the year, R&M costs are determined in a normative basis. Accordingly, the KSEB Ltd is eligible for R&M expenses of Rs.267.30 crore for 2015-16.

A&G Expenses

23. Another component of O&M expense is A&G expenses. The A&G expenses of Rs.327.87 crore booked is inclusive of Electricity Duty amounting to Rs.111.37 crore under Section 3 of the Kerala Electricity Duty Act 1963. The Electricity Duty is not allowable as per the provisions of the Kerala Electricity Duty Act. Another main component under A&G expenses is operating expenses, which is the payment towards contract persons employed. The A&G expenses are also allowed on a normative basis as per the parameters given in the Regulations. The SBU wise A&G expenses as per the petition and approved expenses are given below:

Table 15
A&G expenses for the year 2015-16

	As per Petition	Approved
	(crore)	(R. crore
SBU-G	16.31	4.34
SBU-T	50.41	15.48
SBU-D	261.15	80.98
KSEB Ltd	327.87	100.80

24. The A&G expenses based on the parameters as per the Regulations is Rs.100.80 crore.

O&M Expenses for New Generating Stations

25. In their truing up petition, KSEB Ltd has sought O&M expenses for the new generating stations commissioned after the notification of the Regulations. As mentioned in Chapter 2, O&M expenses approved for the new generating stations *is Rs.5.17 crore.*

Total O&M expenses

26. Total O&M expenses approved for the year 2015-16 is as shown below

Table 16
O&M Expenses approved

	SBU-G		SBU-T		SBU-D		KSEB Ltd	
Particulars	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
Employee expenses	101.55	91.77	255.45	230.83	1,743.04	1,575.06	2,100.04	1,897.67
R&M expenses	26.02	18.73	47.91	65.25	185.82	183.47	259.75	267.45
A&G expenses	16.31	4.34	50.41	15.48	261.15	80.98	327.87	100.80
O&M for new Stations	-	5.17	-	-	-	-	-	5.17
Total O&M expenses	**143.88**	**120.01**	**353.77**	**311.56**	**2,190.01**	**1,839.52**	**2,687.66**	**2,271.10**

Terminal benefits

27. KSEB Ltd in their petition stated that the terminal benefits for the year 2015-16 was Rs.1004.50 crore. The pension liability was required to be discharged from the Master Trust. Even though the Trust was registered on 12.02.2015, KSEB Ltd could not issue the Bonds to the Master Trust due to the non receipt of

approval from the Commissioner of Income Tax. This delay in operationalization of Master Trust was beyond the control of KSEB Ltd.

28. As mentioned in chapter 2, 3, & 5, the Commission has approved terminal benefits in compliance with the Hon'ble High Court of Kerala and Hon'ble APTEL orders. As per the provisions of the transfer scheme, State Government and KSEB Ltd are jointly and severally responsible for the payment of terminal benefits till the formation of Trust. Since the formation of the Master Trust did not materialize during this period, the Commission in the intermediate period had considered and allowed Rs.1004.50 crore, with Rs.814.40 crore being the liability of KSEB Ltd. The balance amount of Rs.190.10 crore shall be deemed to be the contribution of the State Government as per the G.O (P) No.3/2015/PD dated 28-1-2015 and KSEB Ltd shall take necessary steps to get the balance amount from the Government either by adjustment of electricity duty retained or through subvension as per the discretion of the Government for fulfilling the obligation of the Government in funding terminal benefits during the interim period/till the Master Trust is formed

.

