KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM

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

OA.No.12/2018

In the matter of Petition for the Truing up of accounts of M/s KSEB Ltd for the financial year 2016-17

Applicant Kerala State Electricity Board Ltd
Vydhyuthi Bhavanam, Pattom
Thiruvananthapuram

ORDER DATED 14/09/2018

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 2016-17 filed by the Kerala State Electricity Board Limited vide letter No.KSEB/TRAC/FO/TU/2017-18/4632 dated 25.06.2018, published a summary of this petition in the Kerala Kaumudi daily, Deshabhimani daily and The New Sunday Express daily on 08.07.2018. 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 25.07.2018 wherein 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 14th day of September, 2018

Sd/-	Sd/-
K.Vikraman Nair	**S.Venugopal**
Member	Member

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CHAPTER -1
INTRODUCTION

Background

1.1. Kerala State Electricity Board Limited (*hereinafter referred to as KSEB Ltd or licensee*) filed the petition before the Commission on 25-6-2018 for approval of truing up of accounts of the Three Strategic Business Units viz., SBU-G, SBU-T and SBU-D of KSEB Ltd for the year 2016-17, 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. 12/2018.

1.2. The copy of the petition was placed in the website of the Commission for the information of the public. Further, the Commission directed KSEB Ltd to publish the abstract of the petition for inviting comments from the public and other stakeholders KSEB Ltd had published the summary of the petition in the following dailies:

- Kerala Kaumudi daily dated 8-7-2018
- Deshabhimani daily dated 8-7-2018 and
- The New Sunday Express daily dated 8-7-2018.

1.3. It is pertinent 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.

1.4. 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 mentions 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.

1.5. 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.

1.6. 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.

1.7. 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.

1.8. With the notification of Regulations, 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.

1.9. 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 other existing regulations had 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.

1.10. 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.

1.11. In the mean time, the Commission in exercise of its powers under sub-regulation (5) of Regulation 11 read with Section 61, Section 62 and Section 64 of the Electricity Act, 2003 and in compliance of Para 8.1 (7) of the Tariff Policy, 2016 and of the order dated 11.11.2011 of the Hon'ble Appellate Tribunal for Electricity (APTEL) in OP No. 1/2011, initiated the *suo motu* proceedings to determine the tariffs applicable to the Strategic Business Unit –Generation (SBU-G), Strategic Business Unit –Transmission (SBU-T) and Strategic Business Unit –Distribution (SBU-D) of KSEB Ltd and accordingly the Commission had on 17-4-2017 issued a *suo motu* Order on determination of tariff for the year 2017-18 and also ARR&ERC order for 2016-17 and 2017-18. In this context, it is to be noted that the Commission had extended the period of validity of the tariff orders (OP No. 9/2014) dated 14.08.2014, 25.09.2014 and 30.09.2014 till 31.03.2016 in view of the pendency of the WP No. 465/2015 (G) filed by KSEB Ltd.

1.12. KSEB Ltd in the letter No. KSEB/TRAC/ARR & ERC 2016-17/2353 dated 30.11.2015, KSEB Ltd had requested the Commission to grant time extension for one month, i.e. till 31.12.2015 for filing the ARR & ERC petition for 2016-17. The reasons cited for such enlargement of time were the time taken for the following new initiatives taken by KSEB Ltd.

(i) Ensuring accuracy and integrity of data.
(ii) Completing the implementation of LT billing software in the balance 256 sections.
(iii) Implementation of central processing of data.
(iv) Submission of data relating to voltage wise distribution loss.
(v) Preparation of safety budget plan for improving safe operations of the installations and network.
(vi) Assessment of the impact of renewable energy purchase and the solar photo voltaic (PV) penetration.

1.13. Even after expiry of the period of extension of one month, as requested for in the letter dated 30.11.2015, KSEB Ltd did not file the petition for determination of tariff as per the provisions of Tariff Regulations, 2014. The Commission thereupon, vide its letter dated 11.01.2016, informed KSEB Ltd as follows,-

(a) As per the regulation-11 of the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2014 (hereinafter referred to as the Tariff Regulations, 2014), the application for the ARR&ERC should be filed, along with the truing up of accounts for the previous financial year, on or before 30th of November of the current financial year, as per the details specified therein. The relevant provisions of the regulation is extracted below for ready reference.

(b) The Tariff Regulations, 2014 has been in force from the FY 2015-16 onwards. Prior to issuance of the said Regulations, the applications for determination of tariff filed by the distribution licensees were processed in accordance with the provisions of the following regulations,-

(i) Kerala State Electricity Regulatory Commission (Tariff) Regulations, 2003;
(ii) Kerala State Electricity Regulatory Commission (Terms and Conditions of Tariff for Retail Sale of Electricity) Regulations, 2006;
(iii) Kerala State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Distribution and Retail Sale of Electricity under MYT Frame Work) Regulations, 2006; and
(iv) Kerala State Electricity Regulatory Commission (Fuel Surcharge Formula) Regulations, 2009.

(c) As per regulation 99 of the KSERC (Terms and Conditions for Determination of Tariff) Regulations 2014, the above regulations, stand repealed.

(d) All the distribution licensees in the State, other than KSEB Ltd are following the provisions in the Tariff Regulations, 2014 for filing the ARR& ERC since the year 2015-16.

(e) However, KSEB Ltd has not followed the provisions of the Tariff Regulations, 2014 while filing the ARR&ERC for the year 2015-16 vide the application dated 30-03-2015.

(f) Though KSEB Ltd has challenged the KSERC (Terms and Conditions for Determination of Tariff) Regulations 2014, before the Hon'ble High Court vide the WP(C) No. 465/2015 (G), the Hon'ble High Court has not stayed the implementation of the said Regulations. The Hon'ble High Court, vide its interim order dated 7th January-2015, has issued only the following direction:

'The tariff proposals if any submitted by the petitioner shall not be rejected on the basis of Ext. P5 regulations'.

(g) Commission is statutorily responsible for regulating the various activities of the 'Distribution licensees' including the expenses of the utility. The Commission has to regulate the licensees based on the provisions of the Electricity Act, 2003 and the regulations notified by the Commission in conformity with the provisions of the said Act from time to time. KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2014 is the prevailing regulations applicable to the licensees and generating companies in Kerala.

(h) Commission further informs that, the expenses incurred by the licensees without the approval of the Commission and the expenses which are not prudent will not be allowed to be passed on to the consumers by way of tariff.

(i) In accordance with the First Transfer Scheme issued by the Government as per G.O (MS) 37/2008/PD dated 25th September 2008 and published as SRO No.990/2008, under Section 131 of the Electricity Act, 2003, the properties, liabilities, interests, rights and obligations of the erstwhile Kerala State Electricity Board were transferred to and vested in the Government. The Government has, under the Companies Act, 1956, incorporated a fully Government owned company namely KSEB Ltd for re-vesting the functions, properties, interest, rights, liabilities, proceedings and personnel in accordance with sub-section (2) and Section 133 of the Act, 2003. There are three independent Strategic Business Units under the corporate office of KSEB Ltd namely Strategic Business Unit (Transmission), Strategic Business Unit (Distribution) and Strategic Business Unit (Generation) for managing the activities relating to transmission, distribution and generation. Accordingly the Government has, vide G.O (P) No.46/2013/PD dated 31.10.2013, published as SRO No.871/2013, issued the Second Transfer Scheme in exercise of the powers conferred under sub-sections (1), (2), (5), (6) and (7) of Section

131 and Section 133 of the Electricity Act, 2003. As per the Second Transfer Scheme, the Government has re-vested in KSEB Ltd., the functions, properties, interest, rights, liabilities, proceedings and personnel of the erstwhile KSEB. As per the provisions of Section 12 and Section 14 of the Electricity Act, 2003, KSEB Ltd is the State Transmission Utility and a distribution licensee which has to perform the duties and functions of the transmission licensee and distribution licensee. In view of the provisions in the Electricity Act, 2003, to the effect that the transmission licensee and the State Transmission Utility shall not engage in trading of electricity, the functions of transmission licensee and the functions of distribution licensee are vested in the Strategic Business Unit (Transmission) and the Strategic Business Unit (Distribution) respectively. The provisions of the Tariff Regulations, 2014 applied to the above Strategic Business Units and to the State Load Despatch Centre which should be ring fenced to ensure independent functioning.

(j) Considering the above facts and legal provisions, KSEB Ltd as well as the Strategic Business Units and State Load Dispatch Centre are statutorily bound to submit application for determination of tariff strictly as per the provisions of the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2014 including the time lines specified therein. Petitions if any submitted for condoning the delay if any will be considered on merits as and when such petitions are filed along with the applications for determination of tariff.

1.14. The Commission, vide letter No. 2329/F&T/2015/ KSERC/332 dated 31.03.2016, further informed KSEB Ltd as follows,-

"(i) All the licensees in the State except KSEB Ltd has filed the ARR&ERC under MYT for the control period from 2015-16 to 2017-18 as per the provisions of the KSERC (Terms and Conditions of Tariff) Regulations, 2014. Though KSEB Ltd had filed the ARR&ERC for the 2015-16 for a single year basis, without adhering to the provisions in the KSERC (Terms and Conditions of Tariff) Regulations, 2014 on 31st March-2015, the Commission could not process the petition, due to the interim order of the Hon'ble High Court in WP (C) No. 465/2015(G), filed by KSEB Ltd challenging certain regulations in KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2014.

(II) The Commission vide the letter cited under reference has directed that, KSEB Ltd as well as the Strategic Business Units and State Load Despatch Centre are statutorily bound to submit application for

determination of Tariff, strictly as per the provisions of the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2014 including the time lines specified therein. However, KSEB Ltd is yet to comply with the directions of the Commission. KSEB Ltd as the STU with State Load Despatch Centre and the distribution licensee owning generation assets, is statutorily bound to comply with the provisions of the Electricity Act-2003, KSERC (Conditions of License for Existing Distribution Licensees) Regulations, 2006, KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2014 and other relevant regulations, orders and directions issued by the Commission from time to time.

(III) The Commission vide its suo motu orders dated 25-03-2015, 25-09-2015 and 14-12-2015 has extended the validity of the tariff order dated 14-8-2014 and the tariff order dated 30-09-2014 in OP No. 9/2014 up to 31-03-2016. The Commission has extended the validity of the said orders dated 14-08-2014 and 30-09-2014 in OP No. 9/2014 for a further period upto 30-09-2016 for all licensees, who have filed the application for approval of ARR&ERC under MYT as per the provisions of the KSERC (Terms and Conditions for Determination of Tariff) regulations, 2014.

(IV) It is noted that, KSEB Ltd has not filed any application for the approval of ARR&ERC for the year 2016-17 as per the provisions of the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2014. Neither has it filed any application for extending the validity of the tariff order dated 14-08-2014 in OP No. 9/2014 and 30-09-2014 in OP No. 9/2014 beyond 31-03-2016, with valid reasons. It is informed that, the extension of the validity of the tariff order dated 14-8-2014 and the tariff order dated 30-09-2014 in OP No. 9/2014 as applicable to KSEB Ltd will expire on 31-3-2016. Appropriate action may be taken.".

1.15. Kerala State Electricity Board Ltd has, consequent to the said letter of the Commission filed a petition on 04.04.2016, requesting to extend, till 30.09.2016 or till the present rates are revised by the Commission, the validity of the then existing tariffs determined by the Commission as per its orders dated 14.08.2014, 25.09.2014 and 30.09.2014 in OP No.9/2014. KSEB Ltd has claimed that the said petition was filed under Section 62 (4) and Section 64 (6) of the Electricity Act, 2003, read with regulations 22 (b), 44 and 69 of Kerala State Electricity Regulatory Commission (Conduct of Business) Regulations, 2003.

1.16. The Commission has carefully examined the request of KSEB Ltd in view of the relevant facts and legal provisions. Sub-section (4) of Sections 62 and sub-section (6) of Section 64 of the Electricity Act, 2003, are quoted hereunder.

"62.Determination of Tariff. –

(4) No tariff or part of any tariff may ordinarily be amended more frequently than once in any financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula as may be specified.

64. Procedure for tariff order.-

(6) A tariff order shall, unless amended or revoked, continue to be in force for such period as may be specified in the tariff order.".

From sub-section (4) of Section 62, it can be seen that tariff order shall normally be issued once in each financial year with a validity period of one financial year and the tariff cannot be changed during that financial year. Sub-section (6) of Section 64 of the Act stipulates that a tariff order shall, unless amended or revoked, continue to be in force for such period as may be specified in the tariff order. The said statutory provisions do not confer on KSEB Ltd any right or privilege to request, without submitting proper application and supporting documents as specified in the Tariff Regulations, 2014, for enlargement of the validity period of the tariff orders dated 14.08.2014, 25.09.2014 and 30.09.2014 which were issued for the financial year ending on 31.03.2015. Regulation 11 of the Tariff Regulations, 2014 provides that every transmission licensee or distribution licensee or State Load Dispatch Centre shall file on or before 30th day of November of the current financial year, an application for approval of ARR and for determination of tariff for the ensuing financial year along with application for truing up of the accounts for the previous financial year. It is further stipulated therein that the tariff determined for a particular financial year shall be in force till the end of such financial year unless the Commission approves the continuation of such tariff for subsequent periods.

1.17. The Commission observed that being the State Transmission Utility and the distribution licensee owning most of the generation assets in the State, KSEB Ltd has a bounden duty and responsibility to submit in time, in compliance of the relevant statutory provisions and regulations, the application for determination of the aggregate revenue requirements (ARR), the expected revenue from charges (ERC) and the tariff, along with all the supporting documents as specified in the Tariff Regulations, 2014. KSEB Ltd has to, in compliance of the provisions in the Section 64 of the Act, submit application for determination of tariff for various categories of consumers depending upon the revenue gap or revenue surplus anticipated during the relevant financial year. ARR is the estimate of expenditure for a financial year and ERC is the estimate of revenue for that particular financial year at the prevalent tariff and the difference between them would indicate the revenue surplus or revenue gap to be considered while determining the tariff. The Commission has to conduct public hearing on such applications as an integral part of the procedure for determination of tariff. After duly considering all the relevant facts presented by the licensee and by the stakeholders and after prudence check, the Commission has to issue appropriate orders determining the tariff. Under the circumstances as explained in earlier paragraphs the validity of the tariff orders dated 14.08.2014, 25.09.2014 and 30.09.2014 was extended by the Commission till 31.03.2016.

1.18. The Commisison also noted that it is the prime and foremost duty of KSEB Ltd to submit applications for truing up of its accounts with actual figures of revenue and expenditure and audited accounts, so that the Commission can, after due consideration of all the relevant facts and figures and after public hearing and prudence check issue appropriate orders thereon. As a Government company incorporated under the provisions of the Companies Act, 1956 and functioning under the provisions of the Companies Act, 2013, KSEB Ltd must have completed preparation of its annual accounts for 2014-15 and 2015-16. The Comptroller and Auditor General (C&AG) must also have completed the audit of the accounts of KSEB Ltd for the financial year 2014-15. But for reasons unknown to the Commission, KSEB Ltd has not submitted in time the application for truing up of accounts to the Commission for its scrutiny, prudence check and approval. It should be specially noted that the Commission has the duty to examine such accounts and to conduct prudence check with a view to safeguarding the interests of the consumers. The consumers who contribute to the revenue of KSEB Ltd have a right to know such accounts. The action of KSEB Ltd in having delayed the application for truing up of accounts for the scrutiny by the Commission and by the consumers cannot be justified on any grounds. Further, in the case of delay in submitting the application for truing up of accounts, KSEB Ltd would face the risk of losing the chance to recover the amount of revenue gap, if any, as determined by the Commission.

1.19. In the petition dated 04.04.2016, KSEB Ltd has submitted that the petitioner is the State Transmission Utility (STU) and the distribution licensee, which also owns generation assets, in the state of Kerala. As per the Second Transfer Scheme notified by the Government under Section 131 of the Electricity Act, 2003, the activities of the company are being carried out through Strategic Business Units (SBUs) for each of the functions of generation, transmission and distribution. In the petition dated 04.04.2016, KSEB Ltd has further submitted that the Hon'ble APTEL vide its order dated 10.11.2014 in appeal Nos. 1/2013 and 19/2013, has remanded the matter of truing up of accounts of KSEB Ltd with certain findings which are expected to alter various trued up figures applicable to KSEB Ltd for the year 2010-11. KSEB Ltd has not explained how and why the said order of the Hon'ble APTEL dated 10.11.2014 would prevent it from filing the application for truing up of accounts and for determination of tariff, along with the details of the actual expenditure and revenue and the audited accounts for the relevant financial year.

1.20. In para 15 and 16 of the petition dated 04.04.2016 KSEB Ltd has submitted that as per regulation 9 (2) of the Tariff Regulations, 2014, an application for approval of the ARR & ERC in MYT frame work for the second year of the control period shall be based on elements like,-

(i) Approval of ARR by the Commission for the control period along with the determination of tariff for the first year of the control period.

(ii) Revised forecast of the ARR for the ensuing year.

(iii) Truing up of expenses and revenue of previous financial year.

KSEB Ltd has stated in para 16 of the petition dated 04.04.2016 that it is facing difficulty in complying with the direction of the Commission in view of the fact that the application for approval of ARR & ERC for the first year of the control period (2015-16) is pending before the Commission. ARR is the estimate of expenditure for a financial year and ERC is the anticipated revenue for the said financial year at the prevalent tariff. Therefore the above contention of KSEB Ltd does not appear to be reasonable or well founded, since the estimate of expenditure and revenue at the prevalent tariff do not depend on the order of the Commission approving the ARR & ERC of the previous financial year.

1.21. In para 18 of the petition dated 04.04.2016 KSEB Ltd has submitted that non-availability of approved tariff will severely affect its effective functioning including financials and that the absence of approved tariff could cripple the entire revenue generation activity, which in turn could lead to default in payment to generators, central transmission utility, banks and financing agencies etc., which could have serious consequences in maintaining power supply within the State. It has been further submitted that without an approved tariff applicable for retail supply, KSEB Ltd will not be able to effectively perform its various duties and responsibilities mandated under the Electricity Act, 2003 as a distribution licensee. Therefore KSEB Ltd has requested the Commission to extend the validity of the existing tariff orders dated 14.08.2014, 25.09.2014 and 30.09.2014 in OP No.9/2014 till 30.09.2016 or the date of effect of new tariff order pertaining to the financial year 2016-17 whichever is earlier.

1.22. The Commission after examing the matter in detail in the light of various statutory provisions and circumstances, concluded that view of KSEB Ltd failing to file the petition for approval of ARR&ERC, the Commission is bound to determine tariff applicable for the year 2017-18 in accordance with the regulations and the orders issued by the Hon'ble APTEL. Accordingly, the Commission decided to determine tariff for the year 2017-18 on a suo motu proceedings as directed by the Hon'ble APTEL in its order dated 11.11.2011 in OP No.1/2011, as specified in the Tariff Regulations, 2014 and as stipulated in the Tariff Policy, 2016.

1.23. Accordingly, the Commission had, vide notice No. 1007/F&T/Suo motu Tariff Revision / 2016-17 dated 22.06.2016 initiated suo motu proceedings for determination of tariff. In the said notice, the Commission proposed the aggregate revenue requirements and expected revenue from charges for the SBU-G, SBU-T and SBU-D of KSEB Ltd for the years 2016-17 and 2017-18 based on the information available with the Commission. The Commission conducted public hearing on the said proposals at Thiruvananthapuram on 27-07-2016. Based on the submissions made by various licensees and other stakeholders the Commission provisionally decided to revise the tariff taking into consideration the statutory provisions, the regulations and the policy directives in the Tariff Policy, 2016. Accordingly the Commission published the resume of the proposed revision of tariff as per notice No. 1007/ F&T/ Suo Motu/2016-17 dated 01-12-2016. The Commission again conducted public hearings on the proposals contained in the notice dated 1-12-2016. The Commission, after duly considering the views, suggestions and objections submitted by the consumers, the licensees and other stakeholders as well as the views expressed by the Members of the State Advisory Committee ***issued orders on 17-4-2017 in the suo motu proceedings initiated as per the notice dated 22.06.2016 and 01.12.2016, approving the ARR&ERC for 2016-17 & 2017-18, and revising the tariff for 2017-18***

1.24. The present truing up petition filed by KSEB Ltd is in comparison with the ARR&ERC Order issed by the Commission for the year 2016-17 as per the order dated 17-4-2017. A summary of the Truing up petition for the year 2016-17 of KSEB Ltd is given below:

Table 1

Summary of the Audited Accounts and Truing up the year 2016-17

Particulars	Approved in suo motu Order (Rs.crore)	As per Accounts (Rs.crore)	Trued up (Rs.crore)
Revenue from sale of power	10,900.72	11,218.83	11,036.77
Non-Tariff income	441.00	400.78	537.51
Total Revenue	**11,341.72**	**11,619.61**	**11,574.28**
Generation Of Power	-	23.45	23.45
Purchase of power	7,752.76	7,393.32	7,551.41
Interest & Finance Charges	1,488.27	959.92	946.21
Depreciation	414.80	718.88	617.50
Employee Cost (excluding terminal benefits)	1,596.15	2,139.72	2,139.72
Repair & Maintenance		265.12	265.12
Administration & General Expenses		374.79	374.79
Other Expenses	-	17.98	49.75
Terminal benefits	-	1,221.06	1,221.06
Net Expenditure (A)	**11,251.98**	**13,114.24**	**13,189.01**
Statutory Surplus/ Roe (B)	489.86	-	489.86
ARR (C) = (A) + (B)	**11,741.84**	**13,114.24**	**13,678.87**
Revenue Gap (C-D)	**400.12**	**1,494.63**	**2,104.59**

1.25. The revenue gap as per the Petition for truing up of accounts for the year 2016-17 is Rs 2104.59 crore and as per the audited accounts the revenue gap is Rs.1494.63 crore. The difference between the audited accounts and the truing up petition is mainly on account of the Return on Equity (Rs.489.86 crore), and interest and financing charges (Rs.13.71 crore), purchase of power on account of Ind AS adjustments (Rs158 crore), depreciation (Rs.101.38 crore) on account of assets created out of contribution and grants, nontariff income (Rs.136.73 crore).