29. Out of the total of Rs.814.40 crore approved for funding the terminal benefits from the funds of KSEB Ltd for the year 2015-16, **the apportionment of expenses towards each SBU is made** in proportion to their ratio of terminal benefits as per accounts are as shown below:

Table 17
Terminal benefits approved for 2015-16

	SBU-G	SBU-T	SBU-D	KSEB Ltd
	Rs. crore	Rs. crore	Rs. crore	Rs. crore
Terminal benefits as per petition	40.61	37.09	926.79	1,004.50
Terminal benefits approved	40.61	37.09	926.79	1,004.50
Percentage	4.0%	3.7%	92.3%	100.0%
Terminal benefits funded through truing up	**32.92**	**30.07**	**751.40**	**814.41**
Terminal benefits to be funded by the Government	**7.69**	**7.02**	**175.39**	**190.09**
Total Terminal benefits approved	**40.61**	**37.09**	**926.79**	**1,004.50**

Interest and financing charges

30. Interest charges include, interest on long term and short term loans, interest on GPF, interest on security deposits, interest on over draft and other interest charges. Interest and finance charges as per the accounts for KSEB Ltd as a whole was Rs.909.14 crore and Rs.851.41 crore is claimed as net interest and financing charges after capitalisation. As mentioned in chapter 2, 3 & 5, the other interest charges are approved as per accounts. A summary of interest and financing charges approved is as shown below:

Table 18

Summary of interest and financing charges

Item	SBU-G	SBU-T	SBU-D	Total
	Rs. crore	Rs. crore	Rs. crore	Rs. crore
Interest on loan	69.44	69.82	109.55	248.81
Interest on Security Deposit			153.64	153.64
Interest on working capital	7.86	8.33		16.19
Interest on GPF	5.47	11.37	89.40	106.24
Incentives to consumers			1.61	1.61
Other interest Charges			0.16	0.16
Cost of finance rising			0.04	0.04
Guarantee Commission			0.28	0.28
Bank Charges			0.14	0.14
Total	**82.77**	**89.52**	**354.82**	**527.11**

31. Total interest charges allowable for the three SBUs for the year 2015-16 is Rs.527.11 crore.

Depreciation

32. KSEB Ltd in the petition has claimed depreciation of Rs.491.22 crore for the year 2015-16 as per the CERC norms.

Table 19

SBU wise depreciation claimed for the year 2015-16

	GFA at the beginning of the year (Rs. crore)	Depreciation (Rs.crore)
SBU-G	16,395.04	122.05
SBU-T	4,097.22	133.05
SBU-D	6,115.80	236.13
Total	26,608.05	491.22

33. As per the petition, the depreciation claimed for SBU-G for the year 2015-16 is Rs.122.05 crore, of transmission is Rs.133.04 crore and of Rs. 236.13 crore

34. As per the provisions of the Regulations, no depreciation is allowed on the assets created out of contribution and grants and the write off, if any, of the consumer contribution and grants at the time of the transfer scheme is also not to be considered. Based on the provisions of the Regulations, depreciation approved for each SBU for the year 2015-16 is calculated as shown below:

Table 20
Allowable depreciation for the year 2015-16

	SBU-G	SBU-T	SBU-D	Total
	Rs. crore	Rs. crore	Rs. crore	Rs. crore
Total GFA as on 1-4-2015	4,406.06	4,097.22	6,115.79	14,619.08
Total Depreciation claimed	**122.05**	**133.05**	**236.13**	**491.22**
Consumer contribution as on 31-10-2013			4,169.88	4,169.88
Depreciation applicable for assets created out of contribution as on 31-10-2013			129.95	129.95
Consumer contribution added from 1-11-2013 to 31-3-2015		3.90	496.23	500.11
Depreciation applicable for assets created out of contribution after 31-10-2013		0.21	26.20	26.41
Total depreciation on consumer contribution and grants		0.21	156.15	156.36
Depreciation allowable excluding assets created out of contribution	122.05	132.84	79.98	334.87

35. Thus, the total depreciation allowable for the year is Rs.334.87 crore and has been apportioned among SBU-G, SBU-T and SBU-D as Rs.122.05 crore, Rs.132.84 crore and Rs.79.98 crore respectively.