1.26. The SBU wise split up of ARR & ERC furnished in the petition is as shown below:

Table 2

SBU wise ARR&ERC for 2016-17 as per Petition

	SBU-G	SBU-T	SBU-D	KSEB Ltd
Particulars	Rs crore	Rs crore	Rs crore	Rs crore
Revenue from sale of power	695.23	991.11	11,036.77	11,036.77
Non-Tariff income	22.23	35.46	479.82	537.51
Total Revenue	**717.46**	**1,026.57**	**11,516.59**	**11,574.28**
Cost of Generation			695.23	
Cost of intra state trnamission			991.11	
Fuel cost	23.45			23.45
Power Purchase			7,551.41	7,551.41
Employee expense	91.16	260.29	1,788.27	2,139.72
R&M expenses	27.70	47.21	190.21	265.12
A&G expenses	9.69	64.99	300.11	374.79
O&M for new Stations				
Total O&M expenses	**128.55**	**372.49**	**2,278.59**	**2,779.63**
Terminal liabilities	81.83	127.07	1,012.16	1,221.06
Interest and financing charges	50.05	56.28	839.88	946.21
Depreciation	188.79	183.20	245.51	617.50
RoE	203.63	217.59	68.64	489.86
Other expenses	41.16	69.94	(-)61.35	49.75
Gross Expenses	**717.46**	**1,026.57**	**13,621.18**	**13,678.87**
Revenue gap	-	-	2,104.59	2,104.59

Indian Accounting Standards (Ind AS) compliance and its impact

1.27. KSEB Ltd had adopted the Ind AS for preparation of accounts from 2016-17 In the petition KSEB Ltd stated that Accounts till 31-3-2016 were prepared line with IGAAP accounting standards and applicable provisions of Companies Act and Electricity Act, 2003. However, the Annual Accounting statements for the year 2016-17 were prepared in compliance with Ind AS notified by the Ministry of Corporate Affairs on 16-2-2015. This standard converges with International Financial Reporting Standards (IFRS). The adoption of Ind AS entails a significant change in the financial reporting framework used by Indian companies to report their financial results.

1.28. According to KSEB Ltd adoption of Ind AS is on account of the fact that the net worth of Kerala State Electricity Board Limited is more than Rs.500 crore and hence KSEB Ltd has to mandatorily apply the provisions of Ind AS in the preparation of Financial Statements for accounting periods beginning on or after 1-4-2016. Ind AS has some significant business consequences and the change process was a major one. Since adoption required substantial preparation and training effort, KSEB Ltd engaged an experienced Chartered Accountant Firm as Ind AS Implementation Consultant and finalized accounts for 2016-17**.**

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

1.30. Thus, a reconciliation of Balance sheet items as reported under I GAAP and Ind AS from 2014-15 to 2016-17 is disclosed by KSEB Ltd in page 10 of the Annual Financial Statements of KSEB Ltd for FY 2016-17. Further reconciliation of profit or loss as reported under I GAAP and IND AS for FY 2015-16 and FY 2016-17 is furnished in page 11 of the Annual Financial Statements for 2016-17 of KSEB Ltd. KSEB Ltd has mentioned that the impact of this account transition is described in Chapter 5 of the petition.

1.31. KSEB Ltd stated that there are some difference in the amounts as per the accounts and as per the petition on account of the Ind AS transition The summary of the audited Annual statement of Accounts of the KSEB Ltd for the year 2016-17 vis-à-vis the petition for truing up is given below:

Table 3

Summary of truing up petition of KSEB Ltd for the year 2016-17

No	Particulars	Approved in the *suo motu* ARR order*	As [er Audited accounts	As per Truing up petition	Difference
		(Rs. crore)	(Rs. crore)	(Rs. crore)	(Rs. crore)
		(A)	(B)	(C)	(D=C-A)
1	ARR	11741.84	13114.24	13678.87	1937.03
2	ERC	11341.72	11619.61	11574.28	232.56
3	Revenue gap (1-2)	400.12	1494.63	2104.59	1704.47
**Approved Vide Tariff Order No.1007/F&T/2016/KSERC/dt.17-4--2017*					

1.32. According to KSEB Ltd, the difference between audited accounts and true-up values are mainly due to inclusion of Return on Equity, claw back of depreciation, Ind AS adjustment impact and undisbursed interest on security deposit in the truing-up values.

Public hearing on the petition

1.33. Public hearing on the petition was held at the Court Room, Office of the Kerala State Electricity Regulatory Commission, Thiruvananthapuram on 25-7-2018 at 11.00 AM. The list of participants is given in Annexure.

1.34. 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 application before the Commission. Sri. B.Pradeep, Sri. Biju and Sri.Girish Kumar responded to the queries of the Commission on the truing up of accounts for the year.

The main points made by KSEB Ltd are,-

- The total energy sale for the year 2016-17 as per the application is 20452.91 MU. The total energy input for the year 2016-17 is 23763.58 MU. Thus the actual Transmission and Distribution loss reported by KSEB Ltd for the year 2016-17 is 13.93%.
- The fuel cost for generation of power is Rs.23.45 crore

- Cost of power purchase and inter-state transmission charges incurred by KSEB Ltd for 2016-17 amounts to Rs. 7551.41 crore.
- The actual expense incurred on Interest and finance charges is Rs.946.21 crore which includes loan interest, security deposit interest, overdraft interest, PF interest etc.
- The total depreciation claimed is Rs.617.50 crore which includes the depreciation of SBU G, SBU-T & SBU D.
- The total O&M expenditure is Rs.2278.59 crore which includes the repair and maintenance expenses, employee cost, and administrative and general expenses of SBU G, SBU-T & SBU D.
- A total amount of Rs.1221.06 crore is claimed towards meeting the terminal benefits.
- Total return on equity claimed 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 is Rs.49.75 crore.
- Accordingly the total ARR net of non-tariff income for SBU-G, SBU-T & SBU D is Rs.13678.87 crore
- Revenue from tariff for the sale of power and the non-tariff income which includes meter rent/service line rental, miscellaneous charges from consumers, recoveries, income from sale of scrap etc sums to a total of Rs. 11574.28 crore

  Accordingly the revenue gap as per the application for truing up of accounts for the year 2016-17 is Rs 2104.59 crore.

1.35. In the petition, KSEB Ltd has claimed that the Statutory Auditors have audited the accounts for the year 2016-17 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:

> *"(1)Truing up of Expenses and Revenue as per the Audited Accounts of KSEBL for the year 2016-17 and explained in this petition may kindly be approved, in view of the care and caution taken by the Board for carrying out the functions of the Board as a public utility as per the statutory*

provisions under the Electricity Act, 2003 and also as per the directions, orders and regulations issued by the Hon Commission, policies and directions issued by the State and Central Government and other statutory bodies within the provisions of the Electricity Act-2003.

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

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

Response of stakeholders

1.36. **Sri. Dijo Kappan,** representing the **Consumer Education Trust** presented the views and objections on the claims made by KSEB Ltd. He stated that the claim of the licensee on Employee cost and Repair and maintenance cost are on the higher side. The reason for increase in revenue gap is mainly due to inefficiency of the licensee and such increase in revenue gap due to inefficiency shall not be passed on to the consumers. He stated that per unit cost of electricity is higher than that of other States and further stated that the administrative expenses including employee cost should be ascertained first for increasing the efficiency. He requested that while truing up of accounts of the licensee, the expenses incurred by the licensee should thoroughly be scrutinized in accordance with the Tariff Regulations and only the prudent expenses may be allowed.

1.37. **Sri. Shaji Sebastian** presented the views of Kerala Small Scale Industries Association. He appreciated the licensee for its consumer friendly actions. He mentioned that the consumers are only concerned about tariff increase. He submitted that the revenue gap as per the accounts submitted by KSEB Ltd will lead to a huge increase in tariff and such tariff increase cannot be afforded by the consumers. He stated that old/faulty meters are not fully replaced and expressed that energy efficiency can only be achieved by means of effective replacement of faulty meters. He also stated that smart meters should be introduced effectively for better performance.

1.38. **Sri. Jayaprakash,** representing the KSEB Workers Association submitted that the number of consumers in the State is increasing over the years and KSEB Ltd is supplying electricity to all the consumers across the State. He stated that the cost claimed by KSEB Ltd may be allowed in view of the efficient work done by

KSEB Ltd. He also submitted that the Commission may approve the claims made by KSEB Ltd while truing up the accounts for the year 2016-17 and take necessary steps to bridge the revenue gap of KSEB Ltd.

1.39. **Sri. A.R Satheesh**, presented the comments on the petition of KSEB Ltd. He stated that the operation and maintenance cost claimed by KSEB Ltd is very high when compared to previous years. He requested that the operation and maintenance cost should be reduced to a possible extend by means of effective utilization of available resources including manpower

1.40. **Sri. Asokan, Friends of Electricity Employees and consumers (FEEC) and Sri KA Sivadasan, Institute for sustainable development and energy studies** in their written comments stated that the cost of generation of power of Rs.23.45 crore is to be given to KSEB Ltd since BDPP and KDPP was scheduled due to special circumstances. Since KSEB Ltd has reduced the T&D loss, the power purchase cost may be approved in full. The interst on overdraft is to be allowed considering the approved revenue gap. Further the terminal benefis in actual to be allowed since master trust has not been formed. The depreciation claimed by KSEB Ltd should be allowed after verifying the asset additions in 2014-15 and 2015-16. The employee cost should be trued up based on the APTEL. The impact of faulty meters on the energy sales is to be examined and remedial measures may be taken. It is to be made known that the directions issued by the Commisison for cost reduction is complied with by KSEB Ltd The Commissio may examine the working of the master fund as only interest portion is transferred as agaist the repayent and interest on master trust. There is no information furnished by KSEB on the reliability indices such as SAIFI, CAIDI etc, The Commission should fix performance targets for KSEB Ltd if not already done.

1.41. **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. George Thomas**, presented the comments of the Association on the Petition filed by KSEB Ltd.

1.42. The Association pointed out that there is considerable delay in filing of the truing up petition for 2016-17. 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. The Association also stated that KSEB Ltd should mention the date of application in the petition so as to assess the actual days of delay. 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.

1.43. According to the Association as against the calculation of KSEB Ltd on T&D loss of 13.93%, the actual loss will be 14.09%. The Association demanded that loss target of 13.9% is to be insisted and disallow excess T&D loss of 52.72MU.

1.44. With regard to auxiliary consumption of hydro stations, the allowable auxiliary consumption is 16.83MU as against 26.97MU and hence excess auxiliary consumption is 10.14MU to be deducted from marginal plants.

1.45. The Association also pointed out the difference in power purchase cost of CGS stations and requested that the Commission should examine the power purchase bills and blending ratio etc, before allowing the variable cost.

1.46. With regard to Power Purchase from IPPs it was submitted that KSEB Ltd has purchased 178.20 MU at the cost of Rs.252.04 crore which is largely contributed by liquid fuel station RGCCPP, Wind IPPs and other small hydro plants. Since there is no prior approval for the purchase from RGCCPP, the entire cost of Rs216.52 cores should be disallowed. In the absence of details of claim of KPCL, the entire cost should be disallowed. Accordingly, the Association requested to allow only Rs.6835.89 crore towards power purchase cost.

1.47. The Association pointed out that interest on CWIP cannot be allowed as per the Regulations, the capital works in progress as on March 2017 is Rs. 1782 crore. It was submitted that the interest charges on work in progress loans of Rs. 196.06 crore. 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. Hence interest on over draft should be disallowed. It was further submitted that the Commission may allow only the actual interest disbursed on security deposit in the truing up.

1.48. The claim of KSEB Ltd on terminal liabilities to the tune of Rs1012.16 crore should be disallowed and only the interest on Master Trust is to be allowed. 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. According to the Association, depreciation amount of Rs.380.40 crore only be allowed instead of Rs.617.51 crore sought in the petition.

1.49. The Association pointed out an arithmetical error in O&M expenses of Rs.208.90 crore. The Association stated that O&M cost of the KSEB Ltd is the highest in the country. The employee cost claimed by KSEB Ltd is Rs.2348.62 crore. The employee cost increased at an average rate of 3.51% CAGR from 2004 to 2008, however, the CAGR of 2009 to 2017 is 13.10% which is abnormal. The Association also pointed out the remarks of the Additional Chief Secretary on the employee cost.

1.50. 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. The Association also stated that the Electricity duty shall not be passed on to the consumers. Regarding O&M cost of new plants, the Association stated that Rs3.94 core to be allowed for new SHPs and 0.55 crore for solar plants.

1.51. In the case of transmission business, the Association stated that O&M expenses as per Regulation Rs.193.82 core is to be allowed instead of Rs.372 crore proposed by KSEB Ltd

1.52. In the case of SBU-D, the Association pointed that O&M expenses as per Regulation of Rs.1296.89 crore is to be allowed instead of RS.2278.59 crore proposed by KSEB Ltd.

1.53. KSEB Ltd is frequently challenging the orders 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 association also requested the Commission may undertake a thorough check on variances provided by KSEB Ltd on the material cost variance of Rs.64.33 crore.

1.54. Regarding RoE, the Association pointed out the order of APTEL in Appeal NO 247 of 2014 and stated that only Rs.39.75 crore should be allowed.

1.55. According to the Association, once the points raised by them are considered, there will be a Revenue surplus of Rs.1362.17 crore against a Revenue gap of Rs. 2104.59 crore as proposed by KSEB Ltd.

1.56. During the hearing, the Commission insisted that Common Accounting Policies are to be followed in all the Accounts Rendering Units. The Commission further stressed the need consistant policy for correcting the errors and discrepancies with respect to apportionment of expenses among the Strategic Business Units. The Commission pointed out the concern, on the practice of the KSEB Ltd having two accounts for depreciation. Commission mentioned that the licensee may account depreciation as per the Regulations issued by the Commission, as the same is allowed in the Companies Act. In the order dated 27-7-2018, issued after the hearing, the Commission has also sougth clarification on several issues and directed KSEB Ltd to furnish detailed clarifications immediately. However, KSEB Ltd could not furnish the details as sought by the Commission and hence the Commission issued a reminder dated 29-8-2018, directing to furnish the details by 31-8-2018. In compliance of the same the details of the responses given by KSEB Ltd are shown below:

Sl.No	Reference No.	Date	Subject
1.	KSEB/TRAC/FO/Truing up/2016-17/4712	6-8-2018	Details of employee cost after 1-4-2009
2	KSEB/TRAC/FO/TU17/4761	3-9-2018	Additional clarifications

1.57. The Commission after examining the petition and the clarifications furnished thereon in detail and the objections of the stakeholders, has arrived at the truing up of accounts of the KSEB Ltd for the year 2016-17 as detailed in the ensuing chapters.

CHAPTER -2

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

Introduction

2.1 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.

2.2 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

2.3 An analysis of the Truing up petition submitted by KSEB Ltd for SBU-G reveals the following:

Revenue from Operations:

2.4 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. KSEB Ltd in their truing up petition has claimed the SBU-G transfer cost as Rs.695.23 crore.

Tariff Income

2.5 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 approved transfer cost is arrived at in the subsequent sections in this chapter.

Non Tariff income

2.6 In the truing up petition, SBU-G has claimed based on apportionment a non-tariff income of Rs.22.23 crore. The different components of non- tariff income are shown in the Table below:

Table 2

Non-Tariff income of SBU-G for 2016-17

Particulars	Approved in the suo motu ARR Order (Rs.crore)	As per Truing Up petition (Rs. crore)
Non-tariff income (Rs crore)		
Interest on staff loans and advances		0.01
Income from statutory investments		0.00
Income from sale of ash/rejected coal		0.00
Income from rent of land or buildings		0.62
Income from sale of scrap		1.56
Income from staff welfare activities		0.00
Rental from staff quarters		0.07
Excess found on physical verification		0.00
Interest on investments, fixed and call deposits and bank balances		0.01
Interest on advances to suppliers/contractors		0.91
Income from hire charges from contractors and others		0.00
Income from advertisements, etc.		0.00
Miscellaneous receipts		19.06
Interest on delayed or deferred payment on bills		0.00
Rebate from fuel suppliers		0.00
Total non-tariff income	0.00	22.23

Objections of Stakeholders

2.7 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

2.8 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."*

2.9 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.

Analysis and decision of the Commission

2.10 In the year 2015-16, the KSEB Ltd has apportioned Rs. 19.43 crore towards non-tariff income. In 2016-17, the same has increased to Rs.22.23 crore.

2.11 ***The Commission after considering the details furnished, approves the non-tariff income of Rs.22.23 crore for SBU-G for the year 2016-17 as claimed by KSEB Ltd for SBU-G***

Total Revenue

2.12 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.717.46 crore and the total income approved for SBU-G is Rs. 668.49 crore. Since the revenue of SBU-G net of Non Tariff Income (Rs.646.26 crore) is the transfer cost to SBU-D, the details of the same is furnished in the subsequent sections.

Table 3

Total Revenue of SBU-G for the year 2016-17

	Approved in the suo motu ARR order (Rs.crore)	As per Petition (Rs. crore)	Approved in Truing up (Rs.crore)
Revenue from Transfer Cost	672.61	695.23	646.26
Non-Tariff income	0.00	22.23	22.23
Total Income	**672.61**	**717.46**	**668.49**

Expenses of SBU-G

2.13 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	Actuals 2015-16 (Rs.crore)	Approved in the suo motu ARR order (Rs.crore)	As per truing up Petition (Rs. crore)
1	Cost of Generation of Power	104.26	0.00	23.45
2	Interest & Finance Charges	46.32	220.84	50.05
3	Depreciation	122.05	172.43	188.79
4	O&M Expenses *(Excl terminal benefits)*	143.88	75.71	128.55
5	RoE (14% of Rs 1454.53 crore)	203.63	203.63	203.63
6	Other debit and prior period income	(-)7 .96	0.00	41.16
7	Terminal benefits	40.62		81.83
8	ARR	652.8	672.61	717.46
9	Less Non-Tariff Income	19.43	0.00	22.23
10	**Net ARR** (Transferred to SBU-D)	**633.37**	**672.61**	**695.23**

2.14 Each of the items of the revenue requirements is examined in the subsequent sections.

Generation from internal generating stations

2.15 The total gross generation from internal generating stations for the year 2016-17 was 4369.54MU. The total auxiliary consumption repoted is 29.62MU and the net generation is 4339.92MU. The total gross hydro generation was 4319.08MU. The generation from BDPP and KDPP together was 43.55MU and the net generation after accounting for auxiliary consumption ws 40.59MU. The generation from renewable sources such as wind and solar was 6.91MU only.

Table 5
Generation from internal generating stations for the year 2016-17

	As per Audited Accounts (MU)		
Source	**Gross Generation**	**Aux consumption**	**Net Generation**
Hydro	4,319.08	26.97	4,292.11
BDPP	5.54	0.94	4.59
KDPP	38.01	1.67	36.34
Wind	1.71	0.00	1.71
Solar	5.20	0.03	5.17
Subtotal	**4,369.54**	**29.62**	**4,339.92**

Cost of Generation–Hydro generating stations

2.16 The total generation from all internal generating stations for the year 2016-17 was 4369.54MU in comparison with the approved quantity of 4400MU. In 2016-17, the Commission did not approve generation from internal liquid fuel stations of BDPP and KDPP. Thus, out of the total generation of 4369.54MU, hydro generation was 4319.08 MU against the approved quantity of 4400 MU.

Table 6
Hydro generation for the year 2016-17

Source	Gross generation (MU)	Auxiliary consumption (MU)	Net Generation (MU)
Approved in ARR	4,400.00	23.13 (0.53%)	4,376.87
Audited Accounts	4,319.08	26.97 (0.62%)	4,292.11

2.17 As indicated above, KSEB Ltd, mentioned that the gross hydel generation was 4319.08 MU, whereas the net generation after deducting auxiliary consumption of 26.97MU was 4292.11 MU. The auxiliary consumption as a percentage of the gross generation was 0.62%. The details of generation from hydro stations for the year 2016-17 furnished by KSEB Ltd is given in the Table below:

Table 7
Station Wise hydro generation as per the petition for 2016-17

No	**Hydro Electric Stations**	**Generation (MU)**		**No**	**Hydro Electric Stations**	**Generation (MU)**
1	Idukki	1379.05		18	Urumi	9.03
2	Sabarigiri	797.83		19	Chembukadav I & II	8.64
3	Kuttiady (Units :1 - 6)	465.44		20	Kuttiady Tail Race	6.35
4	Lower Periyar	308.22		21	Ranni-Perinadu	5.85
5	Neriamangalam+NES	196.25		22	Addyanpara	5.01
6	Poringalkuthu + PLBE	194.94		23	Peppara	3.95
7	Edamalayar	171.96		24	Vellathuval SHEP	3.05
8	Sholayar	167.11		25	Lower Meenmutty	2.48
9	Pallivasal	166.01		26	Madupetty	2.30
10	Kakkad	130.63		27	Chimony	1.56
11	Sengulam	115.58		28	Malampuzha	0.63
12	Panniar	62.17		29	Peechi	0.40
13	Kallada	44.36			**KSEB Hydro (TOTAL)**	**4319.08**
14	Malankara	24.74				
15	Barapole	19.32			Aux Consumption (MU)	26.97
16	Vilangad	15.78			**Net Generation in MU**	**4292.11**
17	Poozhithode	10.45			Auxiliary consumption %	0.6244

Objections of the Stakeholders

2.18 In their submission, the High Tension and Extra High Tension (HT-EHT) Association stated that for hydro stations, the auxiliary consumption reported is 26.97MU. 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 16.83 MU and the excess auxiliary consumption of 10.14 MU is to be disallowed. Further, KSEB Ltd included excess auxiliary consumption of diesel stations 1.71MU and the cost of the same is to be deducted from the marginal stations

Provisions in the Regulations

2.19 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.

2.20 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

2.21 In their truing up petition, KSEB Ltd has stated that the gross hydro generation is 4319.08 MU and the auxiliary consumption is 26.97MU, which is 0.62% of the total hydro generation. It is to be noted that 2016-17 was a monsoon short fall year. The inflow for the year was only 3703.06MU which is about 3000MU lower than anticipated. The Regulations provides for benchmark percentage auxiliary consumption based on gross generation for the major stations and that of small hydro projects, respective regulations shall be applicable for the determination of allowable auxiliary consumption.

2.22 The Commisison notes that in 2016-17, the actual generation from hydro stations was only 4319.08MU which shows that the year was a monsoon deficient year. The average hydro generation during normal monsoon years will range from 6000 to 7000MU. In comparision with the average generation, the actual generation in 2016-17 is comparatively low. In such circumstances, it is not fair to allow auxiliary consumption based on the percentage of actual gross generation during low hydro years. Hence, the Commission is of a considered view that the auxiliary consumption may be allowed considering the normal year. In 2015-16, the total hydro generation was 6639MU, which can be considered as a normal hydro year. The auxiliary consumption approved by the Commission for 2015-16 was 25.91MU. In comparision with the figures of 2015-16, the actual auxiliary consumption in 2016-17 is 26.97%, which almost same as that of a normal monsoon year. ***Hence, based on the justification mentioned above, the Commission allows the actual auxiliary consumption for hydro stations for the purpose of truing up.***

Cost of Generation–Diesel Stations

2.23 The Commission has not approved any generation from diesel stations. In their truing up petition, KSEB Ltd has submitted the gross generation of power from diesel power generating stations of SBU-G ie., BDPP and KDPP as 43.55MU and the net energy after deducting the auxiliary consumption was 40.93MU. The cost for this power generation is shown as Rs.23.45 crore. The summary of the generation and cost of power from BDPP and KDPP is shown in the Table below:

Table 8

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

Month	Actual		
	Quantity(MU)	Rate(Rs/kWh)	Amount(Rs. crore)
BDPP	4.59	8.60	3.95
KDPP	36.34	5.37	19.50
Total	40.93		23.45

2.24 KSEB Ltd stated that though the Commission has not approved generation from diesel stations, KSEB Ltd was forced to generate gross energy of 43.55MU (net energy of 40.93MU) from these stations due to special circumstances. According to KSEB Ltd, during April 2016, consumption was unprecendently rose due to severeity of summer and due to general elections. The peak load recorded all time high of 4004MW and daily consumption touched 80MU in April 2016. Since there is reduction in availability from CGS, KDPP was made ready to meet the contingencies all along the year and it was scheduled for remaining the months for short period for testing pruposes. In order to overcome the deficits, liquid fuel stations were scheduled for managing the demand without imposing load shedding.

2.25 As per the details furnished by KSEB Ltd the generation from the diesel stations is as given below:

Table 9

Generation from BDPP and KDPP

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

2.26 In the letter dated 3-9-2018, KSEB Ltd has furnished the following details regarding the heat rate, calorific value of fuel, quantiy of fuel used etc., of diesel stations. Thedetails furnished are given below:

Table 10

Details of parameters of Diesel Station (BDPP) for the year 2016-17

Month	Station heat rate	Calorific value of fuel		Quantity of fuel			Price of fuel		
		Diesel	LSHS	Diesel	LSHS	Lube Oil	Diesel	LSHS	Lube Oil
	(Kcal/ kg)	(Kcal/ kg)	(Kcal/ kg)	Ltr	(MT)	Ltr	(Rs/Ltr)	(Rs/MT)	(Rs/Ltr)
Apr-16	2076.09	10030.00	10270.00	168014.00	771.48	6917.00	41.94	29151.58	138.70
May-16	1941.85	10030.00	10270.00	43376.00	200.82	1954.00	43.36	27352.38	140.95
Jun-16	0.00	10030.00	10270.00	3571.00	0.00	0.00	43.36	0.00	0.00
Jul-16	0.00	10030.00	10270.00	0.00	0.00	0.00	0.00	0.00	
Aug-16	0.00	10010.00	10270.00	4904.00	0.00	0.00	43.36	0.00	0.00
Sep-16	0.00	10010.00	10270.00	3095.00	0.00	0.00	43.36	0.00	0.00
Oct-16	0.00	10010.00	10270.00	1055.00	0.00	0.00	43.36	0.00	0.00
Nov-16	0.00	10010.00	10270.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec-16	0.00	10010.00	10270.00	4568.00	0.00	0.00	43.36	0.00	0.00
Jan-17	0.00	10010.00	10270.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb-17	0.00	10010.00	10270.00	141.00	0.00	0.00	43.36	0.00	0.00
Mar-17	2575.15	10010.00	10270.00	9321.00	6.66	0.00	43.36	27352.40	0.00

Table 11

Details of parameters of Diesel Station (KDPP) for the year 2016-17

Month	Station heat rate	Calorific value of fuel		Quantity of fuel			Price of fuel		
		Diesel	LSHS	Diesel	LSHS	Lube Oil	Diesel	LSHS	Lube Oil
	(Kcal/ kg)	(Kcal/ kg)	(Kcal/ kg)	Ltr	(MT)	Ltr	(Rs/Ltr)	(Rs/MT)	(Rs/Ltr)
Apr-16	2147.10	10950.00	10273.00	0.93	5847.23	20850.62	41.28	21888.16	122.52
May-16	2161.22	10950.00	10270.00	3.36	1535.50	8032.64	42.13	23663.25	120.36
Jun-16	3815.56	10950.00	10270.00	1.41	0.45	64.00	42.13	23663.25	120.36
Jul-16	2524.57	10950.00	10270.00	2.55	53.47	413.00	42.13	23663.25	120.36
Aug-16	2590.62	10950.00	10270.00	11.14	89.14	48.00	43.32	23663.25	120.36
Sep-16	0.00	10950.00	10270.00	0.02	0.00	47.00	44.53	23663.25	120.36
Oct-16	2270.03	10950.00	10270.00	17.70	111.52	0.00	46.18	24335.29	120.36
Nov-16	2135.36	10950.00	10270.00	8.66	96.86	3115.00	46.47	25225.99	120.36
Dec-16	1466.27	10950.00	10270.00	6.29	53.06	1063.92	46.88	25791.66	117.65
Jan-17	0.00	10950.00	10270.00	2.02	0.00	127.00	46.88	25791.66	117.65
Feb-17	2796.13	10950.00	10270.00	3.49	19.45	2226.00	46.88	25791.66	117.65
Mar-17	1992.42	10950.00	10270.00	2.95	145.65	541.00	46.88	25791.66	117.65

2.27 As shown above, total fuel cost of diesel stations was Rs.23.45 crore. The actual station heat rate furnished by KSEB Ltd for the year 2016-17 vary from is 1466.27 kcal/kg to 3815.56kcal/kg for KDPP, where as for BDPP 1941.45 kcal/kg to 2575 kcal/kg for KDPP.

Objection of the Stakeholders

2.28 Friends of Electricity Employees and consumers (FEEC) in their written comments stated that the cost of generation of power of Rs.23.45 crore is to be given to KSEB Ltd since BDPP and KDPP was scheduled due to special circumstances. The HT-EHT Association has stated that excess auxiliary consumption of diesel stations to the tune of 1.71MU should be decuted at the cost of the stations at the margin.

Provisions in the Regulation

2.29 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

2.30 The Commission did not allow scheduling of generation from the internal liquid fuel stations. However, it can be inferred from the generation pattern of the two LSHS Stations that, the stations were used during April and May 2016. The balance is for small quantity mainly for testing purposes. In this context the Commision is of the view that the KSEB Ltd could explain the reasons for scheduling the diesel plants in the severe shortage months. Hence the fuel cost the plants is approved at actual for the purpose of truing up.

2.31 ***Thus, the Commission approves fuel cost of Rs.23.45 crore for the year 2016-17 as per the truing* up *petition.***

O&M expenses

2.32 KSEB Ltd in their truing up petition has claimed Rs.128.55 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 13

Components of O&M cost of SBU-G

Sl No	Particulars	Approved in suo motu ARR order (Rs. crore)	As per truing up petition (Rs crore)
1	Employee Cost		91.16
2	A&G Expenses		9.69
3	R&M Expenses		27.70
	Total	75.71	128.55

2.33 KSEB Ltd in their Truing up petition also submitted that five new small hydro generating stations having an aggregate installed capacity of 32.1MW was commissioned after the notification of the Regulations. KSEB Ltd stated that O&M expenditure of these stations may be allowed in addition to the normative O&M charges as per Regulations. Accordignly, the O&M expenses for new SHP sations claimed by KSEB Ltd was Rs.6.27 crore.

2.34 In addition to SHPs, KSEB Ltd also sought O&M expenses for solar generating stations with aggregate capacity of 9.10 MW were commissioned after 31-3-2014. The total capital cost was Rs.77.52 crore and the O&M cost is estimated by KSEB Ltd is Rs 0.92 crore.

2.35 Based on the above, components of O&M costs such as employee cost, R&M expenses and A&G expense are analysed separately in the following sections.

Employee Cost

2.36 KSEB Ltd in their truing up petition has claimed the employee expenses of SBU-G as Rs.91.16 crore excluding terminal benefits. Terminal benefits is shown as Rs.81.83 crore. The split up details of employee expenses submitted by KSEB Ltd is given below:

Table 14
Split up details of employee cost and provisions for 2016-17

No	Particulars	Approved in suo motu ARR order (Rs.crore)	Audited (Rs. crore)	As per Truing Up petition (Rs. crore)
1	Basic Salary		123.48	123.48
2	Dearness Allowance (DA)		26.59	26.59
3	House Rent Allowance		1.82	1.82
4	Conveyance Allowance		-	-
5	Leave Travel Allowance		0.02	0.02
6	Earned Leave Encashment		9.70	9.70
7	Other Allowances		4.28	4.28
8	Medical Reimbursement		0.61	0.61
9	Overtime Payment		0.37	0.37
10	Bonus/Ex-Gratia Payments		0.42	0.42
11	Interim Relief / Wage Revision		-	-
12	Staff welfare expenses		0.14	0.14
13	VRS Expenses/Retrenchment Compensation		-	-
14	Commission to Directors		-	-
15	Training Expenses		-	-
16	Payment under Workmen's Compensation Act		-	-
20	**Gross Employee Expenses**		**167.43**	**167.43**
21	Less: Expenses Capitalised		76.28	76.28
17	**Net Employee Costs**	**47.65**	**91.16**	**91.16**

2.37 The total employee expenses excluding terminal benefits booked is Rs.91.96 crore as against the approved cost of Rs.47.65 crore.

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

2.38 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."*

2.39 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 3-9-2018 furnished the following:

> *"It is humbly submitted that the Hon Tribunal was pleased to grant partial relief under employee cost as per judgment in Appeal 1 & 19 of 2013. Accordingly, in order to facilitate implementation of the Hon High Court judgment, KSEBL as per letter dated 06.08.2018 has already submitted full details of employee numbers and cost attributable to the net increased staff strength over 2009. The cost estimation is similar to the approved method in the True up order for 2015-16.*
> *At the same time KSEBL humbly submits that the employee cost as per Truing up petition may kindly be considered in view of the following submission:*
>
> **a.** *The employee cost of KSEBL includes basic salary, DA and other benefits for serving employees and pensioners, terminal benefits etc for retired employees. Employees of KSEBL are recruited through PSC and salary and other benefits including earned leave surrender etc. are provided as per the wage settlement agreement entered into with the trade unions. As per the agreement DA has to be released as and when the same was released by the State Government to its employees,*

pension and other benefits as per the rules in force and also as per the directions of court of law.

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

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

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

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

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

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

Table 1 : Physical addition to major fixed assets between FY 2008-09 and FY 2016-17					
Year	***220 KV Lines***	***110 KV Lines***	***66 KV Lines***	***33 KV Lines***	***11 & 22 KV Lines***
	km	***Km***	***km***	***km***	***km***
2008-09	*2641.86*	*4067.59*	*2161.91*	*1184.78*	*41440*
2016-17	*2801.89*	*4440.3*	*2208.81*	*1867.61*	*59496*
Increase	***6.06 %***	***9.16 %***	***2.17 %***	***57.63 %***	***43.57 %***
Year	***EHT Substations***	***33 KV Substations***	***Step-Up Transformers***	***Step-Down Transformers***	***Distribution Transformers***
2008-09	*218*	*89*	*2465.6 MVA*	*14631 MVA*	*46359*
2016-17	*258*	*144*	*2699.05 MVA*	*19143.4 MVA*	*75579*
% Increase	***18.35 %***	***61.80 %***	***9.47 %***	***30.84 %***	***63.03 %***

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

Table 2 : Consumer strength -Growth between 2008 and 2017			
No	***Consumer strength***	***Numbers***	***Increase***
1	*Number of consumers as on 31-03-2008*	*90.30 Lakhs*	
2	*Number of consumers as on 31-03-2017*	*119.95Lakhs*	*32.84 %*

Table 3 Energy sales- Growth from 2008 to 2017			
No	***Energy sales***	***Energy sale (MU)***	***Increase***
1	*Total energy sale as on 31-03-2008*	*12049.90*	
2	*Total energy sale as on 31-03-2017*	*20452.91*	*69.74 %*

Table 4 Fixed Assets added from 2008 to 2017			
No	***Gross Fixed Assets***	***Amount (Rs. crore)***	***Increase***
1	*Gross Fixed asset as on 31-03-2008*	*8684.55*	
2	*Gross Fixed asset as on 31-03-2017*	*17126.17*	*97.20 %*

2.40 KSEB Ltd further stated that the Hon Tribunal was pleased to grant partial relief under employee cost as per judgment in Appeal 1 & 19 of 2013 and accordingly, in order to facilitate implementation of the Hon High Court Judgment, as per letter dated 06.08.2018 full details of employee numbers and cost attributable to the net increased staff strength over 2009 were furnished. The cost furnished is similar to the approved method in the True up order for 2015-16.

2.41 Thus, KSEB Ltd in its letter dated 6-8-2018 furnished the details of the employee cost booked during the year 2016-17 in respect of those who are recruited after 1-4-2009. KSEB Ltd vide letter dated 6-8-2018 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 10331. KSEB Ltd has also stated that the strength of employees in 2017 was 33264 and that in 2009 was 27175. Thus net the increase in employee strength is 6089, considering the retirements. As per the details furnished by KSEB Ltd, the total amount disbursed for 2016-17 for the net increase in employees (6089 nos) from 2009 (33264-27175) is Rs.217.35 crore.

2.42 Regarding employee expenses, KSEB Ltd stated in the petition that the business activitiy has been continuously increasing over several decades and correspondingly the physical assets have also been increased. The number of employess for maintaing the asset and provide quality supply to consumers have also increased. The increase in employees is primarily in technical areas and it is to be seen that more than 90% increase in number of employees is in the technical and this is warranted essential to maintain the asset and provide quality supply.

2.43 KSEB Ltd submitted that the employee cost includes basic pay, DA and other benefits for serving employees and pensioners, terminal benefits etc.,for retired employees. The employees are recruited through PSC and salalry and other benefits including earned leave surrender etc., are provided as per wage settlement agreement entered into with the trade unions. As per the agreement DA has to be released as and when the same is released by the State Government to its employees pension and other benefits are as per the rules in force and also as per the directions of court of law. KSEB Ltd further stated citing the observation of Apex court in WBERC Vs CESC that KSEB Ltd is not in a position to curtail the employee expense incurred under lawful agreement entered into with workmen. The same has been upheld by the APTEL in the judgment dated 27-4-2016, the actual basic pay as per accounts may be seen as expense that cannot be curtained in the short run.

2.44 In the petition, KSEB Ltd stated that even though the plants of KSEB Ltd is comparatively older than NHPC stations, the approved O&M costs of 12 NHPC stations with total installed capacity of 4015MW is Rs.1196.46 crore for 2016-17 as per Regulation 29(4) of CERC (Terms and conditions of Tariff) Regulations 2014. In comparison with 34 hydro stations fo 2046 MW hydro stations and 2 diesel stations of 159.96 MW comes to only 210.38 crore only. Hence KSEB Ltd requested to allow actual O&M expenses.

2.45 Thus according to KSEB Ltd, the cost attributable to increased staff strength in 2016-17 over 2009 works out to Rs.217.35 crore.

Objection of the Stakeholders

2.46 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 employee cost of the KSEB Ltd is the highest in the Country. They suggested that O&M expenses as per the Regulations only need to be allowed. They also wanted to implement the report prepared by IIM Kozhikode.

Provisions in the Regulations

2.47 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

2.48 KSEB Ltd in their truing up petition has sought Rs.91.16 crore towards employee expenses of SBU-G, which is 4.26% of the total employee expenses of Rs.2139.72 crore excluding terminal benefits for KSEB Ltd.

2.49 As per the provisions of the Regulations, the generation business (SBU-G) was entitled for employee expenses as per norms for 2016-17 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 while specifying the Regulations, the Commission 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. Further the approval of accounts by the Commission as per the Regulations would result in under recovery of reasonable costs through tariff. It was also pointed out before the Hon.High Court that if 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.

2.50 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.

2.51 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.

2.52 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."

2.53 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.

2.54 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."*

2.55 From 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.

2.56 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 considering the manpower levels of 2008-09 only. 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.

2.57 KSEB Ltd vide letter dated 6-8-2018 has furnished the actual disbursement of pay and allowances and pay revision expenses of the employees recruited after 2009. KSEB Ltd vide letter dated 6-8-2018 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 10331. KSEB Ltd has also stated that the strength of employees in 2017 was 33264 and that in 2009 was 27175. Thus net the increase in employee strength is 6089, considering the retirements. As per the details furnished by KSEB Ltd, the total amount disbursed for 2016-17 for the net increase in employees (6089 nos) from 2009 (33264-27175) are Rs.217.35 crore.

2.58 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 of KSEB Ltd is Rs.2139.72crore. As per the details furnished by KSEB Ltd in its letter dated 6-8-2018, the employee cost of additional employees is Rs.217.35 crore. Hence, the allowable expenses excluding terminal benefits for KSEB Ltd is Rs.1922.37 crore (2139.72crore – 217.35 crore). On a pro-rata basis, the employee cost for SBU-G will be 4.26% of Rs.1922.37 crore ie., Rs. 81.89 crore if determined as per the directions of the Hon APTEL and judgment of Hon. High Court of Kerala as shown below.

Table 15
Approved employee cost for SBU-G

	SBU-G (Rs. crore)	KSEB Ltd (Rs. crore)
Net Employee costs as per petition	**91.16**	**2139.72**
Net employee cost of SBU-G as a percentage of KSEB Ltd	4.26%	
Net cost of additional employees as per the letter dated 6-8-2018		217.35
Balance Employee cost		1922.37
Employee cost attributable to SBU-G (1922.37 crore x 4.26%)	**81.89**	

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

Table 16
Employee Cost approved for SBU-G for 2016-17

	As per Petition (Rs. crore)	Approved in the truing up (Rs. crore)
Employee Costs (excluding terminal benefits)	91.16	81.89

2.60 ***The total* employee *cost excluding terminal benefits approved for SBU-G for 2016-17 is Rs.81.89 crore.***

Repair & Maintenance Expenses (R&M)

2.61 KSEB Ltd in their truing up petition has claimed the R&M expenses of SBU-G as Rs.27.70 crore. Split up details of R&M expenses of SBU-G as furnished by KSEB Ltd vide their petition are given below:

Table 17
Split up details of R&M expenses for SBU-G

Particulars	Approved in the suo motu ARR order (Rs. crore)	Audited (Rs.crore)	As per Truing Up petition (Rs. crore)
Plant & Machinery		15.43	15.43
Buildings		2.94	2.94
Civil Works		4.44	4.44
Hydraulic Works		3.04	3.04
Lines & Cable Networks		0.95	0.95
Vehicles		0.56	0.56
Furniture & Fixtures		0.08	0.08
Office Equipment		0.25	0.25
Gross R&M Expenses		**27.7**	**27.7**
Less: Expenses Capitalised		0	0
Net R&M Expenses	**19.83**	**27.7**	**27.70**

2.62 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.

2.63 KSEB Ltd further stated that the total actual R&M expenses increased by just 2.07% over 2015-16 level of expenses (Rs.259.75crore) 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. Thus, KSEB Ltd in their truing up petition claimed Rs.27.70 crore as R&M expenses towards SBU-G.

Provisions in the Regulations

2.64 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.*

2.65 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

2.66 KSEB Ltd had claimed Rs.27.70 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.19.83 crore as against the claim of Rs.27.70crore. 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.

2.67 Thus the R&M expenses approved for the year 2016-17 for SBU-G is as shown below:

Table 18
Approved R&M Expenses for SBU-G 2016-17

	As per truing up petition (Rs.crore)	Approved in the truing up (Rs. crore)
R&M Expenses	27.70	19.83

2.68 ***Hence, the Commission approves the R&M expenses of Rs.19.83crore 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

2.69 KSEB Ltd in their truing up petition had claimed A&G expense of Rs.9.69 crore. The split up details of A&G expenses as shown below:

Table 19
A&G expenses under SBU-G

No	Particulars	Approved in the suo motu ARR order Rs. crore	Audited Rs. crore	As per Truing Up petition Rs. crore
1	Rent Rates & Taxes	NA	6.12	6.12
2	Insurance	NA	0.09	0.09
3	Telephone & Postage, etc.	NA	0.18	0.18
4	Legal charges	NA	0.44	0.44
5	Audit Fees	NA	0.11	0.11
6	Consultancy charges	NA	0.07	0.07
7	Other Professional charges	NA	0.46	0.46
8	Conveyance	NA	3.33	3.33
9	Vehicle Running Expenses Truck / Delivery Van	NA	0.04	0.04
10	Vehicle Hiring Expenses Truck / Delivery Van	NA	0.01	0.01
11	Electricity charges	NA	0.06	0.06
12	Water charges	NA	0.01	0.01
13	Entertainment	NA	0.07	0.07
14	Fees & subscription	NA	0.32	0.32
15	Printing & Stationery	NA	0.33	0.33
16	Advertisements, exhibition publicity	NA	0.55	0.55
17	Contribution/Donations	NA	0.32	0.32
18	Training expenses	NA	0.76	0.76
19	Miscellaneous Expenses	NA	-0.25	-0.25

No	Particulars	Approved in the suo motu ARR order Rs. crore	Audited Rs. crore	As per Truing Up petition Rs. crore
20	DSM activities	NA	0	0
21	SRPC expenses	NA	0.11	0.11
22	Sports and related activities	NA	0.13	0.13
23	Freight	NA	0.88	0.88
24	Purchase Related Advertisement Expenses	NA	0.45	0.45
25	Bank Charges	NA	0	0
26	Office Expenses	NA	7.92	7.92
27	License Fee and other related fee	NA	2.33	2.33
32	Books & periodicals	NA	0.02	0.02
34	Others	NA	0.33	0.33
35	Others- Other Purchase related E	NA	0.49	0.49
36	Others - Expenditure in distribution of	NA	-2.99	-2.99
37	**Gross A&G Expenses**	NA	**22.7**	**22.7**
38	**Ele. Duty u/s 3(I), KED Act**	NA	**0**	**0**
39	Less: Expenses Capitalised	NA	13	13
40	**Net A&G Expenses**	**4.59**	**9.69**	**9.69**

Provisions in the Regulation

2.70 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.