Other expenses:

36. Other expenses included other debits and prior period expenses and income. The Other debits include Material cost Variance, R&D Expenses, Bad Debts and Misc Losses Written-off. The other debits as per accounts for KSEB Ltd as a whole was Rs.88.98 crore, which is inclusive of Rs.13.06 crore under bad and doubtful debts written off/provided and demand withdrawal from consumers. Further material cost variance of Rs.71.84 crore and Rs.3.96 crore as miscellaneous losses and write offs were also included.

37. As per the petition the total of Other expenses including prior period credit/charges was Rs.84.58 crore as shown below:

Table 21
SBU wise Other expenses for the year 2015-16

	SBU-G	SBU-T	SBU-D	KSEB Ltd
(Rs. crore)	(Rs. crore)	(Rs. crore)	(Rs. crore)	(Rs. crore)
Material Cost Variance	2.21	-1.69	71.33	71.84
Research and Development Expenses	0.03	0.02	0.04	0.09
Bad and Doubtful Debts Written off / Provided/demand withdrawal of consumers	-0.00		13.06	13.06
Miscellaneous Losses and Write Offs	0.00	0.03	3.93	3.96
Sundry Expenses	-0.00		0.02	0.02
Prior Period income/charges	-10.20	-4.12	9.92	-4.40
Total	-7.96	-5.76	98.30	84.58

38. Considering the details furnished by KSEB Ltd, the SBUwise other expenses approved in Chapters 2, 3, &5 are as shown below:

Table 22
Approved Other expenses

	As per Petition	Approved expenses
	(Rs.crore)	(Rs. crore)
SBU-G	-7.96	-7.96
SBU-T	-5.76	-5.76
SBU-D	98.30	98.30
KSEB Ltd	**84.58**	**84.58**

Return on equity

39. KSEB Ltd in their petition claimed return on equity of Rs.489.86 crore at the rate of 14% for the SBUs. As per the petition, the total equity mentioned for KSEB Ltd is Rs.3499 crore. The SBU wise apportionment of equity is as shown below:

Table 23
Return on equity sought by KSEB Ltd

	As per the Petition	
	Amount of Equity Rs. crore	Return on equity Rs. crore
SBU-G	1,455	203.63
SBU-T	1,554	217.59
SBU-D	490	68.64
Total	3,499	489.86

40. KSEB Ltd stated that, the methodology followed for segregation of equity among the 3 SBUs in the petition was as per the methodology followed in the Order of the Commission in the Suo motu determination of tariff dated 17-4-2017.

41. After considering the details furnished by KSEB Ltd, the Commission allowed the RoE based on the equity segregated as per the audited accounts for consistency. Further, as per Regulation 35(b), for the purpose of computation of return on equity, the equity contribution by the Government of Kerala as per the transfer scheme published under Section 131 is to be followed. Accordingly, the RoE allowable for the SBUs for the year 2015-16 is as shown below:

Table 24
Return on equity approved for the year 2015-16

	SBU-G		SBU-T		SBU-D		KSEB Ltd	
	As per Petition	Approved	As per Petition	Approved	As per Petition	Approved	As per Petition	Approved
	Rs. crore	Rs. crore	Rs. crore	Rs. crore	Rs. crore	Rs. crore	Rs. crore	Rs. crore
Equity	1,454.50	927.69	1,554.20	1,015.96	490.30	1,555.40	3,499.05	3,499.05
RoE	203.63	129.88	217.59	142.23	68.64	217.76	489.86	489.86

Carrying cost for past revenue gaps

42. KSEB Ltd in the petition mentioned that borrowing has to be resorted to make good the financial difficulties caused by uncovered revenue gap of earlier years. According to KSEB Ltd the approved revenue gap as per trued up of accounts till 2013-14 was Rs.5452.15 crore.