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

Annexure-VII

O&M norms for existing generating stations of generation business of KSEBL

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

2.72 As per the provisions of the Regulations, the allowable A&G expenses for SBU-G for the existing generating stations for 2016-17 is Rs.4.59 crore against the claim of Rs.9.69 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 20

A&G Expenses for SBU-G for 2016-17

	As per truing up petition (Rs.crore)	Approved in the truing up (Rs. crore)
A&G expenses	9.69	4.59

2.73 ***Hence, the Commission approves the A&G expenses of Rs.4.59 crore as per the provisions of the Regulations for the purpose of Truing up for the existing generations of SBU-G for the year 2016-17.***

O&M expenses for new Generating Stations

2.74 KSEB Ltd had sought O&M expenses of new generating stations. New SHPs and solar generating stations were commissioned after the notification of the Regulations. It is examined separately

O&M costs for new Small Hydro Generating Stations

2.75 KSEB Ltd also stated that five hydro stations were commissioned after the 31-3-2014 and requested to allow the O&M costs of these five plants 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: 21

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

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

2.76 As shown above, the KSEB Ltd has claimed Rs.6.27 crore towards the O&M expenses for new SHPs commissioned after 31-3-2014.

2.77 Apart from this, KSEBL had installed and commissioned solar generating plants with aggregate capacity of 9.10 MW after 31-3-2014. Design energy of these plants comes to 12.705MU. Capital cost for these installations is Rs 77.52 crore and teh additional O&M cost sought by KSEB Ltd for such plants is Rs.0.92 crore. The details furnished by KSEB Ltd in the petition are given below:

Table 22

Details of solar energy stations commissioned after 1-4-2014

Project	CoD	Capacity (MW)	Dessign Energy (MU)	**Capital cost (Rs.crore)**	**Addl. O&M cost(Rs.crore)**
Kanjikode	28.08.2015	1.000	1.4016	6.990	0.147978
Chaliyur	31.08.2015	0.096	0.1346	1.0946	0.023173
Peringalkuthu	10.09.2015	0.050	0.07008	0.4375	0.009262
Banasurasagar Floating	21.01.2016	0.500	0.7008	9.250	0.195823
Banasurasagar(tree,flower)	21.01.2016	0.003372	0.00473	0.2517	0.005328
Kollamcode	08.08..2016	1.000	1.4016	6.750	0.09000
Padinjarethara	29.08.2016	0.44	0.56064	4.293	0.050085
Edayar	05.09.2016	1.25	1.752	8.000	0.093333
Palakkad Adivasi colony (5)	30.11.2016	0.047	0.06588	1.080	0.007200
Barapole Canal Bank	07.11.2016	1.000	1.4016	6.750	0.05625
Palakkad Adivasi colony (2)	30.11.2016	0.018	0.02523	0.7608	0.005072
Barapole canal top	17.11.2016	3.000	4.2048	25.983	0.17322
Roof Top various locations	By Mar 2017	0.700	0.9811	5.880	0.05880
Total		**9.100**	**12.705**	**77.5206**	**0.915524**

Objections of Stakeholders

2.78 The HT-EHT Association stated that O&M costs of new stations should only be based on the provisions of the Regulations and suggested that Rs.3.94 crore should be allowed to new SHPs and Rs0.55 crore be allowed to Solar Energy Plants

Provisions in the Regulations

2.79 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."

2.80 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

2.81 In their truing up petition, KSEB Ltd has stated that new generating stations have been commissioned after the notification of the Regulations. 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.

2.82 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. The Commission examined the details furnished by KSEB Ltd for SHPz. The capital capital cost per MW ranges from Rs.5.82 crore to Rs.11.2 crore. The O&M cost sought is about 2.12% of capital cost.

Table 23

O&M costs sought as percentage of capital costs

Project	CoD	Capacity-MW	Capital cost (RS crore)	Cost/MW (Rs.crore)	Addl. O&M cost (crore)	O&M costs sought as % of capital cost
Vilangad	26-07-2014	7.5	75.83	10.11	1.699	2.24%
Chimmony	22-05-2015	2.5	14.58	5.83	0.3086	2.12%
Adyanpara	03-09-2015	3.5	34.38	9.82	0.7278	2.12%
Barapole	29-02-2016	15	127.5	8.50	2.699	2.12%
Vellathuval	08-09-2016	3.6	39.67	11.02	0.8398	2.12%
Total		**32.1**	**291.96**		**6.2747**	

2.83 Similarly, for solar projects also, the O&M costs sought is about 2.12% of the capital cost as shown below:

Table 24

O&M costs as percentage of capital cost for new solar projects

Project	CoD	Capacity (MW)	**Capital cost (Rs.crore)**	Cost/MW (Rs. crore)	**Addl. O&M cost (Rs.crore)**	O&M expenses as % of capital cost
Kanjikode	28.08.2015	1.0000	6.990	6.99	0.148	2.12%
Chaliyur	31.08.2015	0.0960	1.095	11.40	0.023	2.12%
Peringalkuthu	10.09.2015	0.0500	0.438	8.75	0.009	2.12%
Banasurasagar Floating	21.01.2016	0.5000	9.250	18.50	0.196	2.12%
Banasurasagar(tree,flower)	21.01.2016	0.0034	0.252	74.64	0.005	2.12%
Kollamcode	08.08..2016	1.0000	6.750	6.75	0.090	1.33%
Padinjarethara	29.08.2016	0.4400	4.293	9.76	0.050	1.17%
Edayar	05.09.2016	1.2500	8.000	6.40	0.093	1.17%
Palakkad Adivasi colony (5)	30.11.2016	0.0470	1.080	22.98	0.007	0.67%
Barapole Canal Bank	07.11.2016	1.0000	6.750	6.75	0.056	0.83%
Palakkad Adivasi colony (2)	30.11.2016	0.0180	0.761	42.27	0.005	0.67%
Barapole canal top	17.11.2016	3.0000	25.983	8.66	0.173	0.67%
Roof Top various locations	By Mar 2017	0.7000	5.880	8.40	0.059	1.00%
Total		**9.1000**	**77.521**		**0.916**	1.18%

2.84 As shown above, the O&M expenses claimed by KSEB Ltd is uniformly about 2% with escalation considering the date of commissioning. Since the O&M expenses are benchmarked against the capital cost, Regulation 44 (2) (a) shall govern the calculation of this cost. Considering the wide variation in capital costs, 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 new 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*.

2.85 As per Annexure H of KSERC (Renewable Energy) Regulations 2015 and Annexure -1 of The Kerala State Electricity Regulatory Commission (Renewable Energy) Amendment Regulations, 2017, the O&M expenses for SHPs having installed capacity below 5MW is specified as Rs.23.63 lakh per MW for the projects commissioned in 2015-16 and Rs.24.98 lakhs per MW as projects commissioned in 2016-17. In the case of projects of and above 5MW and upto and including 25 MW, O&M expenses for the projects commissioned in 2015-16 is specified as Rs.16.54 lakh/MW. Based on the above provision the O&M expenses (on pro rata basis) for the new SHP stations are estimated as shown below:

Table 25

O&M expenses for new generating Stations

Project	CoD	Capacity-MW	Capital cost (RS crore)	O&M Cost as per Regulations (Rs. crore)
Vilangad	26-07-2014	7.5	75.83	1.31
Chimmony	22-05-2015	2.5	14.58	0.62
Adyanpara	03-09-2015	3.5	34.38	0.87
Barapole	29-02-2016	15	127.5	2.62
Vellathuval	08-09-2016	3.6	39.67	0.45
Total		**32.1**	**291.96**	5.88

2.86 ***Based on the above, the O&M costs for SHPs commissioned after the notification of the Regulations*** is ***Rs.5.88 crore as against Rs.6.27 crore sought by KSEB Ltd.***

2.87 In the case of solar energy projects, KSEB Ltd had sought Rs.0.92 crore as O&M expenses. As in the case of SHPs, for solar energy plants, benchmark O&M expenses are specified as per the concerned Regulations, is Rs.13 lakhs per MW for the plants commissioned in 2014-15 and Rs.7 lakhs per MW for the plants commissioned in 2016-17. Based on this, the O&M expenses estimated for the year for new solar energy plant is as shown below:

Table 26

O&M costs for solar energy projects for the year 2016-17

Project	CoD	Capacity (MW)	**Capital cost (Rs.crore)**	O&M expenses (Rs. Lakhs)
Kanjikode	28.08.2015	1.0000	6.990	13.74
Chaliyur	31.08.2015	0.0960	1.095	1.32
Peringalkuthu	10.09.2015	0.0500	0.438	0.69
Banasurasagar Floating	21.01.2016	0.5000	9.250	6.87
Banasurasagar(tree,flower)	21.01.2016	0.0034	0.252	0.05
Kollamcode	08.08..2016	1.0000	6.750	4.08
Padinjarethara	29.08.2016	0.4400	4.293	1.80
Edayar	05.09.2016	1.2500	8.000	4.38
Palakkad Adivasi colony (5)	30.11.2016	0.0470	1.080	0.11
Barapole Canal Bank	07.11.2016	1.0000	6.750	2.33
Palakkad Adivasi colony (2)	30.11.2016	0.0180	0.761	0.04
Barapole canal top	17.11.2016	3.0000	25.983	7.00
Roof Top various locations	By Mar 2017	0.7000	5.880	-
Total		**9.1000**	**77.521**	**42.41**

2.88 The O&M costs for solar energy projects for the year 2016-17 as per the Regulations is Rs.0.42 crore as shown above.

2.89 ***Thus, the total O&M*** expense ***for new SHPs and Solar energy stations approved for the year 2016-17 is Rs.6.30 crore (Rs.5.88 crore+Rs.0.42 crore).***

Summary of O&M expenses excluding Terminal Benefits

2.90 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 2016-17

	As per truing up petition (Rs. crore)	Approved in Truing up (Rs. crore)
Employee Costs (Excluding terminal benefits)	91.16	81.90
R&M Expenses	27.70	19.83
A&G expenses	9.69	4.59
O&M Expenses for New stations		.6.30
Total O&M Expenses	**128.55**	**112.61**

2.91 ***Thus as per the*** Regulations***, total O&M expenses, excluding terminal benefits approved for SBU-G as per the Regulations is Rs. 112.61 crore as shown above.***

Terminal benefits

2.92 KSEB Ltd in their truing up petition for SBU-G has sought Rs.81.83 crore towards payment of terminal benefits to retired employees during 2016-17. The total terminal benefits as per the petition is Rs.1221.06 crore for KSEB Ltd.

Objections of Stakeholders

2.93 The HT-EHT Association stated that terminal benefits as per the petition shall not be approved and in the case of terminal benefits only the interest on bonds issued to master Trust only be allowed. The Friends of Electricity Consumers pointed out that in the absence of issue of bonds to Master Trust, the terminal benefits as per the accounts should be allowed.

Provisions in the Regulations

2.94 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

2.95 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.

2.96 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]

2.97 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.

2.98 KSEB Ltd in their truing up petition has indicated Rs.1221.06 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 did not 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.

2.99 The Commission in the ARR&ERC order for 2014-15 had allowed an amount of Rs.814.40 crore for funding the terminal benefits. In the truing up of accounts for 2015-16, the Commission has taken a decision to allow Rs.814.40 crore towards 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.

2.100 In the Truing up for 2015-16, amount equivalent to the interest on Master Trust ie., Rs.814.40 crore is approved 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. Accordingly, the Commission in this year also approves the terminal benefits as Rs.814.40 crore. KSEB Ltd shall make up the balance amount of Rs.406.66 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.

2.101 Out of the total Rs.814.40 crore allowed for funding the terminal benefits from the funds of KSEB Ltd for the year 2016-17, the apportionment of expenses towards the share of SBU-G shall be (in proportion to their ratio among the three SBUs) Rs.54.58 crore against the full claim of Rs.81383 crore by KSEB Ltd in the truing up.

Table 28

Terminal benefits approved for 2016-17

	As per truing up Petition (Rs. crore)	Approved in truing up (Rs. crore)
KSEB Ltd		
Terminal benefits as per petition	1221.06	1221.06
Contribution of Government		406.66
Contribution through Truing up		814.40
Total Terminal benefits	1221.06	1221.06
SBU-G		
Share of Terminal benefits for SBU-G	81.83	
Contribution of Government		27.25
Contribution through Truing up		54.58
Total Terminal benefits	81.83	81.83

2.102 ***As shown*** above***, the terminal benefits of Rs.81.83 crore is approved for SBU-G and out of this Rs.54.58crore is allowed in the truing up and the balance is to be met from the contribution from the Government***.

Interest and financing charges

2.103 The total interest charges claimed by KSEB Ltd was Rs.946.21 crore for the year 2016-17. KSEB Ltd in their truing up petition, apportioned Rs.50.05 crore as the interest charges towards SBU-G, as against the approved interest charges of Rs.220.84 crore as shown below:

Table 29

Interest and financing charges for 2016-17

No	Particulars	Approved in the Suo motu order (Rs. crore)	Actual As per truing up petition (Rs. crore)
1	Interest on Outstanding Capital Liabilities	171.62	50.05
2	Interest on GPF	6.76	...
3	Other Interests	0.52	...
4	Interest on Master Trust Bonds	41.94	...
5	**Total**	**220.84**	**50.05**

2.104 In the suo motu ARR order, the Commission approved the interest charges for SBU-G at Rs.220.84 crore considering Rs.1560.18 crore as the loan at the end of 31-3-2016 based on the GFA of SBU-G as on 31-10-2013 and the interest at the rate at 11%. Further, the Commission has also approved the interest on Master trust in lieu of terminal benefits.

2.105 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

2.106 The Commission notes that KSEB Ltd has obtained long term borrowing on gross basis and thereafter allocated the amounts to the three SBUs. In the petition, KSEB Ltd stated that SBU wise interest as per accounts and the petition was differ as the method of apportionment differ. The basis of apportionment of loans and interest among SBUs in the account are shown as below:

Table 30

Basis of apportionment of interest charges

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

2.107 The total the long term borrowings of KSEB Ltd during 2016-17 is shown in the Table below;

Table 31

Interest charges for Loans and advances for 2016-17

	Loans as on 31-3-2016 as per accounts	Loans as on 31-3-2017 as per accounts (Rs.crore)	Interest charges for 2016-17 (Rs. crore)
Secured loans-Term loans	1853.51	4536.92	
Ind AS adjustments		-269.66	
Net Loans	1853.51	4267.26	209.99
Unsecured Loan term loans	1900.00	1887.50	192.07
Fair value adjustments			33.73
Total	**3753.51**	**6154.76**	**435.79**

2.108 The above table reveals that the total loan outstanding as on 31-3-2017 for KSEB Ltd was Rs.6154.76 crore. Of this outstanding loan, Rs 4267.26 crore is classified as secured long term loans and Rs.1887.50 crores as unsecured. In the interest charges, Rs.33.73 crore was adjusted against the fair valuation as per Ind AS.

2.109 Regarding the adjustments made in the interest charges on account of IndAS, KSEB Ltd vide letter dated 3-9-2018 has furnished the following details.

Table 32

Adjustment entries made towards interest and financing charges

No	Particulars	2016-17 Rs. crore
1	Fair value amount is higher than the actual interest rate, so the difference is debited to the profit and loss account through FVA A/c	33.35
2	Fair value of loan is lesser than the carrying amount, hence the difference is credited through FVA A/c	10.25
3	Difference between the fair value of interest (on the loans discounted @ IRR) and actual interest is adjusted in the profit and loss account.	0.37
	Fair value amount is higher than the actual interest rate, so the difference is debited to the profit and loss account through FVA A/c (for Loan Advanced by KSEB)	0.01
	Less :	
4	Fair value of grant is higher than the carrying amount, hence the difference would be debited in the FVA A/c	10.08
5	Difference between the fair value of interest (on the loans discounted @ IRR) and actual interest is adjusted in the profit and loss account.	
	TOTAL	**33.90**

2.110 As per the details furnished by KSEB Ltd the outstanding loan as on 31-3-2016 was Rs.3753.51 crore and the net addition in loan was Rs.2400.56 crore in 2016-17. Out of this there was special addition of loans from PFC and REC to the tune of Rs.1250 crore each in 2016-17. Correspondingly, there was a decrease in the overdrafts, as the opening balance of overdrafts was Rs.2171.94 crore and the closing balance was Rs.666.16 crore in the year 2016-17 showing a decrease of Rs.1505.78 crore.

2.111 In order to service these long term loans, KSEB Ltd in their truing up petition had claimed Rs.435.79 crore as interest charges out of the total Rs.1024.55 crore towards total finance cost for 2016-17. The interest and finance charges capitalized for the period was Rs.64.63 crores, resulting in a net interest and financing charges of Rs.946.21 crores.

2.112 As per the petition, against total long term loan of Rs.6154.76 crore, KSEB Ltd has apportioned Rs.1795.56 crore towards SBU-G. In order to service this long term loan, KSEB Ltd in their truing up petition have apportioned Rs.50.05 crore towards interest and financing charges for SBU-G. That is only interest on long term loan has been claimed towards SBU-G. The apportionment of normative loans and average rate of interest claimed by kSEB Ltd for SBU-G as per the petition is given below:

Table 33

Normative loan and average rate of interest for SBU-G for 2016-17

Particulars	Approved in the suo motu ARR order (Rs. crore)	Audited accounts (Rs. crore)	As per Truing Up petition (Rs. crore)
Gross Normative loan – Opening			
Cumulative repayment of Normative Loan up to previous year			
Net Normative loan – Opening	NA	923.27	923.27
Increase/Decrease due to ACE/de-capitalization during the Year	NA	1887.35	1887.35
Repayments of Normative Loan during the year	NA	(953.28)	(953.28)
IND AS Adjustment	NA	(61.78)	(61.78)
Average Normative Loan	NA	1795.56	1795.56
Weighted average Rate of Interest of actual Loans	NA	7.23	7.23

2.113 As shown above, KSEB Ltd has claimed interest charges for long term and short term loans duly incorporating the Ind AS adjustments. The average rate of interest for the loans estimated by KSEB Ltd for SBU-G was 7.23%.

2.114 However, as part of the clarifications sought by the Commission, KSEB Ltd in its letter dated 3-9-2018 stated that that two additional loans were secured by KSEB Ltd to the tune of Rs 1250 crore each from PFC and REC respectively at the fag end of the financial year 2016-17 (on 30th and 31st of March 2017) at a rate of interest of 9.08%. Hence, according to KSEB Ltd the closing balance of loans as on 31.03.2017 is heavily impacted and the average rate of interest would be worked out to be 10.90% if the impact of these loans were considered.

Accordingly KSEB Ltd had furnished the following calculation for the average rate of interest

Table 34

Average rate of interest worked out by KSEB Ltd as per letter dated 3-9-2018

Item	Openign balance of loans 01.04.2016 (Rs. crore)	Addition (Rs. crore)	Repayments (Rs.crore)	IND AS adjustments (Rs. crore)	Closing balance as on 31.03.2017 (Rs.crore)	Interest charges (Rs.crore)	Average rate of interest (%)
LT Loans (excl 2500 crore)-A	1,853.51	2,871.77	189.03	269.66	1,766.57	209.06	**11.55**
ST Loans-B	1,900.00	2,875.00	2,887.50	-	1,887.50	192.07	**10.14**
Loans (A+B)	**3,753.51**	**5,746.77**	**3,076.53**	**269.66**	**3,654.07**	**401.13**	**10.83**
Add:Loan from PFC -1 day	-	-	-	-	1,250.00	0.31	**0.02**
Add:Loan from REC-2 days	-	-	-	-	1,250.00	0.62	**0.05**
Ind As adjustments						33.73	
Total	**3,753.51**	**5,746.77**	**3,076.53**	**269.66**	**4,904.07**	**435.48**	**10.90**

2.115 KSEB Ltd however, did not provide the SBU wise details of average interest rate while revising the rates.

Objection of stakeholders

2.116 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 projects

2.117 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.196.06 crore on account of interest for CWIP of Rs.1782 crore at a rate of Rs.11% should be disallowed from the interest on long term loans.

2.118 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

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

2.120 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.

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

2.121 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

2.122 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.

2.123 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.

2.124 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.

2.125 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. KSEB Ltd in their petition has estimated the average rate of interest for the year 2016-17 for SBU-G at 7.23%. However as part of the clarifications, KSEB Ltd revised the claim on the average rate of interest stating the reason that additional loans to the tune of Rs.1250 crore were availed from REC and PFC at the fag end of the year, which would heavily impacted the estimation of the average rate of interest. Hence KSEB Ltd furnished separate calculation of average rate of interest as give above to show that average rate of interest is 10.90%. KSEB Ltd also furnished the details of all the loans availed during the year and the outstanding at the end of the year including the interest charges for each loans.