43. The Commission has considered the claims of KSEB Ltd and the decisions of Hon APTEL recognizing the necessity of allowing carrying cost in their various

judgments. The Commission has analysed in details the matter in the Chapter 5 of this Order and accordingly the carrying cost for the year 2015-16 is approved after deducting considering the funds available as GPF contribution for which interest has been provided:

Table 25

Carrying cost for the accumulated revenue gap

	Rs. crore
Revenue gap as at the end of 31-3-2014	5,452.15
Average GPF balance (1459 crore+1320.25 crore)/2	1,389.63
Balance Revenue gap for which carrying cost is to be allowed	4,062.53
Rate of interest for carrying cost	10.82%
Carrying cost for 2015-16	439.57

44. As seen in Table above, while revenue gap ending 31-3-2014 as per the truing up Orders was Rs.5452.15 crore, the average GPF available for 2015-16 was Rs.1389.63 crore. Thus, the net revenue gap for this period was Rs.4062.53 crore for which carrying cost of Rs.439.57 crore is allowed at the average loan interest rate of 10.82%.

Cost of excess auxiliary consumption

45. As mentioned in Chapter 2, the excess auxiliary consumption is 7.44 MU. The cost of the excess auxiliary consumption is to be deducted from the net transfer cost of generation. The same is worked out as shown below:

Table 26

Cost of excess auxiliary consumption

1	Excess Auxiliary consumption (MU)	7.44
2	Cost of hydro generation (Rs.564.51 crore - 104.25 crore)	460.26
3	Hydro Generation (6639.02-25.91MU)	6,613.11
4=(2/3)*10	Per unit cost (Rs./kWh)	0.70
5=4x1	**Cost of excess aux.consumption (Rs. crore)**	**0.52**

46. The Cost of hydro generation (Rs.564.51 crore) is the total approved costs including ROE (Rs.583.94 crore) less non-tariff income (Rs.19.43 crore) Based on the above

the net transfer cost of SBU-G after deducting the excess cost of auxiliary consumption is Rs.563.99 crore (Rs. 564.51 crore - 0.52 crore).This amount is the internal generation cost. Since the entire cost of SBU-G is transferred to SBU-D as internal generation cost, there is no revenue gap or surplus for SBU-G for 2015-16.

Summary of Income, Expenses and Revenue gap

47. As detailed in the sections above, the summary of the income and expenses after truing up is as shown below

Table 27
Summary of Truing up for KSEB Ltd for 2015-16

	SBU-G		SBU-T		SBU-D		KSEB Ltd	
Particulars	Petition (Rs.crore)	Approved (Rs.crore)	Petition (Rs.crore)	Approved (Rs.crore)	Petition (Rs.crore)	Approved (Rs.crore)	Petition (Rs.crore)	Approved (Rs.crore)
Revenue from sale of power	633.36	563.99	751.63	666.74	10,487.71	10,487.71	10,487.71	10,487.71
Non-Tariff income	19.43	19.43	33.74	33.74	686.27	646.97	739.44	700.14
Total Revenue	**652.79**	**583.42**	**785.37**	**700.48**	**11,173.98**	**11,134.68**	**11,227.15**	**11,187.85**
Cost of Generation	-	-	-	-	633.36	563.99	-	-
Cost of intra state transmission	-	-	-	-	751.63	666.74	-	-
Fuel cost	104.25	104.25	-	-	-	-	104.25	104.25
Power Purchase	-	-	-	-	6,336.82	6,325.60	6,336.82	6,325.60
Employee expense	101.55	91.77	255.45	230.83	1,743.04	1,575.06	2,100.04	1,897.67
R&M expenses	26.02	18.73	47.91	65.25	185.82	183.47	259.75	267.46
A&G expenses	16.31	4.34	50.41	15.48	261.15	80.98	327.87	100.80
O&M for new Stations	-	5.17	-	-	-	-	-	5.17
Terminal benefits	40.62	32.92	37.09	30.07	926.79	751.42	1,004.50	814.41
Interest and financing charges	46.32	82.77	49.63	89.52	741.19	354.82	837.14	527.11
Carrying cost on Accumulated Revenue gap	-	-	-	-	-	439.57	-	439.57
Depreciation	122.05	122.05	133.05	132.84	236.13	79.98	491.22	334.87
RoE	203.63	129.88	217.59	142.23	68.64	217.75	489.86	489.86
Other expenses	-7.96	-7.94	-5.76	-5.76	98.30	98.28	84.58	84.58
Less: cost of aux consumption		-0.52						-0.52
Gross Expenses	**652.79**	**583.42**	**785.37**	**700.48**	**11,982.87**	**11,337.65**	**12,036.03**	**11,390.82**
Revenue gap	**-**	**-**	**-**	**-**	**808.89**	**202.97**	**808.89**	**202.97**