2.126 The Commission examined the details furnished by KSEB Ltd on the average rate of interest. The Commission also notes that though the KSEB Ltd in the petition claimed Rs.50.56 crore as interest charges, the Forms annexed to the petition, the interest charges claimed is Rs.97.37 crore including Ind AS adjustments. It is true that KSEB Ltd has availed loans from REC and PFC, one and two days prior to the close of the financial year. The Commission also notes that while estimating the interest charges and outstanding loans, KSEB Ltd has taken into consideration the Ind AS adjustments in the loans while the adjustments in the interest charges have been excluded. Considering the these anomilies in working out the average rate of interest by KSEB Ltd, the Commission has estimated the average rate of interest of the actual loan portfolio as shown below:

Table 35
Details of weighted average rate of interest for 2016-17

	Opening Balance (Rs. crore)	Closing Balance (Rs. crore)	Average loan (Rs. crore)	Interest Charges (Rs. crore)	% share	Average Rate of Interest (%)	Weighted average Rate (%)
Long Term Loans	1,853.51	2,036.25	1944.88	209.06	50.5%	10.75%	5.43%
Short Term loans	1,900.00	1,887.50	1893.75	192.07	49.2%	10.14%	4.99%
Loan from PFC -1 day	0.00	1,250.00	3.42	0.31	0.1%	9.05%	0.01%
Loan from REC-2 days	0.00	1,250.00	6.85	0.62	0.2%	9.05%	0.02%
	3753.51	6423.75	3,848.90	402.06	100.0%		10.45%

2.127 The opening level of loans as per the accounts is Rs.3753.51crore and closing balance before the Ind AS adjustments is Rs.6423.75 crore. The interest charges for loans for the year 2016-17 as per the accounts excluding fair value adjustments is Rs.402.06 crore (Rs.435.79 crore- Rs.33.73 crore). Considering the loans taken at the end of the year, the weighted average rate of interest works out to be 10.45% per annum.

2.128 The interest charges allowable for the year 2016-17 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.

2.129 The Commission has arrived at the normative loan as per the Regulations for the year 2016-17 as shown below:

Table 36
Normative existing loans for the year 2016-17

		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
5	Repayment equivalent to depreciation for the year	334.87
6=4-5	Normative loan as at the end of the year	1,941.30
7	Addition to loans in 2015-16	380.08

8=6+7	**Opening levels of Loan (as on 1-4-2016)**	**2,321.38**
9	Repayment for the year 2016-17 (Depreciation)	369.87
10=8-9	**Closing level of loans (31-3-2017)**	**1,951.51**
11=(8+10)/2	Average loan	2,136.45
12	Weighted Average rate of Interest	10.45%
13=11x12	Interest charges (existing normative loan)	223.26

2.130 The Commission in the turing up order for 2015-16 had arrived at, for the purpose of estimating the normative loans, the net fixed assets as on 1-4-2015 as Rs.8483.82 crore. After deducting the souces of funding such as grants and contribution and equity, normative loan as on 1-4-2015 was Rs.2276.17 crore. After deducing the normative repayment equivalent to the depreciation, the net normative loan at the end of 2015-16 was Rs.1941.30 crore. The addition to normative loan ie., net increase in fixed assets excluding grants and contribution, was Rs.380.08 crore. Thus closing level of normative loan (31-3-2016) was Rs.2321.38 crore.

2.131 The normative repayment for the year 2016-17 was equivalent to the depreciation is Rs.369.87 crore and the closing level loans is Rs.1951.51 crore. The weighted average rate of interest on the actual loan portfolio is 10.45% and the interest on existing normative loan is estimated as Rs.223.26 crore.

2.132 ***The interest charges so arrived at is apportioned based on the gross fixed assets among SBUs and accordingly for SBU-G, the interest on existing normative loan is Rs.64.56 crore.***

Table 37
Apportionment of interest charges for loans

	SBU-G	SBU-T	SBU-D	KSEB Ltd
GFA as on 31-3-2016 (Rs. crore)	**4,440.85**	**4,309.46**	**6,607.19**	**15,357.50**
Share of GFA)%)	28.92%	28.06%	43.02%	100.00%
Interest charges based on share of GFA (Rs. crore)	64.56	62.65	96.05	223.26

Inerest charges for addition to loans

2.133 Interest charges for the addition to loans is allowed based on the addition to the assets made during the year and its funding requirements. The provisions in the Regulations are given below:

Provisions in the Regulation

2.134 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.

2.135 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.

Analysis and decision of the Commission

2.136 As per information furnished by KSEB Ltd in their petition, total assets addition for the year 2016-17 is Rs.1768.66 crore. In this context it is to be noted that the Commission had in the letter dated 23-4-2018 had directed KSEB Ltd to submit the details of capital expenditure made under generation, transmission and distribution with full details as per the provisions of the Regulations during the truing up process. However, KSEB Ltd did not furnish the details as required. In reply KSEB Ltd vide letter dated 3-9-2018 had stated that the details of capital expenditure and the assets capitalized are included in the appendix 5.2 of the Petition. The summay of the details furnished by KSEB Ltd in the petition is as given below:

Table 38

Details of expenditure capitalized during 2016-17

Brief Description of Project	Total Cost as on 01.04.2016 (Opening CWIP) Rs. crore	Cost Incurred During the year (Rs. crore)	Addition to capital assets (Rs. core)	Balance CWIP at the end of 31.03.2017 (Rs. crore)
Generation	1,112.10	176.56	450.22	838.44
Transmission	495.7	280.04	410.19	365.55
Distribution	501.36	1,122.80	908.25	715.91
Total	2,109.16	1,579.40	1,768.65	1,919.90

2.137 The Commission examined the details furnished by KSEB Ltd. The total asset addition during the year is Rs.1768.65 crore, which is the difference between the closing value of GFA (less revalued assets) as on 31-3-2017 ie., Rs.17126.17 crore and the opening value of GFA of Rs.15357.52 crore). The asset addition furnished by KSEB Ltd of Rs.1768.65 crore in 2016-17, is a substantial amount comparing to the asset additioins made in the previous years. In 2013-14, the asset addition was Rs.798.20 crore, whereas in 2014-15 the asset addition is Rs. 1128 crore. In 2015-16, the asset addition as per the accounts was Rs.738.44 crore. As per the details, it appears that as part of the first time adoption of Ind AS accounts, KSEB Ltd had tried to clear the expenditure booked under CWIP to assets.

2.138 In this context, it is pertinent to mention that the Commission vide letter dated 23-4-2018 had directed KSEB Ltd to furnish the details of capital expenditure under generation, transmission and distribution with full details as per the provisions of Regulations during the truing up process. However, KSEB Ltd failed to furnish the details as directed by the Commission as part of the truing up petition. KSEB Ltd furnished only broad items of capitalization under each projects for generation and on a composite basis for transmission and distribution. KSEB Ltd could not provide the details of components of each project, the funding pattern including that of loans, grants and equity. The details such as sanctioned cost, actual cost of the projects, delays if any and delays beyond the control of KSEB Ltd etc., were also not provided. Further, the details regarding material cost, interest during construction, expenses such as employee cost and A&G expenses capitalized etc., for the assets were also not provided. It could not be ascertained with the available information whether the projects capitalized are complete in all respects and put into use. In the absence of the details provided by KSEB Ltd , the Commission is not in a position to examine the prudence of the capital expenditure addition made during the year and also consider the requirement of normative loans and interest thereon for assets added during the year 2016-17.

2.139 ***Under these circumstances, the Commission is of the considered view that till such time,*** **complete** ***information on the capital expenditure is furnished as per the provisions of the Regulations, the approval of addition to capital expenditure and consequently the interest amount to be considered for the year is to be deferred. The details to be furnished are essential part of the Regulation formats. As soon as the required information is furnished, the Commission may consider the same for the approval.***

2.140 Accordingly, the interest charges for normative loan for the addition to assets are deferred. Thus, the total interest charges for loans approved for the purpose of truing up is as shown below:

Table 39
Interest charges on loans for the year 2016-17

	SBU-G (Rs.crore)	SBU-T (Rs.crore)	SBU-D (Rs.crore)	KSEB Ltd (Rs.crore)
Interest on Existing loans	64.56	62.65	96.05	223.26
Interest on Addition to loans*	-	-	-	-
Total Interest charges on loans	**64.56**	**62.65**	**96.05**	**223.26**

*Deferred due to want of details

2.141 ***As shown*** **above*****, the interest charges on the loans for SBU-G for the year 2016-17 is Rs.64.56 crore***

Overdrafts

2.142 KSEB Ltd in their truing up 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 2016-17 and interest charges of Rs. 248.94 crore was paid on overdraft.

2.143 However, KSEB Ltd did not provide SBU wise details of utilization of overdrafts. 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 separately.

Interest on working capital

2.144 In their truing up petition, KSEB Ltd has not claimed any interest on working capital. However, in Form G.6.11 KSEB Ltd has furnished the interest on normative working capital as Rs. 15.45 crore for SBU-G. However, as part of the clarifications, vide letter dated 3-9-2018, KSEB Ltd has furnished the following details.

Table 40
Interest on working capital sought by KSEB Ltd for SBU-G

Particulars	**Liquid fuel (Rs.crore)**	**Hydro (Rs.crore)**	**Total (Rs.crore)**
Installed Capacity (MW)	159.96	2046.16	2206.12
Cost of liquid fuel	23.45		
Cost of liquid fuel for 1 month	1.954167		
O&M Exp for 1 month	1.179215	15.08416	
Mace spares @ 1% of Historical Cost	3.219937	41.18846	
Total	6.353319	56.27262	
Base rate as on 1-4-2016	9.35%	9.35%	
Interest rate on Working Capital	11.35%	11.35%	
Interest on Working Capital	**0.721102**	**6.386943**	**7.11**

2.145 As per the details furnished in the petition, estimate of interest on normative working capital for the year for SBU-G is Rs.7.11 crore based on the interest on working capital taken at 11.35%.

Objections of the Stakeholders

2.146 Friends of Electricity consumers pointed out that interest on overdraft should be allowed to KSEB Ltd since there is large uncovered revenue gap.

2.147 Regarding interest on overdraft from the Banks, the Association pointed out that the claim of 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.

2.148 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 is 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.”*

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

Provisions in the Regulations

2.150 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

2.151 As per the provisions of the Regulations, interest on working capital is allowed on a normative basis for each business separately. The Commission has carefully examined the details furnished by KSEB Ltd. Regulation 33 requires the Commission to estimate the interest on working capital for liquid fuel based generating station and for hydro-electric stations separately. Accordinng to KSEB Ltd the interest on working capital is Rs.7.11 crore for SBU-G

2.152 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 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.

2.153 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.*

2.154 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.

2.155 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.

2.156 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 2016-17	- Rs.23.45 crore
O&M expenses of SBU-G for 2016-17	- Rs.112.63 crore
Historical cost of Assets of SBU-G	- Rs.4440.85 crore
Base rate of SBI as on 1-4-2016	- 9.3%
Interest on working capital (base rate+2%)	-11.3%
Installed capacity of LSHS Stations	- 159.96MW
Installed capacity of Hydel stations	- 2049.76MW

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

Table 41
Interest on working capital approved for SBU-G

	LSHS Stations	Hydro	Total for SBU-G
	(Rs. crore)	(Rs. crore)	(Rs. crore)
Cost of fuel for one month	1.95	-	
O&M expenses for one month	0.68	8.71	
Cost of maintenance of spares 1% of historical cost	3.21	41.20	
Total Normative Working capital Requirement	**5.84**	**49.91**	55.75
Base rate as on 1-4-2015	9.30%	9.30%	9.30%
Interest rate on working capital	11.3%	11.3%	11.3%
Interest on working capital	**0.66**	**5.64**	**6.30**

2.158 ***As shown above, the*** interest ***on working capital approved for SBU-G is Rs.6.30crore for the year 2016-17***

Interest on security deposits

2.159 ***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

2.160 As per petition, KSEB Ltd has accounted the the interest paid on GPF subscription under SBU-D. Hence no interest on GPF is claimed for SBU-G

Other interest charges

2.161 Other interest charges paid is inclusive of guarantee commission and bank charges. The other interest charges booked by KSEB Ltd for the year was Rs.17.62 core as against Rs.10 crore approved in the ARR. Of this, Rs.16.76 crore was accounted towards interest on power purchase bills and Rs.0.86 crore was disclosed under other charges including guarantee charges payable to the Government. Other interest charges allocated to SBU-G is Rs.0.52 crore.

2.162 ***After considering the*** details***, the other interest charges is approved as claimed in the petition for SBU-G.***

Summary of Interest and financing charges

2.163 A summary of the approved interest and finance charges of SBU-G is shown in the Table below:

Table: 42
Summary of Interest charges allowable for SBU-G

No	Particulars	**Approved in** suo motu ARR order **(Rs. crore)**	**As per accounts/petition (Rs.crore)**	**Approved in Truing up (Rs.crore)**
1	Interest on Outstanding Capital Liabilities*	171.62	50.05	64.56
2	Interest on GPF	6.76	...	-
3	Other Interests	0.52	...	0.52
4	Interest on Master Trust Bonds	41.94	...	-
	Interest on workign capital			6.30
5	**Total**	220.84	50.05	71.38

**Excluding interest charges for addition to assets, which is deferred*

2.164 ***Based on the submissions of KSEB Ltd and its due consideration the Commission approves*** the ***total interest and financing charges for the year 2016-17 for SBU-G as Rs.71.38 crore.***

Depreciation

2.165 The Commisison has approved depreciation for the year 2016-17 as Rs.172.43 crore. In their truing up petition, KSEB Ltd has claimed Rs.188.79 crore for SBU-G, which is different from the audited accounts. Depreciation for KSEB Ltd as per the Accounts is Rs.718.88 crore and as per the petition is Rs. 617.51 crore.

2.166 In the audited accounts KSEB Ltd has made adjustments for Ind AS transition. Further, the depreciation as per the accounts is made using the CERC rates for the entire assets without considering the vintage of assets. This has resulted overstatement of depreciation in the accounts as against the provisions of the Regulations. Since the depreciation as per the accounts violates the provisions of the Regulations, KSEB Ltd had worked out depreciation separately for the purpose of truing up in the petition.

2.167 KSEB Ltd in the petition stated that during the course of audit, for 2016-17, detailed examination of CWIP was carried out and completed works lying under CWIP were identified. Accordingly a sum of Rs.414.82 crore (Rs.201.40 crore for 2014-15 and Rs.282.73 crore upto 2015-16) has been capitalized in line with the first time adoption of Ind AS 101. Detailed asset class wise asset addition is given below:

Table 43

Asset class wise addition on account of Ind AS adjustments

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

2.168 As shown above, KSEB Ltd as part of the Ind AS adjustments, retrospectively added assets for the year 2014-15 and 2015-16. The depreciation as per the peititon includes the depreciation for asset additions made for the year 2014-15 and 2015-16 on account of Ind AS adjustments.

2.169 In reply to the query of the Commission on the grants and contribution received from the Government for generation, KSEB Ltd has furnished that grants from MNRE, Government of India to the tune of Rs.31.23 crore was received as shown below:

Table 44

Details of grants received from MNRE, Government of India for generation projects

No	Project	Date of Receipt	Amount (Rs. crore)
1	Adyanpara SHP	31-07-2013	0.88
		01-03-2016	1.05
		30-03-2017	1.23
		TOTAL	**3.15**
2	Barapole SHP	29-12-2010	2.03
		13-08-2014	2.43
		29-09-2015	2.84
		TOTAL	**7.29**
3	Chimeney SHP	25-09-2012	0.78
		25-09-2014	0.93
		18-03-2016	1.09
		TOTAL	**2.79**
4	Poringalkkuthu	19-12-2017	**18.00**
	Total		31.23

2.170 In addition to the above, grants received from State Government for Solar power plants is as shown below:

Table 45
Grants received from State Government for Solar projects

No	Month	Amount (Rs.crore)
1	April – 2015	1.20
2	November 2015	0.30
3	March 2016	0.55
4	June – 2016	1.21
	Total	**3.26**

2.171 KSEB Ltd further stated that the amounts received towards MNRE Grants were accounted under (account code 55201) *Subsidies towards cost of capital assets from Government of India*. Amount received for Solar plant were accounted under (account code 55313) *Grant received from state Government – Solar Power Plant*. These receipts were inadvertently disclosed under Distribution SBU in the truing up petition.

2.172 KSEB Ltd in their petition estimated the depreciation as per the provisions of the Regulations as shown below:

Table 46
Depreciation claimed by KSEB Ltd for 2016-17

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

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

Table 47

Apportionment of depreciation among SBUs

SBU	**GFA as on 31.03.2016* Rs. Crore**	**% of GFA**	**Depreciation (Rs. crore)**
SBU G	4440.85	30.57	188.79
SBU T	4309.46	29.67	183.20
SBU D	5775.14	39.76	245.51
Total	14525.45	100	617.51

** excluding value enhancement*
*** the value of GFA furnished by KSEB Ltd in the Table (Rs.14525.45 crore) is different from value of GFAused for estimation of depreciation (Rs.15357.52 crore)*

Objections of the stakeholders

2.174 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.380.40 crore only, instead of Rs. 617.51 crore as claimed in the petition.

Provisions in the Regulations

2.175 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."

2.176 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 y he 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

2.177 In contrast to the previous years' accounts, it appears that KSEB Ltd has accounted depreciation in the accounts using the higher rates applicable to the first 12 years of commissioning of assets, for the entire assets thereby overstating the depreciation. This was done as part of the restatement of accounts for Ind AS compliance. The depreciation as per the books of accounts for the year 2015-16 was Rs.491.23 crore, where as the depreciation for the year 2016-17 as per the accounts is Rs.718.88 crore showing an increase of Rs.227.65 crore. The asset addition for the year 2015-16 including the Ind AS adjustments was only Rs.1021.16 crore (Rs.738.43 crore + Rs.282.73 crore for Ind As adjustments) showing that the depreciation booked in 2016-17 is higher than the rates notified. By doing so, KSEB Ltd has violated provisions of the Regulations for accounting depreciation and also not properly accounted depreciation for the assets older than 12 years.

2.178 The Commission notes that as per the provisions of the Electricity Act 2003 and the Tariff Policy, the depreciation rates specified by the Commission shall be used for the purpose of tariff determination as well as for accounting purposes. There is a specific provision applicable to the companies engaged in the generation, transmission and distribution of electricity to follow the provisions of the Electricity Act. Accordingly, for the purpose of depreciation, KSEB Ltd should have used the provisison of the Regulations for accounting depreciation. The Commission views such lapses seriously.

2.179 Since the depreciation as per the accounts is in violation of the provisions of the Regulations, KSEB Ltd has devised a methodology for estimating the depreciation in the petition. In both the versions ie., in the accounts as well as in the petition, the depreciation arrived at is not as per the provisions of the Regulations and cannot be used for the purpose of truing up.

2.180 In the absence of correct depreciation for the assets in line with the provisions of the Regulations, the Commission has no other alternative, but to resort to estimating the depreciation as per the provisions of the Regulations for the purpose of truingup. The Commisison in the truing up of Accounts for the year 2015-16, have allowed the depreciation as per the provisison of the Regulations by removing the depreciation on the assets created out of consuer contribution and grants from the depreciation booked in the accounts. Depreciation was also not allowed for revalued assets as per the provisions of Regulations.

2.181 The Commisison thus, allowed depreciation of Rs.334.87 crore for the year 2015-16. In the absence of proper depreciation figures as per the provisions of the Regulations for the year 2016-17, the Commission is of the view that for the purpose of truing up, depreciation allowed for 2015-16 along with depreciation for the addition of assets for the year 2015-16 be the depreciation for the year 2016-17. This is done since the depreciation is accouted on a straight line method. The Commission is also aware that while using such methodology, the depreciation will be overestimated since there is always a portion of assets which complete 12 years and the depreciation for such assets will be spread out for the balance useful periods.

2.182 *In this context it is also pertinent to mention that the Commission considered the asset additioin of Rs.1021.16 crore for the year 2015-16 for the purpose of depreciation, which is inclusive of the asset addition of Rs.282.73 crore made as part of the adjustments on account of Ind AS adoption. The Commission has excluded this portion of addition to assets while approving the interest and financing charges for want of the proper details furnished by KSEB Ltd. Thus, while approving the interest charges subsequently, on submission of the details, revision if any on the addition to assets, the corresponding adjustment if any needed in depreciation will also be carried out.*

2.183 Accordingly, the depreciation allowable for the year 2016-17 is worked out as shown below:

Table 48

Depreciation for the year 2016-17

		SBU-G (Rs. crore)	SBU-T (Rs. crore)	SBU-D (Rs. crore)	KSEB Ltd (Rs. crore)
1	**Depreciation allowed in 2015-16**	**122.05**	**132.84**	**79.98**	**334.87**
2	Asset Addition 2015-16	34.79	212.24	491.40	738.43
3	Ind AS addition	13.32	81.26	188.15	282.73
4=2+3	**Total Asset Addition in 2015-16**	**48.11**	**293.50**	**679.55**	**1,021.16**
5	Less Contribution & Grants 2015-16		12.02	346.33	358.35
6=4-5	*Balance value of assets added*	*48.11*	*281.48*	*333.22*	*662.81*
7=6x5.28%	Depreciation for assets added in 2015-16 (@ 5.28%)	2.54	14.87	17.59	35.00
8=1+7	**Depreciation for 2016-17**	**124.59**	**147.71**	**97.57**	**369.87**

2.184 The depreciation allowed for the year 2015-16 was Rs.334.87 crore for KSEB Ltd as a whole and Rs.122.05 for SBU-G. The asset addition for the year 2015-16 was Rs.1021.16 crore for the KSEB Ltd as a whole including the asset addition on account of Ind AS adjustments. The total value of grants and contribution for the year 2015-16 was Rs.358.35 crore for KSEB Ltd as a whole. Thus the net addition of assets eligible for depreciation is Rs.662.81 crore for KSEB Ltd as a whole. The depreciation for the addition of assets at an average rate of 5.28% is Rs.35 crore. The same is allocated to SBUs based on the addition of assets to assets and for SBU-G is Rs.2.54 crore. Thus the total depreciation for KSEB Ltd as whole for the year was Rs.369.87 crore and that of SBU-G is Rs.124.59 crore.

Table 49

Depreciation approved for SBU-G the year 2016-17

	Approved in the ARR (Rs. crore)	As per the petition (Rs. crore)	Approved for truing up (Rs. crore)
Depreciation	172.43	188.79	124.59

2.185 ***The Commission approves the depreciation of Rs.124.59 crore for SBU-G for the purpose of truing up as against the claim of Rs.188.79 crore.***

Other expenses:

2.186 Other expenses included other debits, fair value adjustments, 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 the petition for SBU-G is Rs.41.16 crore. The details are given below:

Table 50

Other expenses for SBU-G

	Rs. crore
Other expenses	0.35
Prior period expenses	41.76
Fair value adjustments as per Ind AS	(-)0.95
Total	41.16

Analysis and decision of the Commission

2.187 The main item under the head is prior period expenses of Rs.41.76 crore, which is on account of pay revision expenses.ie, the pay revision due from July/August 2013 was disbursed in 2016-17. As per the instruction sgiven from head office, the ARUs are to book pay revision arrears under prior period expenses and the reversal of the same against provision already created is made at the Head office. However, instead of properly reversing the SBU wise ARUs the entire amount was reversed from SBU-D. Hence, the prior period expenses under SBU-G and SBU-T. Since there is no impact on the total, as the entire amount is deducted from SBU-D, the Commisison approves the prior period income as per accounts.