48. KSEB Ltd as per their petition for truing up has furnished a revenue gap of Rs.808.89 crore as revenue gap for the year. The Commission after carefully considering the petition, clarifications and objections thereof has arrived at a revenue gap of Rs.202.97 crore.

Order of the Commission

49. The Commission after considering in detail, the petition filed by KSEB Ltd, the objections from stakeholders and other materials placed before it, arrives at a revenue gap of Rs.202.97 crore after truing up of accounts for the year 2015-16, as against the revenue gap of Rs.808.89 crore claimed by KSEB Ltd in their truing up petition

50. The petition is disposed off and orders accordingly.

Sd/-	**Sd/-**	**Sd/-**
K.Vikraman Nair	S.Venugopal	Preman Dinaraj
Member	Member	Chairman

Approved for issue

K B Santhosh Kumar
Secretary

ANNEXURE

LIST OF PERSONS ATTENDED THE PUBLIC HEARING HELD AT THIRUVANANTHAPURAM ON 30.05.2018

1. Shri.A.R.Satheesh, President, Kerala HT EHT Association
2. Shri.K.R.Radhakrishnan, CUMI
3. Shri.Pradeep. M, Manager- Electrical, HINDALCO, Kalamassery
4. Shri.Jayathilakan, Kerala State Producing Coconut
5. Shri.Saji Mathew, Asst. Manager- Electrical Engineering, MRF, Kottayam
6. Shri.Ratheesh Kumar, EICL, Manager- Electrical, Kochuveli, Trivandrum
7. Shri.Dijo Kappan
8. Shri.Jayaprakash, KSEB Ltd., W.A (CITU)
9. Shri.Shaji Sebastian, KSSIA, Ernakulam
10. Smt.Neenu Skaria, IECC
11. Shri.Viswanathan.K, BPCL- Kochi
12. Shri.Raghunathan.M.S, FEEC
13. Shri.S.Mohan Das, KSEB Ltd.
14. Shri.B.Pradeep, KSEB Ltd.
15. Shri.R.Biju, KSEB Ltd.
16. Shri.Bipin Sankar.P, KSEB Ltd.
17. Shri.Girish Kumar.V.S, KSEB Ltd.
18. Shri.Anil Rosh.T.S, KSEB Ltd.
19. Shri.Abdul Nasar, KSEB Ltd.
20. Shri.G.P.Nampoothiri, KSEB Ltd.
21. Smt.Seema.P.Nair, TRAC, KSEB Ltd.
22. Smt.Smitha Mathew, KSEB Ltd.
23. Smt.Santhini.G.P, TRAC, KSEB Ltd.
24. Smt.Latha.S.V TRAC, KSEB Ltd.
25. Shri.S.V.Sukumaran

List of persons furnished written comments

1. The President, Upabokhru Samrakshana Samithi, Antikad, Thrissur
2. Shri.M.J Chandy, Aluva
3. Dr. K. Vijayakuar, Jyothi Nilayam, Kollengode
4. Shri.Shaji Sebastain
5. Ms. Neenu Skaria, Industrial Electricity Consumers Consortium, Kochi