2.188 ***Considering the above, the Commission approves Other Expense of Rs.41.16 crore as per the KSEB Ltd truing up petition for SBU-G***

Return on equity

2.189 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. KSEB Ltd in their petition sought RoE of Rs.203.63 crore as approved in the order dated 17-4-2017 of the Commission.

Objections of the stakeholders

2.190 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

2.191 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.*

2.192 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

2.193 The Commission has examined the details furnished by KSEB Ltd and the objections of HT-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."*

2.194 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.

2.195 In order to have uniformity, the Commisison adopts the division of equity as per the audited accounts. Accordingly, the RoE allowable for the SBU-G for the year 2016-17 is as shown below:

Table :51

Return on equity approved for the year 2016-17

	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	1719.45	240.72
Total	3,499.00	489.86	3,499.05	489.86

2.196 ***As shown*** above***, the Commission approves Rs.240.72 crore as ROE for SBU-G for 2016-17***. 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

2.197 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.

2.198 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 167.19 crore

(a) Interest and finance charges

The approved level of interest and financing charges including interest on working capital for SBU-G is Rs.71.38crore *(b) Depreciation :*

Approved level of depreciation for SBU-G is Rs.124.59crore

(c) Return on equity:

The RoE for SBU-G is Rs.240.72crore

Non-Tariff income

The approved level of non-tariff income for SBU-G is Rs.22.23crore

2.199 Thus, the total fixed charges approved for the year 2016-17 for SBU-G is as shown below:

Table :52

Fixed charges allowable for SBU-G

	As per Petition	As per Truing up
	Rs. (crore)	(Rs. crore)
O&M expenses	128.55	112.61
Terminal benefits	81.83	54.58
Depreciation	188.79	124.59
Interest & Financing charges including interest on WC	50.05	71.38
Return on Equity	203.63	240.72
Less Non Tariff income	22.23	22.23
Total	**630.62**	**581.65**

2.200 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 53

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 (MW)	PAF As per Petition (%)	Weighted Average (MW)
Kuttiady (Units 1 to 6)	75.00	90.0%	67.50	88.22%	66.17
Sholayar	54.00	89.0%	48.06	83.59%	45.14
Pallivasal	37.50	90.0%	33.75	90.32%	33.87
Sengulam	51.20	90.0%	46.08	90.20%	46.18
Panniar	32.40	89.0%	28.84	82.34%	26.68
Edamalayar	75.00	77.0%	57.75	88.62%	66.47
Idukki	780.00	90.0%	702.00	88.43%	689.75

		As per Norms		As per actual	
Name of the stations	Installed capacity (MW)	NAPAF as per Norms	Weighted Average (MW)	PAF As per Petition (%)	Weighted Average (MW)
Sabarigiri	340.00	90.0%	306.00	85.67%	291.28
Kakkad	50.00	88.0%	44.00	86.35%	43.18
Poringalkuthu	36.00	89.0%	32.04	73.88%	26.60
Total Weighted Average NAPAF for Recovery of Fixed Cost			**1,366.02**		**1,335.30**
Percentage Achievement					**97.75%**

2.201 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 97.75%. Since the actual availability is close to the normative availability no adjustment is made in the recovery of fixed charges

Summary and Transfer Cost of SBU-G

2.202 Based on the above the net transfer cost of SBU-G after is Rs.646.26 crore This amount is the internal generation cost.

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

Table 54

Approved Transfer Cost and Revenue gap of SBU-G for 2016-17

	SBU-G 2016-17		
Particulars	Approved in suo motu ARR order (Rs. crore)	As per truing up Petition (Rs. crore	Approved in the truing up (Rs. crore)
Revenue from sale of power	672.61	695.23	646.26
Non-Tariff income		22.23	22.23
Total Revenue	**672.61**	**717.46**	**668.49**
Fuel cost	-	23.45	23.45
Employee expense	47.65	91.16	81.89
R&M expenses	19.83	27.70	19.83
A&G expenses	4.59	9.69	4.59
O&M for new Stations	3.64	-	6.30
Total O&M expenses	**75.71**	**128.55**	**112.61**

Terminal liabilities	41.94	81.83	54.58
Interest and financing charges	178.90	50.05	71.38
Depreciation	172.43	188.79	124.59
RoE	203.63	203.63	240.72
Other expenses		41.16	41.16
Gross Expenses	**672.61**	**717.46**	**668.49**
Revenue gap	0.00	0.00	0.00

2.204 As shown above the gross transfer cost and net transfer cost of SBU-G is Rs.668.49 crore. After deducting Rs.22.23 crore on account of Non-Tariff Income the net transfer cost of Rs. 646.26 crore is arrived at.

2.205 Accordingly, 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.668.49 crore and net transfer cost of Rs.646.26 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 2016-17.

CHAPTER -3

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

Introduction

3.1 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.

3.2 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.

3.3 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 performs the real time management of Kerala Power System and is headed by a Chief Engineer with headquarters at Kalamassery.

Revenue from operations:

3.4 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 is recovered as transfer cost from SBU-D as intra-state transmission charges.

Tariff income

3.5 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.991.11 crore as against the transfer cost of Rs.881.30 crore approved in the suo motu ARR&ERC order.

3.6 **As against this, the Commission approves the net transfer cost for the year as Rs.763.14 crore, as detailed in in subsequent parts in this order.**

Non Tariff income

3.7 As per the petition, the non-tariff income reported by SBU-T is Rs.35.46crore. 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.35.46 crore as shown below:

Table 1

Non-Tariff income of SBU-T for 2016-17

No	**Particulars**	**Approved suo motu ARR order (Rs. crore)**	**Audited accounts (Rs. crore)**	**As per Truing Up petition (Rs crore)**
	Non Tariff Income			
1	Interest on staff loans and advances	NA	0.02	0.02
2	Income from statutory investments	NA	0.00	0.00
3	Income from rent of land or buildings	NA	0.43	0.43
4	Income from sale of scrap	NA	2.48	2.48
5	Income from staff welfare activities	NA	0.00	0.00
6	Rental from staff quarters	NA	0.10	0.10
7	Excess found on physical verification	NA	0.03	0.03
8	Interest on investments Etc	NA	0.04	0.04
9	Interest on advances to suppliers/contractors	NA	0.04	0.04
10	Hire charges from contractors and others	NA	0.00	0.00
11	Income from Cable ROW granted	NA	0.00	0.00
12	Income from advertisements, etc.	NA	0.00	0.00
13	Miscellaneous receipts	NA	32.33	32.33
14	Interest on delayed or deferred payment	NA	0.00	0.00
	Total Non-Tariff Income	NA	**35.46**	**35.46**

Objections of Stakeholders

3.8 Stakeholders have not pointed out any objections in the matter

Provisions in the Regulations

3.9 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.

3.10 KSEB Ltd has in the petition for truing up claimed Non-tariff income of Rs.35.46crore for SBU-T.

3.11 ***The Commission after considering the details, approves Rs.35.46 crore the non-tariff income of SBU-T for the year 2016-17 as claimed by KSEB Ltd.***

Total Revenue from operations

3.12 As per the petition, the total revenue from operations for SBU-T is Rs.1026.57 crore including non-tariff income. The Commission approves Rs.763.05 crore as revenue from transfer cost and Rs.35.46 crore as non-tariff income as shown below:

Table 2
Total Revenue of SBU-T for the year 2016-17

	Approved in suo motu ARR order (Rs. crore)	As per truing up petition (Rs. crore)	Approved in Truing up (Rs.crore)
Revenue from Transfer Cost	881.30	991.11	763.05
Non-Tariff income	0.00	35.46	35.46
Total Income	**881.30**	**1026.57**	**798.51**

3.13 ***The Commission approves Rs.763.05*** crore ***as transfer cost to SBU-D and Rs.798.51 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.763.05 crore)***

Expenses of SBU-T

3.14 As per the details furnished by KSEB Ltd in the petition, the expenses of for SBU-T inclusive of Return on equity is Rs.991.11 crore as shown below:

Table 3
ARR of SBU-T as per Petition

No	**Particulars**	**Approved in suo motu ARR order**	**As per Truing up petition**
		2016-17 (Rs. crore)	**2016-17 (Rs. crore)**
1	Interest & Financial Charges	285.64	56.28
2	Depreciation	184.25	183.20
3	O&M Expenses *	193.82	372.49
4	Return on equity (14%)	217.59	217.59
5	Other debits, FVA and prior period income/ expenses	0.00	69.94
7	Terminal benefits		127.07
6	ARR	881.30	1026.57
7	Less: non-tariff Income	0.00	35.46
8	**Net ARR (Cost Transferred to SBU-D)**	**881.30**	**991.11**

3.15 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

3.16 O&M expenses comprised of Employee expenses, R&M and A&G expenses. According to KSEB Ltd, total O&M cost for the year 2016-17 of SBU-T was Rs.372.49 crore. The split up details of actual O&M expenses in to Employee expenses, R&M Expenses and A&G expenses as per the petition is given below

Table 4

Components of O&M cost of SBU-T

No	Particulars	Amount (Rs crore)
1	Employee Cost	260.29
2	R&M Expenses	47.21
3	A&G Expenses	64.99
4	Total	372.49

3.17 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 (Terms and conditions of Tariff) Regulations, 2014 for the bay is Rs. 34 Lakh (weighted average for 220 kV and 132 kV and below) and Rs.0.324 lakh for (Double Circuit single conductor) lines. If the same norms are applied, the permissible O&M cost would be (2466 x Rs. 34 Lakhs + 9377.03 km x 0.324=) Rs. 868.82 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. KSEB Ltd also invited the attention of the judgment of the High Court of Kerala regarding truing up of O&M costs.

3.18 The component wise O&M expenses reported by KSEB Ltd are as shown below.

Employee expenses

3.19 The employee expenses booked and claimed for SBU-T is Rs.260.29 crore out of Rs.372.49 crore of O&M expenses. The amount of employee expenses as per the petition excludes terminal benefits. The terminal benefits booked for SBU-T is Rs.127.07 crore. 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 2016-17

No	Particulars	As per Audited accounts (Rs. crore)	As per Truing Up petition (Rs. crore)
1	Basic Salary	221.81	221.81
2	Dearness Allowance (DA)	47.60	47.60
3	House Rent Allowance	5.25	5.25
4	Conveyance Allowance	0.00	0.00
5	Leave Travel Allowance	0.01	0.01
6	Earned Leave Encashment	17.55	17.55
7	Other Allowances	1.99	1.99
8	Medical Reimbursement	1.15	1.15
9	Overtime Payment	0.00	0.00
10	Bonus/Ex-Gratia Payments	0.96	0.96
11	Interim Relief / Wage Revision	0.00	0.00
12	Staff welfare expenses	0.20	0.20
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	0.08	0.08
17	**Net Employee Costs**	**296.60**	**296.60**
18	Less: Expenses Capitalised	36.31	36.31
19	**Net Employee Expenses**	**260.29**	**260.29**

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

3.20 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."

3.21 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 3-9-2018 furnished the following:

"It is humbly submitted that the Hon Tribunal was pleased to grant partial relief under employee cost as per judgment in Appeal 1 & 19 of 2013. Accordingly, in order to facilitate implementation of the Hon High Court judgment, KSEBL as per letter dated 06.08.2018 has already submitted full details of employee numbers and cost attributable to the net increased staff strength over 2009. The cost estimation is similar to the approved method in the True up order for 2015-16.

At the same time KSEBL humbly submits that the employee cost as per Truing up petition may kindly be considered in view of the following submission:

a. *The employee cost of KSEBL includes basic salary, DA and other benefits for serving employees and pensioners, terminal benefits etc for retired employees. Employees of KSEBL are recruited through PSC and salary and other benefits including earned leave surrender etc. are provided as per the wage settlement agreement entered into with the trade unions. As per the agreement DA has to be released as and when the same was released by the State Government to its employees, pension and other benefits as per the rules in force and also as per the directions of court of law.*
b. *In this context, kind attention of the Hon'ble Commission is invited to the extracts from Judgment issued by Supreme Court of India on 3rd October 2002 in the case of West Bengal Electricity Regulatory Commission vs CESC Limited that "**Therefore, during the pendency of these agreements, it was legally not possible for the Company to stop these payments. Therefore, the amounts spent towards this purpose namely, towards the employees' cost should not be treated as the amounts not properly incurred."***
c. *It is clear from this judgment that KSEBL is not in a position to curtail employee expenses incurred under lawful agreement entered into with workmen. Through the second transfer scheme the Government has transferred the entire employees of the erstwhile KSEB to the rolls of the appellant and the appellant has become statutorily bound to bear the cost related to all such employees in view of Section 133 of the Electricity Act, 2003 which mandates that the terms and conditions of*

transfer of employees after re vesting shall not in any way be less favorable than those which would have been applicable to them if there has been no such transfer as per the transfer scheme.

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

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

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

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

Table 1 : Physical addition to major fixed assets between FY 2008-09 and FY 2016-17

Year	***220 KV Lines***	***110 KV Lines***	***66 KV Lines***	***33 KV Lines***	***11 & 22 KV Lines***
	km	***Km***	***km***	***Km***	***Km***
2008-09	*2641.86*	*4067.59*	*2161.91*	*1184.78*	*41440*
2016-17	*2801.89*	*4440.3*	*2208.81*	*1867.61*	*59496*
Increase	***6.06 %***	***9.16 %***	***2.17 %***	***57.63 %***	***43.57 %***
Year	***EHT Substations***	***33 KV Substations***	***Step-Up Transformers***	***Step-Down Transformers***	***Distribution Transformers***
2008-09	*218*	*89*	*2465.6 MVA*	*14631 MVA*	*46359*
2016-17	*258*	*144*	*2699.05 MVA*	*19143.4 MVA*	*75579*
% Increase	***18.35 %***	***61.80 %***	***9.47 %***	***30.84 %***	***63.03***

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

Table 2 : Consumer strength -Growth between 2008 and 2017			
No	**Consumer strength**	**Numbers**	**Increase**
1	*Number of consumers as on 31-03-2008*	*90.30 Lakhs*	
2	*Number of consumers as on 31-03-2017*	*119.95Lakhs*	*32.84 %*

Table 3 Energy sales- Growth from 2008 to 2017			
No	**Energy sales**	**Energy sale (MU)**	**Increase**
1	*Total energy sale as on 31-03-2008*	*12049.90*	
2	*Total energy sale as on 31-03-2017*	*20452.91*	*69.74 %*

Table 4 Fixed Assets added from 2008 to 2017			
No	**Gross Fixed Assets**	**Amount (Rs. crore)**	**Increase**
1	*Gross Fixed asset as on 31-03-2008*	*8684.55*	
2	*Gross Fixed asset as on 31-03-2017*	*17126.17*	*97.20 %*

3.22 In the details furnished, KSEB Ltd has justified the expenses considering the increase in assets and business growth. The details furnished by KSEB Ltd was not in line with the directions of APTEL. However, vide letter dated 6-8-2018 KSEB Ltd furnished the details of employee cost as per the directions of APTEL in its order in Appeal Nos. 1 and 19 of 2013. KSEB Ltd vide letter dated 6-8-2018 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 10331. KSEB Ltd has also stated that the strength of employees in 2017 was 33264 and that in 2009 was 27175. Thus net the increase in employee strength is 6089, considering the retirements. As per the details furnished by KSEB Ltd, the total amount disbursed for 2016-17 for the net increase in employees (6089 nos) from 2009 (33264-27175) Rs.217.35 crore.

3.23 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.

Provisions in the Regulations

3.24 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."

3.25 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

3.26 KSEB Ltd in their truing up petition has sought Rs.260.29 crore towards employee expenses of SBU-T excluding terminal liabilities. 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 transmission 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.

3.27 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 contention 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. 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.

3.28 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.

3.29 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

3.30 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."

3.31 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.

3.32 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".

3.33 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."

3.34 From 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. 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.

3.35 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. KSEB Ltd vide letter dated 6-8-2018 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 10331. KSEB Ltd has also stated that the strength of employees in 2017 was 33264 and that in 2009 was 27175. Thus net the increase in employee strength is 6089, considering the retirements. As per the details furnished by KSEB Ltd, the total amount disbursed for 2016-17 for the net increase in employees (6089 nos) from 2009 (33264-27175). The total disbursements for the increase in employees of 6089 over 2009 levels is Rs.217.35 crore.

3.36 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.2139.72 crore. As furnished by KSEB Ltd in its letter dated 6-8-2018, the employee cost of additional employees is Rs.217.35 crore. Hence, the allowable expenses excluding terminal liabilities for KSEB Ltd is Rs.1922.37 crore (Rs.2139.72 crore - Rs.217.35 crore).

Table 6
Approved employee cost for SBU-T

	SBU-T (Rs. crore)	KSEB Ltd (Rs. crore)
Net Employee costs	260.29	2139.72
Net employee cost of SBU-T as a percentage	12.16%	
Net cost of additional employees as per the letter dated 6-8-2018		217.35
Balance Employee cost		1922.37
Employee cost attributable to SBU-T (Rs.1922.37 X 12.16%)	**233.76**	

3.37 ***On a pro-rata basis, the employee cost for SBU-T will be 12.16% of Rs.1922.37 crore ie., Rs.233.76 crore if determined as per the directions of the Hon APTEL and judgment of Hon. High Court of Kerala.***

Table 7
Employee cost Approved for SBU-T for 2016-17

	As per truing up petition (Rs. crore)	Approved in the truing up (Rs. crore)
Employee Costs (Excluding terminal liabilities)	260.29	233.76

3.38 ***The Commission approves Rs.233.76 crore as the total employee cost excluding terminal liabilities for SBU-T for 2016-17***

R&M Expenses

3.39 The R&M expenses of SBU-T claimed by KSEB Ltd for the year 2016-17 as per the petition was Rs.47.21 crore, out of the total O&M expenses of Rs. 372.49 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.

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

Table 8
SBU wise Split up details of R&M expenses

No	**Particulars**	**As per Audited accounts (Rs. crore)**	**As per Truing Up Petition (Rs. crore)**
1	Plant & Machinery	30.50	30.50
2	Buildings	2.00	2.00
3	Civil Works	5.89	5.89
4	Hydraulic Works	0.05	0.05
5	Lines & Cable Networks	7.49	7.49
6	Vehicles	0.68	0.68
7	Furniture & Fixtures	0.12	0.12
8	Office Equipment	0.48	0.48
9	**Gross R&M Expenses**	**47.21**	**47.21**
10	Less: Expenses Capitalised		
11	**Net R&M Expenses**	**47.21**	**47.21**

Provisions of the Regulations

3.41 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

3.42 The R&M expenses of SBU-T claimed by KSEB Ltd for the year 2016-17 as per the petition was Rs.47.21 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. Accordingly the segregated norms based on number of bays for SBU-T are as shown below:

Table 9

O&M expenses for Bays

	Rs. lakh per Bay
	2016-17
Employee cost	3.05
R&M expenses	***2.01***
A&G Expenses	***0.48***
Total O&M expenses	**5.54**

3.43 As shown above, as per the Regulations, composite norms for the bay is Rs.5.54 lakh per bay. Of this, R&M expenses for SBU-T for a Bay is Rs.2.09 lakh

3.44 The norms for the circuit km is given below:

Table 10

O&M expenses for circuit kms

	Rs.lakh/circuit km
	2016-17
Employee cost	0.34
R&M expenses	***0.22***
A&G Expenses	***0.05***
Total O&M expenses	**0.61**

3.45 As shown above, as per the Regulations, composite norms for circuit kilometer is Rs.0.61 lakh for 2016-17. Of this, R&M expenses for SBU-T for circuit km is Rs.0.22 lakh.

3.46 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 2015-16. As per the details furnished by KSEB Ltd in the petition, the no. of bays and circuit km at the end of the year 2015-16 is as shown below.

Table 11

Operational parameters for SBU-T for estimation of R&M and A&G expenses

Item	2015-16
No. of Substation Bays*	2466
Transmission lines (Ckt kms)	9377.03

3.47 Based on the above, the R&M expenses applicable for SBU-T for the year 2016-17 is estimated as shown below:

Table 12

R&M expenses applicable to SBU-T as per the Regulations for 2016-17

Parameters	2015-16	Norms as per Regulation (Rs.lakh/bay/Circuit km)	Allowable R&M expenses 2016-17 (Rs.crore)
1	2	3	4=2x3/100
No. of Substation Bays	2466	***2.01***	49.57
Transmission lines (Ckt kms)	9377.03	***0.22***	20.63
Total R&M expenses as per Regulation			**70.20**

3.48 As shown above, the R&M expenses allowable to SBU-T as per the provisions of the Regulations is Rs.70.20 crore as against KSEB Ltd petition of Rs.47.21crore.

Table 13

R&M expenses approved for SBU-T for 2016-17

	As per truing up petition (Rs. crore)	Approved for Truing up (Rs. crore)
R&M Expenses	47.21	70.20

3.49 ***The Commission approves Rs.70.20 crore as R&M expenses for SBU-T for 2016-17 for the purpose of truing up.***

A&G expenses

3.50 As per the petition the A&G expenses booked is Rs.64.99 crore out of the total O&M expenses Rs.372.49 crore for KSEB Ltd. The split up details of A&G expenses is shown below:

Table 14
A&G expenses under SBU-T

No	Particulars	As per Audited accounts (Rs. crore)	As per Truing Up petition (Rs. crore)
1	Rent Rates & Taxes	0.54	0.54
2	Insurance	0.02	0.02
3	Telephone & Postage, etc.	1.56	1.56
4	Legal charges	0.48	0.48
5	Audit Fees	0.18	0.18
6	Consultancy charges	0.03	0.03
7	Other Professional charges	0.6	0.6
8	Conveyance	6.31	6.31
9	Vehicle Running Expenses	0.16	0.16
10	Vehicle Hiring Expenses	0.17	0.17
11	Electricity charges	0.04	0.04
12	Water charges	0.09	0.09
13	Entertainment	0.15	0.15
14	Fees & subscription	0.27	0.27
15	Printing & Stationery	0.92	0.92
16	Advertisements, Etc	0.54	0.54
17	Contribution/Donations	0.35	0.35
18	Training expenses	-0.15	-0.15
19	Miscellaneous Expenses	0	0
20	DSM activities	0	0
21	SRPC expenses	0.12	0.12
22	Sports and related activities	0.13	0.13
23	Freight	2.62	2.62
24	Purchase Related Ads	0.5	0.5
25	Bank Charges	0	0
26	Office Expenses	53.75	53.75
27	License Fee Etc	2.24	2.24
28	Cost of services procured	0	0
29	Outsourcing metering and billing	0	0
30	V-sat, Internet and related	0.06	0.06

No	Particulars	As per Audited accounts (Rs. crore)	As per Truing Up petition (Rs. crore)
	charges		
31	Security arrangements	0	0
32	Books & periodicals	0.01	0.01
33	Computer Stationery	0	0
34	Others	0.12	0.12
35	Other Purchase Expenses	1.48	1.48
36	Others– LED Distribution Expenditure	-2.64	-2.64
37	**Gross A&G Expenses**	**70.66**	**70.66**
38	**Ele. Duty u/s 3(I), KED Act**	**0**	
39	Less: Expenses Capitalised	5.67	5.67
40	**Net A&G Expenses**	**64.99**	**64.99**

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

Objections of the Stakeholders

3.52 There is no specific objection raised by stakeholders regarding O&M expense of SBU-T. However, the Association has stated that O&M expenses should be allowed only as per the provisiosn of the Regulations.

Analysis and decision of the Commission

3.53 The A&G expenses of SBU-T claimed by KSEB Ltd for the year 2016-17 as per the petition were Rs.64.99 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. As mentioned above, this can be done based on the base figures provided in the Note to the Regulations. Accordingly Segregated norms based on No. of bays for SBU-T can be apportioned as shown below:

Table 15

O&M expenses for Bays

	Rs. lakh per Bay
	2016-17
Employee cost	3.05
R&M expenses	***2.01***
A&G Expenses	***0.48***
Total O&M expenses	**5.54**

3.54 As shown above, as per the Regulations, composite norms for bay is Rs.5.54 lakh. Of this, A&G expense for SBU-T based bay is Rs.0.48 lakh.

3.55 The norms based on circuit km is given below:

Table 16

O&M expenses for circuit kilometer

	Rs.lakh/circuit km
	2016-17
Employee cost	0.34
R&M expenses	***0.22***
A&G Expenses	***0.05***
Total O&M expenses	**0.61**

3.56 As shown above, as per the Regulations, composite norms for circuit kilometer is Rs.0.61 lakh. Of this, A&G expenses for SBU-T based on circuit kilometer is Rs.0.05 lakh.

3.57 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 2015-16. 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 2015-16 beginning of the year 2016-17 is as shown below.

Table 17

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

Item	2015-16
No. of Substation Bays	2466
Transmission lines (Ckt kms)	9377.03

3.58 Based on the above, the A&G expenses applicable for SBU-T for the year 2016-17 is estimated as shown below:

Table 18

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

Parameters	2015-16	Norms as per Regulation (Rs.lakh/bay/Circuit km)	Allowable A&G expenses for 2016-17 (Rs.crore)
1	2	3	4=2x3/100
No. of Substation Bays	2466	***0.48***	11.84
Transmission lines (Ckt kms)	9377.03	***0.05***	4.69
Total A&G expenses as per Regulation			**16.53**

3.59 The A&G expenses allowable to SBU-T as per the provisions of the Regulations is Rs.16.53 crore.

Table 19

A&G expenses approved for SBU-T for 2016-17

	As per petition (Rs. crore)	Approved for Truing up (Rs. crore)
A&G Expenses	64.99	16.53

3.60 ***As shown above, the A&G expenses allowable to SBU-T as per the provisions of the Regulations is Rs.16.53 crore as against KSEB Ltd claim of Rs.64.99 crore.***

Approved O&M Expenses excluding terminal liabilities

3.61 The total O&M expenses approved for 2016-17 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 2016-17

	As per truing up petition (Rs. crore)	Approved in truing up (Rs. crore)
Employee Costs	260.29	233.76
R&M Expenses	47.21	70.20
A&G expenses	64.99	16.53
Total O&M Expenses	372.49	320.48

Terminal benefits

3.62 KSEB Ltd has claimed Rs.127.07 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

3.63 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

3.64 KSEB Ltd has sought the actual expenses towards the payment of terminal benefits in the petition. As per the details submitted in the petition terminal benefits paid to retired employees in 2016-17 for SBU-T is Rs.127.07 crore

3.65 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."

3.66 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 stated that since the delay in operationalisation of the Master Trust was beyond the control of KSEB Ltd, the terminal benefits should be fully allowed under the employee cost.

3.67 The Commission has examined the matter. The amount booked as per the petitioin under terminal benefits is Rs.1221.06 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.

3.68 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]*

3.69 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 shared jointly and severally by KSEB Ltd and the State Government. However, the amount of contribution from the State Government was not specifically mentioned.

3.70 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. The Commission allowed the entire terminal benefits for 2015-16 and of this, Rs.814.40 crore as part of the truing up for 2015-16. Therefore the Commission approves the total terminal liability of Rs.1221.06 crore as per the petition of KSEB Ltd and apportions Rs.814.40 crore to KSEB Ltd account for the year

2016-17 towards terminal benefits 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.406.66 crore from the State Government either through 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.

3.71 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.127.07 crore towards SBU-T out of the total commitment of Rs.1221.06 crore. Considering this, of the Rs.814.40 crore, terminal benefits 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 2016-17

	As per truing up petition (Rs. crore)	Approved in the truing up (Rs. crore)
KSEB Ltd		
Terminal benefits as per petition	1221.06	1221.06
Contribution of Government		406.66
Contribution through Truing up		814.40
Total Terminal benefits	1221.06	1221.06
SBU-T		
Share of Terminal benefits for SBU-T	127.07	
Contribution of Government		42.32
Contribution through Truing up		84.75
Total Terminal benefits	127.07	127.07

3.72 ***The Commission hereby approves Rs.127.07crore as the total terminal benefits of SBU-T. Of this, Rs.84.75 crore shall be debited to SBU-T account and Rs.42.32 crore to be got reimbursed from State Government***.

Interest and financing charges

3.73 As per the petition, the KSEB Ltd sought Rs.56.28 crore towards interest and financing charges of the SBU-T. Interest charges include interest on secured loans only in the case of SBU-T. The Commission approved the interest and financing charges of Rs.285.64 crore in the ARR which include interest on loans, interest charges on GPF, other interet charges and interest on Master Trust.

3.74 Each of the items is dealt with as given below:

Interest on long term loans and advances

3.75 As per the details furnished by KSEB Ltd the outstanding loan as on 31-3-2016 was Rs.3753.51 crore and the net addition in loan was Rs.2400.56 crore in 2016-17. Out of this there was special addition of loans from PFC and REC to the tune of Rs.1250 crore each in 2016-17. Correspondingly, there was a decrease in the overdrafts, as the opening balance of overdrafts was Rs.2171.94 crore and the closing balance was Rs.666.16 crore in the year 2016-17 showing a decrease of Rs.1505.78 crore.

3.76 In order to service these long term loans, KSEB Ltd in their truing up petition had claimed Rs.435.79 crore as interest charges out of the total Rs.1024.55 crore towards total finance cost for 2016-17. The interest and finance charges capitalized for the period was Rs.64.63 crores, resulting in a net interest and financing charges of Rs.946.21 crores.

3.77 In the ARR, the Commission has considered a loan amount of Rs.1667 crore for SBU-T at the end of 2016-17. However as per the methodology adopted by KSEB Ltd, loan amount for SBU-T is Rs.1750.11crore and interest thereon is Rs.56.28 crore. Other interest charges and interest on GPF is entirely included under SBU-D and no portion is apportioned to SBU-T. KSEB Ltd further stated that interest and financing charges attributable to capital works are consistently capitalized as per Regulation 25. During 2016-17, KSEB Ltd capitalized Rs.8.35 crore out of the total interest of Rs.64.63 crore, which form part of the IDC. Further employee cost and A&G expenses were also capitalized to the extent of Rs.36.31 crore and Rs.5.67 crore respectively.

3.78 As per the details furnished in the petition, the gross normative loan and interest charges for the year is as shown below:

Table 22

Normative loan and average rate of interest as per the petition

Particulars	Normative (Rs. crore)	As per Truing Up petition (Rs. crore)
Gross Normative loan – Opening		
Cumulative repayment of Normative Loan up to previous year		
Net Normative loan – Opening	1011.12	1011.12
Increase/Decrease due to ACE/de-capitalization during the Year	1672.13	1672.13
Repayments of Normative Loan during the year	901.87	901.87
IND AS adjustments	31.28	31.28
Net Normative loan – Closing	1750.10	1750.10
Average Normative Loan	1380.61	1380.61
Weighted average Rate of Interest of actual Loans	7.83	7.83

3.79 As shown above, KSEB Ltd has claimed interest charges for long term and short term loans duly incorporating the Ind AS adjustments. The average rate of interest for the loans estimated by KSEB Ltd for SBU-T was 7.83%.

3.80 However, as part of the clarifications sought by the Commission, KSEB Ltd in its letter dated 3-9-2018 stated that that two additional loans were secured by KSEB Ltd to the tune of Rs 1250 crore each from PFC and REC respectively at the fag end of the financial year 2016-17 (on 30th and 31st of March 2017) at a rate of interest of 9.08%. Hence, according to KSEB Ltd the closing balance of loans as on 31.03.2017 is heavily impacted and the average rate of interest would be worked out to be 10.90% if the impact of these loans were considered. Accordingly KSEB Ltd had furnished the following calculation for the average rate of interest

Table 23

Average rate of interest worked out by KSEB Ltd as per letter dated 3-9-2018

Item	Opening balance of loans as at 01.04.2016 (Rs. crore)	Addition (Rs.crore)	Repayments (Rs.crore)	IND AS adjustments (Rs.crore)	Closing balance 31.03.2017 (Rs.crore)	Interest charges (Rs.crore)	Average Interest rate %
LT Loans (excl 2500 crore)-A	1,853.51	2,871.77	189.03	269.66	1,766.57	209.06	**11.55**
ST Loans-B	1,900.00	2,875.00	2,887.50	-	1,887.50	192.07	**10.14**
Loans (A+B)	**3,753.51**	**5,746.77**	**3,076.53**	**269.66**	**3,654.07**	**401.13**	**10.83**
Add:Loan from PFC -1 day	-	-	-	-	1,250.00	0.31	**0.02**
Add:Loan from REC-2 days	-	-	-	-	1,250.00	0.62	**0.05**
Ind As adjustments						33.73	
Total	**3,753.51**	**5,746.77**	**3,076.53**	**269.66**	**4,904.07**	**435.48**	**10.90**

3.81 KSEB Ltd however, did not provide the SBU wise details of average interest rate while revising the rates.

3.82 KSEB Ltd stated that the total capial works to the tune of Rs.280.04 crore was executed during the year. The summary of the same is given below:

Table 24

Summary of capital works done under SBU-T for the year 2016-17

No	Item	Quantity
1	110KV lines	73.533 km
2	33KV lines	75.77 km
3	Step down Transformers	364.4 MVA
4	EHT Substations	3 numbers
5	33KV Substations	7 numbers
6	Capacity addition/enhancement	358.8 MVA

Objection of stakeholders

3.83 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.196.06crore on account of interest for CWIP of Rs.1782 crore at a rate of Rs.11% 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

3.84 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."

3.85 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

3.86 As per the petition, the KSEB Ltd sought Rs.56.28 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

3.87 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 2016-17) 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.

3.88 The Commission has examined in detail the claims towards interest charges apportioned to SBU-T and the objections of the stakeholders. 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.

3.89 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. However, as part of the clarifications sought by the Commission, KSEB Ltd in its letter dated 3-9-2018 stated that that two additional loans were secured by KSEB Ltd to the tune of Rs 1250 crore each from PFC and REC respectively at the fag end of the financial year 2016-17 (on 30th and 31st of March 2017) at a rate of interest of 9.08%. Hence, according to KSEB Ltd the closing balance of loans as on 31.03.2017 is heavily impacted and the average rate of interest would worked out to be 10.90%, if the impact of these loans were considered.

3.90 The Commission examined the details furnished by KSEB Ltd on the average rate of interest. It is true that KSEB Ltd has availed loans from REC and PFC for, one and two days prior to the close of the financial year. The Commission also notes that while estimating the interest charges and outstanding loans, KSEB Ltd has taken into consideration the Ind AS adjustments in the loans while the adjustments in the interest charges have been excluded. Considering these anomilies in working out the weighted average rate of interest by KSEB Ltd, the Commission has estimated the average rate of interest of the actual loan portfolio as shown below:

Table 25
Details of weighted average rate of interest for 2016-17

	Opening Balance of loan (Rs. crore)	Closing Balance of loan (Rs. crore)	Average loan (Rs. crore)	Interest Charges (Rs. crore)	% share	Average Rate of Interest (%)	Weighted average Rate (%)
Long Term Loans	1,853.51	2,036.25	1944.88	209.06	50.5%	10.75%	5.43%
Short Term loans	1,900.00	1,887.50	1893.75	192.07	49.2%	10.14%	4.99%
Loan from PFC -1 day	0.00	1,250.00	3.42	0.31	0.1%	9.05%	0.01%
Loan from REC-2 days	0.00	1,250.00	6.85	0.62	0.2%	9.05%	0.02%
	3753.51	6423.75	3,848.90	402.06	100.0%		10.45%

3.91 The opening level of loans as per the accounts is Rs.3753.51crore and closing balance before the Ind AS adjustments is Rs.6423.75 crore. The interest charges for loans for the year 2016-17 as per the accounts excluding fair value adjustments is Rs.402.06 crore (Rs.435.79 crore- Rs.33.73 crore). Considering the loans taken at the end of the year, the weighted average rate of interest works out to be 10.45%.

3.92 The interest charges allowable for the year 2016-17 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.

3.93 The Commission has arrived at the normative loan as per the Regulations for the year 2016-17 as shown below:

Table 26

Normative existing loans for the year 2016-17

		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
5	Repayment equivalent to depreciation for the year	334.87
6=4-5	Normative loan as at the end of the year	1,941.30
7	Addition to loans in 2015-16	380.08
8=6+7	**Opening levels of Loan (as on 1-4-2016)**	**2,321.38**
9	Repayment for the year 2016-17 (Depreciation)	369.87
10=8-9	**Closing level of loans (31-3-2017)**	**1,951.51**
11=(8+10)/2	Average loan	2,136.45
12	Weighted Average rate of Interest	10.45%
13=11x12	Interest charges (existing normative loan)	223.26

3.94 The Commission in the truing up order for 2015-16 had arrived at, for the purpose of estimating the normative loans, the net fixed assets as on 1-4-2015 as Rs.8483.82 crore. After deducting the souces of funding such as grants and contribution and equity, normative loan as on 1-4-2015 was Rs.2276.17 crore. After deducing the normative repayment equivalent to the depreciation, the net normative loan at the end of 2015-16 was Rs.1941.30 crore. The addition to normative loan ie., net increase in fixed assets excluding grants and contribution, was Rs.380.08 crore. Thus closing level of normative loan (31-3-2016) was Rs.2321.38 crore.

3.95 The normative repayment for the year 2016-17 was equivalent to the depreciation is Rs.369.87 crore and the closing level loans is Rs.1951.51 crore. The weighted average rate of interest on the actual loan portfolio is 10.45% and the interest on existing normative loan is estimated as Rs.223.26 crore.

3.96 **The interest charges so arrived at is apportioned based on the gross fixed assets among SBUs and accordingly for SBU-T, the interest on existing normative loan is Rs.62.65 crore.**

Inerest charges for addition to loans

3.97 Interest charge for the addition to loans is based on the addition of assets. The provision of the regulation regarding addition to loans is given below:

Provisions in the Regulation

3.98 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), debt 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.

3.99 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.

3.100 The Commission examined the details furnished by KSEB Ltd. The total asset addition during the year is Rs.1768.65 crore, which is the difference between the closing value of GFA (less revalued assets) as on 31-3-2017 ie., Rs.17126.17 crore and the opening value of GFA of Rs.15357.52 crore). The asset addition furnished by KSEB Ltd of Rs.1768.65 crore in 2016-17, is a substantial amount comparing to the asset additioins made in the previous years. In 2013-14, the asset addition was Rs.798.20 crore, whereas in 2014-15 the asset addition is Rs. 1128 crore. In 2015-16, the asset addition as per the accounts was Rs.738.44 crore. As per the details, it appears that as part of the first time adoption of Ind AS accounts, KSEB Ltd had tried to clear the expenditure booked under CWIP to assets.

3.101 In this context, it is pertinent to mention that the Commission vide letter dated 23-4-2018 had directed KSEB Ltd to furnish the details of capital expenditure under generation, transmission and distribution with full details as per the provisions of Regulations during the truing up process. However, KSEB Ltd failed to furnish the details as directed by the Commission as part of the truing up petition. KSEB Ltd furnished only broad items of capitalization under each projects for generation and on a composite basis for transmission and distribution. KSEB Ltd could not provide the details of components of each project, the funding pattern including that of loans, grants and equity. The details such as sanctioned cost, actual cost of the projects, delays if any and delays beyond the control of KSEB Ltd etc., were also not provided. Further, the details regarding material cost, interest during construction, expenses such as employee cost and A&G expenses capitalized etc., for the assets were also not provided. It could not be ascertained with the available information whether the projects capitalized are complete in all respects and put into use. In the absence of the details provided by KSEB Ltd , the Commission is not in a position to examine the prudence of the capital expenditure addition made during the year and also consider the requirement of normative loans and interest thereon for assets added during the year 2016-17.

3.102 ***Under these circumstances, the Commission is of the considered view that till such time,* complete *information on the capital expenditure is furnished as per the provisions of the Regulations, the approval of addition to capital expenditure and consequently the interest amount to be considered for the year is to be*** deferred***. The details to be furnished are essential part of the Regulation formats. As soon as the required information is furnished, the Commission may consider the same for the approval.***

3.103 Accordingly, the interest charges for normative loan for the addition to assets is deferred. Thus, the total interest charges for loans approved for the purpose of truing up is as shown below:

Table 27

Interest charges on loans for the year 2016-17

	SBU-G (Rs. crore)	SBU-T (Rs.crore)	SBU-D (Rs. crore)	KSEB Ltd (Rs crore)
Interest on Existing loans	64.56	62.65	96.05	223.26
Interest on Addition to loans*	-	-	-	-
Total Interest charges on loans	**64.56**	**62.65**	**96.05**	**223.26**

*Deferred due to want of details

3.104 **Thus*, the interest charges for long term loans for SBU-T is Rs.62.65 crore***

Overdrafts

3.105 According to KSEB Ltd overdrafts are availed for meeting the revenue deficits. KSEB Ltd did not a provide SBU wise detail of the overdrafts and no amount is assigned to SBU-T. Hence, there is no interest charges assigned on this accounts.

Interest on working capital

3.106 KSEB Ltd has not claimed any interest on working capital. However, in the petition, KSEB Ltd has worked out the interest on working capital as shown below:

Table 28

Interest on working capital as per petition for SBU-T

Particulars	As per Audited accounts (Rs. crore)	Normative	As per Truing Up petition (Rs.crore)
O&M Expenses (as per Norms)	41.63	NA	41.63
Maintenance Spares	43.09	NA	43.09
Receivables calculated on Target availability	84.75	NA	84.75
Less : Amount held as security deposits except BGs	0.00	NA	0.00
Total Working Capital	169.48	NA	169.48
Interest rate	13%	NA	13%
Interest on Working Capital	**22.03**	**NA**	**22.03**

3.107 As per the provisions of the Regulations, interest on working capital is allowed on a normative basis and separately for each business as shown below:.

Provisions in the Regulations

3.108 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

3.109 Regarding interest on overdraft from the Banks, the Association pointed out that the claim of Rs.248.94 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 overdrafts.

Analysis and decision of the Commission

3.110 The Commisison has worked out the interest on working capial as per the provisions of the Regulations. Accordingly, the working capital is estimated as shown below:

O&M expenses for SBU-T - Rs.320.48 crore
Historical cost of assets - Rs.4309.46 crore
Base rate - 9.3%
Interest rate for working capital - 11.3%

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

Table 29

Estimation of interest on working capital for SBU-T

	SBU-T (Rs. crore)
O&M expenses for one month	26.71
Cost of maintenance of spares 1% of historical cost	43.09
Total	**69.80**
Less Security deposits	0
Total Normative Working capital Requirement	**69.80**
Base rate as on 1-4-2016	9.30%
Interest rate on working capital	11.30%
Interest on working capital	**7.89**

3.112 ***The interest on working capital for SBU-T as per the provisions of the Regulations is Rs.7.89 crore, which is approved for the year 2016-17***

Interest on security deposits

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

Interest charges for GPF

3.114 As per the petition, KSEB Ltd has not apportioned interest on GPF to SBU-T. Hence the same is not considered.

Other Interest Charges

3.115 Other interest charges is inclusive of guarantee commission and bank charges. ***Since there is no amount assigned to SBU-T under other interest charges, the same is not considered.***

Summary of Interest and financing charges

3.116 Summary of the total interest charges allowable for the SBU-T is for the year 2016-17 is as shown below:

Table: 30

Interest charges allowable for SBU-T

No	Particulars	Approved in suo motu ARR (Rs. crore)	As per True up petition (Rs. crore)	Approved in truing up (Rs. crore)
1	Interest on Outstanding Capital Liabilities*	183.39	56.28	62.65
2	Interest on security deposits	0.00	….	….
3	Interest on working capital	0.00	….	7.89
4	Interest on GPF	14.04	...	….
5	Other Interests	1.07	...	….
6	Interest on Master Trust Bonds	87.14	...	….
7	**Total**	**285.64**	**56.28**	**70.54**

**Excluding interest on addition to assets, which is deferred due to want of details*

3.117 ***Thus the total*** interest ***and financing charges approved for the year 2016-17 for SBU-T is Rs.70.54 crore against Rs.56.28 crore booked as per the accounts.***

Depreciation

3.118 KSEB Ltd in the truing up petition has claimed total depreciation of Rs.617.51 crore for the year 2016-17, of which the share of SBU-T was Rs.183.20 crore.

3.119 In the audited accounts KSEB Ltd has made adjustments for Ind AS transition. Further, the depreciation as per the accounts is made using the CERC rates for the entire assets irrespective of vintage. This has resulted overstatement of depreciation in the accounts as against the provisions of the Regulations. Since the depreciation as per the accounts is violates the provisioisn of the Regulations, KSEB Ltd had worked out depreciation separately for the purpose of truing up in the petition.

3.120 KSEB Ltd in the petition stated that during the course of audit, for 2016-17, detailed examination of CWIP was carried out and completed works lying under CWIP were identified. Accordingly a sum of Rs.414.82 crore (Rs.201.40 crore for 2014-15 and Rs.282.73 crore upto 2015-16) has been capitalized in line with the first time adoption of Ind AS 101. Detaied asset class wise asset addition is given below:

Table 31

Asset class wise addition on account of Ind AS adjustments

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

3.121 As shown above, KSEB Ltd as part of the Ind AS adjustments, retrospectively added assets for the year 2014-15 and 2015-16. The depreciation as per the peititon includes the depreciation for asset additions made for the year 2014-15 and 2015-16 on account of Ind AS adjustments.

3.122 KSEB Ltd in their petition estimated the depreciation as per the provisions of the Regulations as shown below:

Table 32

Depreciation estimated by KSEB Ltd for the purpose of truing up for 2016-17

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

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

Table 33

Apportionment of depreciation among SBUs

SBU	GFA as on 31.03.2016* Rs. crore	% of GFA	Depreciation (Rs. crore)
SBU G	4440.85	30.57	188.79
SBU T	4309.46	29.67	183.20
SBU D	5775.14	39.76	245.51
Total	14525.45	100	617.51
** excluding value enhancement* *** the value of GFA furnished by KSEB Ltd in the Table (Rs.14525.45 crore) is different from value of GFAused for estimation of depreciation (Rs.15357.52 crore)*			

Objections of the stakeholders

3.124 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.380.40 crore only need to be allowed as depreciation for KSEB Ltd as a whole. The Friends of Electricity consumers argued that depreciation for the asset addition for 2014-15 and 2015-16 should also be allowed.

Provisions in the Regulations

3.125 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

3.126 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.

3.127 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";

3.128 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.

3.129 In contrast to the previous years' accounts, it appears that KSEB Ltd has accounted depreciation in the accounts using the higher rates applicable to the first 12 years of commissioning of assets, for the entire assets thereby overstating the depreciation. This was done as part of the restatement of accounts for Ind AS compliance. The depreciation as per the books of accounts for the year 2015-16 was Rs.491.23 crore, where as the depreciation for the year 2016-17 as per the accounts is Rs.718.88 crore showing an increase of Rs.227.65 crore. The asset addition for the year 2015-16 including the Ind AS adjustments was only Rs.1021.16 crore (Rs.738.43 crore + Rs.282.73 crore for Ind As adjustments) showing that the depreciation booked in 2016-17 is higher than the rates notified. By doing so, KSEB Ltd has violated provisions of the Regulations for accounting depreciation and also not properly accounted depreciation for the assets older than 12 years.

3.130 The Commission notes that as per the provisions of the Electricity Act 2003 and the Tariff Policy, the depreciation rates specified by the Commission shall be used for the purpose of tariff determination as well as for accounting purposes.

There is a specific provision applicable to the companies engaged in the generation, transmission and distribution of electricity to follow the provisions of the Electricity Act. Accordingly, for the purpose of depreciation, KSEB Ltd should have used the provision of the Regulations for accounting depreciation. The Commission views such lapses seriously.

3.131 Since the depreciation as per the accounts is in violation of the provisions of the Regulations, KSEB Ltd has devised a methodology for estimating the depreciation in the petition. In both the versions ie., in the accounts as well as in the petition, the depreciation arrived at is not as per the provisions of the Regulations and cannot be used for the purpose of truing up.

3.132 In the absence of correct depreciation for the assets in line with the provisions of the Regulations, the Commission has no other alternative, but to resort to estimating the depreciation as per the provisiosn of the Regulations. Hence, the Commisison has decided to arrive at the depreciation based the provisions of Regulations for the purpose of truingup. The Commisison in the truing up of Accounts for the year 2015-16, have allowed the depreciation as per the provisions of the Regulations by removing the depreciation on the assets created out of consuer contribution and grants from the depreciation booked in the accounts. Depreciation was also not allowed for revalued assets as per the provisions of Regulations.

3.133 The Commisison thus, allowed depreciation of Rs.334.87 crore for the year 2015-16. In the absence of depreciation as per the provisions of the Regulations for the year 2016-17, the Commission is of the view that for the purpose of truing up, depreciation allowed for 2015-16 along with depreciation for the addition of assets for the year 2015-16 be the depreciation for the year 2016-17. This is done since the depreciation is accouted on a straight line method. The Commission is also aware that while using such methodology, the depreciation will be overestimated since there is always a portion of assets which complete 12 years and the depreciation for such assets will be spread out for the balance useful periods.

3.134 *In this context it is also pertinent to mention that the Commission considered the asset additioin of Rs.1021.16 crore for the year 2015-16 for the purpose of depreciation, which is inclusive of the asset addition of Rs.282.73 crore made as part of the adjustments on account of Ind AS adoption. The Commission has excluded this portion of addition to assets while approving the interest and financing charges for want of the proper details furnished by KSEB Ltd. Thus, while approving the interest charges subsequently, on submission of the details, revision if any on the addition to assets, the corresponding adjustment if any needed in depreciation will also be carried out.*

3.135 Accordingly, the depreciation allowable for the year 2016-17 is worked out as shown below:

Table 34

Depreciation for the year 2016-17

		SBU-G (Rs.crore)	SBU-T (Rs.crore)	SBU-D (Rs.crore)	KSEB Ltd (Rs.crore)
1	**Depreciation allowed in 2015-16**	**122.05**	**132.84**	**79.98**	**334.87**
2	Asset Addition 2015-16	34.79	212.24	491.40	738.43
3	Ind AS addition	13.32	81.26	188.15	282.73
4=2+3	**Total Asset Addition in 2015-16**	**48.11**	**293.50**	**679.55**	**1,021.16**
5	Less Contribution & Grants 2015-16		12.02	346.33	358.35
6=4-5	*Balance value of assets added*	*48.11*	*281.48*	*333.22*	*662.81*
7=6x5.28%	Depreciation for assets added in 2015-16 (@ 5.28%)	2.54	14.86	17.59	35.00
8=1+7	**Depreciation for 2016-17**	**124.59**	**147.71**	**97.57**	**369.87**

3.136 The depreciation allowed for the year 2015-16 was Rs.334.87 crore for KSEB Ltd as a whole and Rs.132.84 for SBU-T. The asset addition for the year 2015-16 was Rs.1021.16 crore for the KSEB Ltd as a whole including the asset addition on account of Ind AS adjustments. The total value of grants and contribution for the year 2015-16 was Rs.358.35 crore for KSEB Ltd as a whole. The grants and contribution for SBU-T is Rs.12.02 crore. Thus the net addition of assets eligible for depreciation is Rs.662.81 crore for KSEB Ltd as a whole. The depreciation for the addition of assets at an average rate of 5.28% is Rs.35 crore. The same is allocated to SBUs based on the addition of assets to assets and for SBU-T is Rs.14.86 crore. Thus the total depreciation for KSEB Ltd as whole for the year was Rs.369.87 crore and that of SBU-T is Rs.147.71 crore.

Table 35

Depreciation approved for SBU-T for 2016-17

	Approved in suo motu ARR order	As per Truing up petition	Approved in Truing up
	Rs. crore	Rs. crore	Rs. crore
SBU-T	184.25	183.20	147.71

Other expenses:

3.137 Under SBU-T, other expenses booked is Rs. 69.94 crore. This includes the prior period expenses of R.74.83 crore and fair value addition income of 1.96 crore. Other debits is 2.93 crore. Hence after adjusting for other debits, fairvalue adjustments and prior period expenses, the net expenses was Rs.69.94 crore. The prior period expenses according to KSEB Ltd is adjustment of provisions wrongly booked for the pay revision to SBU-G ad SBU-T. However, the same amount has been corrected by including the same as income under SBU-D and hence there is no impact in the overall statement. Hence, KSEBLtd requested to consider the other expenses as per the petition.

Analysis and decision of the Commission

3.138 The total other expenses claimed for SBU-T is Rs. 69.94 crore which is mainly on account of prior period expenses of Rs.74.83 crore. The othe expenses inclusive of the adjustments made on account of Ind AS and also prior period credits and charges. The Commission is not making adjustments in the other expenses for SBU-T from the figures given in the petition, as all the adjustments are made under SBU-D.

3.139 ***Hence, the Commission approves the other expenses of Rs.69.94 crore as per the petition.***

Return on equity

3.140 KSEB Ltd in their petition claimed return on equity at the rate of 14% for the SBUs. According to KSEB Ltd, the RoE was claimed as per the Commisison's order dated 17-4-2017 amounting to Rs.217.59 crore. However, the equity as per accounts is determined in a different methodology and based on that the RoE would be Rs.151.83 crore.

Objections of the stakeholders

3.141 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

3.142 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.

3.143 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.

3.144 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 2016-17 is as shown below:

Table :36

Return on equity approved for the year 2016-17.

	SBU-G	SBU-T	SBU-D	KSEB Ltd
Equity as per Accounts (Rs. crore)	1,719.45	750.72	1,028.88	3,499.05
Percentage Share	49.14%	21.45%	29.40%	100.00%
Return on Equity (@14%) (Rs.crore)	240.72	105.10	144.04	489.86

3.145 ***As shown above, the the RoE approved for SBU-T for 2016-17 for the purpose of truing up is Rs.105.10 crore.***

Transmission charges or Transfer Cost of SBU-T

3.146 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.320.48 crore

(b) Terminal liabilities approved for SBU-T is Rs.84.75 crore

(c) Interest and finance charges

Interest and financing charges including interest on working capital for SBU-T is Rs.70.54 crore

(d) Depreciation :

The Approved level of depreciation for SBU-T is Rs.147.71 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.105.10 crore
(g) Other expenses approved is Rs.69.94 crore
(h) Non-Tariff income
The approved level of non-tariff income for SBU-T is Rs.35.46 crore

3.147 Thus, the total annual revenue requirements approved for the year 2016-17 for SBU-T is as shown below:

Table 37

Summary of Truing up of SBU-T

	SBU-T 2016-17		
Particulars	Approved in suo motu ARR order (Rs. crore)	As per truing up petition (Rs. crore)	Approved in truing up (Rs. crore)
Revenue from sale of power	881.3	991.11	763.05
Non-Tariff income	…	35.46	35.46
Total Revenue	**881.3**	**1,026.57**	**798.51**
Employee expense	…	260.29	233.76
R&M expenses	…	47.21	70.20
A&G expenses	…	64.99	16.53
Total O&M expenses	***193.82***	***372.49***	***320.48***
Terminal liabilities	87.14	127.07	84.75
Interest and financing charges	198.5	56.28	70.54
Depreciation	184.25	183.20	147.71
RoE	217.59	217.59	105.10
Other expenses	…	69.94	69.94
Gross Expenses	**881.3**	**1,026.57**	**798.51**
Revenue gap	0.00	0.00	0.00

3.148 The total gross expenses as per the petition was Rs.1026.57 crore and the net expenses is Rs.991.11crore. ***As against this, the Commission approves a gross expenses of Rs.798.51 crore and net expenses of Rs.763.05 crore. Accordingly, the Transfer cost of SBU-T is Rs.763.05 crore. which is transferred to SBU-D as the cost of intra state transmission.***

System availability

3.149 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.

3.150 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 2016-17

Transmission elements	Target availability	Actual Availability
220kV System	98.5%	98.56%
110kV system	98.5%	98.73%
66kV system	98.5%	98.86%
System availability	98.5%	98.65%

3.151 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.

3.152 As detailed in the sections given above, the Commission treat the entire annual allowable revenue requirement of Rs.763.05 crore of SBU-T as transfer cost of SBU-D.

CHAPTER -4
ENERGY SALES AND T&D LOSS

Energy Sales

4.1 The Commisison in the suo motu order on ARR&ERC for the year 2016-17 had approved energy sale of 20625.7 MU. The actual energy sale within the State in the year 2016-17 was 20038.25 MU and the sale including interstate sale is 20087.55MU. The sale within the state has increased by about 3.69% over the previous year as shown below:

Table 1

Energy sale for the year 2016-17

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

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

4.3 As mentioned, total energy sales show a modest increase of 3.69% during the year 2016-17 against 4.88 % in 2015-16. But the total consumption within the State (including drawal through open access and captive generation) was 20479.80 MU, which shows an increase of 5.24%. During the year 2016-17, 49.30 MU had been sold outside the state. Embedded open access consumers imported about 414.66 MU and power injected by IPPs for sale outside the State through open access was 45.08 MU.

After examining the details furnished by KSEB Ltd, the Commission approves the energy sale as per the accounts.

T&D Loss

4.4 In the suo motu ARR order, the Commission has approved a T&D loss level for the year 2016-17 as 13.90% and a loss reduction target of 0.30%. Of this, the transmission loss was estimated at 4.5%. In the distribution, HT level loss was approved at 5.5% and the loss for providing supply at LT level approved at 11.76% (HT loss+LT loss corresponding to LT sales), aggregating to a total T&D loss of 13.90%. In the petition , KSEB Ltd stated that as against the T&D loss target of 13.90% approved in the suo motu ARR order, the total loss level achieved in the year 2016-17 is 13.93%. As against the approved loss reduction target of 0.30%, KSEB Ltd could achieve a loss reduction target of 0.44%.

4.5 In the petition, KSEB Ltd has stated the transmission loss of 4.27% based on the total energy delivered to the transmission system of 23763.58MU. The total transmission system loss is estimated to be 1015.75MU. The voltage level transmission losses were segregated based on the load flow studies done upto 33kV level using the computer simulation models similar to the methodology suggested by FoR & CEA. The percentage level loss in the transmission system is furnished by KSEB Ltd is as shown below:

Table 2

Estimate of Transmission loss

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

4.6 The voltage level transmission and distribution loss during the year 2016-17 furnished by KSEB Ltd based on 66kV level loss at 4.27% corresponding to peak demand, that of 33kV level loss at 2.45%, and HT level loss at 5.5% as shown below :

Table 3

T&D loss as per the truing up petition

No	Particulars	Quantum	Unit
I	Total Generation and Power Purchase @ State periphery	23763.58	MU
Ii	Transmission loss @4.27%	1015.75	MU
Iii	Total energy input into the distribution system (i)-(ii)	22747.83	MU
Iv	Sale of energy at EHT level	1944.69	MU
V	Distribution loss associated with sale at EHT level[1]	0	MU
Vi	Energy available for sale at HT&LT levels (iii)-(iv)-(v)	20803.14	MU
Vii	Sale at 33 KV voltage level	118.36	MU
Viii	Loss @ 33 KV in %	2.45	%
Ix	Loss @ 33 KV	508.84	MU
X	Energy available for sale at 11 KV&LT levels (vi)-(vii)-(ix)	20175.94	MU
Xi	Sale of energy at 11 KV level	3321.51	MU
Xii	Loss at 11 KV (5.5% loss up HT level) [(vi) x 5.5%]-(ix)]	635.33	MU
Xiii	Loss at 11 KV level [(xi)*100/(x)]	3.15	%

No	Particulars	Quantum	Unit
Xiv	Loss up to HT level	5.5	%
Xv	Distribution loss associated with HT level	1144.17	MU
Xvi	Energy input for sale at LT level(x)-(xi)-(xii)	16219.10	MU
Xvii	Sale of energy at LT level	15068.35	MU
xviii	Distribution loss at LT level(xvi)-(xvii)	1150.75	MU
Xix	Distribution loss at LT level [(xviii)*100/(xvi)]	7.10	%
Xx	Distribution loss (xv)+(xviii) excluding EHT level	2294.92	MU
Xxi	Total distribution loss (xx)*100/(vi) excluding EHT level	11.03	%
Xxii	Total distribution loss including EHT sales [(xx) .100/(iii)]	10.09	%
[1] Accounted against item (ii)			

Objections of the Stakeholders

4.7 The Association stated that KSEBL claim of 13.93% as T&D losses for the year 2016-17 is not true and it is erroneously calculated. The KSEBL has submitted the sales for FY 17 is 20,038.25 MU, corresponding to this, the quantum of power purchased is 23,325.95 MU. Thus, the T&D losses arrived is 14.09% {(23,325.95-20,038.25)/ 23,325.95} and not 13.93% as claimed by the KSEBL. Hence the Association stated that since T&D losses being a controllable item the estimated loss target of 13.90% for FY 17 fixed by the Commission should be enforced and disallow the excess T&D loss at the cost of highest marginal cost stations. The differential quantum on account of lower T&D losses translates into 52.72 MU of energy.

Analysis and decision of the Commission

4.8 As per the details furnished by KSEB Ltd the total sale of electricity within the state were 20038.25 MU and 49.30 MU were sold outside the State. There is an export of energy by Philips Carbon Black Limited (45.08MU) and purchase by consumers through open access to the tune of 414.66MU (435.60 MU including loss).

4.9 KSEB Ltd stated that the total loss reducitoin achieved in 2016-17 was 0.44%, which is better than the target of 0.30% fixed by the Commission. The loss reduction target and actual loss reduction achieved by KSEB Ltd in previous years are given below:

Table 4

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
2016-17		0.30	0.44	13.93

4.10 According to KSEB Ltd the total energy input at the KSEB Ltd periphery is 23763.58 MU and the total loss for the year is 3310.67MU. Thus the T&D loss as a percentage of energy input is 13.93%. Since the actual T&D loss in 2015-16 is 14.37%, the T&D loss reduction achieved is 0.44% (14.37%-13.93%). The loss reduction approved by the Commission for the year 2016-17 was 0.30%. Hence KSEB Ltd stated that the loss reduction achieved is higher than the target approved for the year 2016-17.

4.11 The Commission has examined the details furnished by KSEB Ltd with respect to the approved figures. Accordingly T&D loss for the year is worked out as shown below:

Table 5

T&D loss approved for the year 2016-17

	Gross Generation	Auxiliary consumption	Net Energy
	(MU)	(MU)	(MU)
Hydel	4,319.08	26.97	4,292.11
Thermal	43.55	2.61	40.94
Wind	1.71	0.0012	1.7088
Solar	5.2	0.0345	5.1655
Total Internal Generation	4,369.54	29.6157	4,339.92

Total Energy purchased by KSEB Ltd	19,734.92
Total Energy	24,074.84
Energy injected by Privates IPPs for sale outside	45.08
Energy purchase by open access consumers	435.6
Total Generation and Purchase including purchase by others	**24,555.52**
Sale outside the State by KSEB Ltd	49.3
Sale outside by private IPPs	43.06
External PGCIL Loss	684.76
Net Energy available in Kerala Grid for consumption within in the State	**23,778.40**
Energy sale within the State by KSEB Ltd	20,038.50
Energy consumed by open access consumers	414.66
Total energy consumption within the State	**20,453.16**
Total T&D Loss within inthe system	3,325.24
% T&D Loss in KSEB Ltd System	13.98%
Actual T&D Loss for the year 2015-16	14.37%
T&D Loss reduction achieved	0.39%

4.12 Thus, as shown above, the T&D loss level for the year is 13.98%, which is lower than the previous year actual T&D loss of 14.37%. Thus, the T&D loss reduction for the year is 0.39% (14.37%-13.98%). The T&D loss reduction of 0.39% is higher than the target level of 0.30%. Since the difference is only 0.09%, no adjustment is made for the loss reduction.

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

5.1 **K**erala State Electricity Board Limited supplies electricity to about 119.95 lakh consumers in the State. Of which domestic consumers are about 93.85 lakh, 19.95 lakh commercial consumers, 1.42 Lakh industrial consumers, 4.47 Lakh agricultural consumers and balance 0.26 lakh consumers include public lighting and other HT& EHT consumers. The key statistics of distribution network is given below:

Table 1
Key parameters of SBU-D

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

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

Table 2
Growth of the system

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

5.3 According to KSEB Ltd, there had been no power cut or load shedding enforced in the state during the year 2016-17 because of shortage of supply except for emergency supply interruptions caused by uncontrollable factors

5.4 The total revenue from sale of power for the year 2016-17 is Rs.11,036.77 crore. In order to service the consumers, SBU-D manages 75,579 distribution transformers and 59,496 circuit kilometers of 11kV & 22kV HT lines.

Revenue from Operations :

5.5 The income from operations consists of revenue from following sources

i. sale of power ie., tariff income and

j. other income.

Tariff income

5.6 The SBU-D, is the largest distribution licensee among all the 9 distribution licensees in the State. The total revenue for the sale of 20087.55MU as per the petition is Rs.11036.78 crore. Of this, revenue from sale within the State was Rs.11023.60 crore for a sale of 20038.25MU. Balance 49.30 MU was the sale outside the State earning an amount of Rs. 12.27 crore. Further, an amount of Rs.0.91 crore was also booked under miscellaneous item.

Table 3

Revenue from Sale of Power for SBU-D

	Category	Energy sales (MU)		Revenue (Rs. crore)		Average Tariff (Rs./kWh)	
		Approved in suo motu ARR order	Actual	Approved in suo motu ARR order	Actual	Approved in suo motu ARR order	Actual
1	Domestic	10656.32	10280.74	4009.93	3953.34	3.76	3.85
2	Industrial	1109.91	1131.91	661.5	754.72	5.96	6.67
3	Agriculture	283.41	321.98	67.73	102.01	2.39	3.17
4	Commercial	3030.24	2957.95	2513.67	2709.04	8.30	9.16
5	Public Lighting	378.45	375.77	141.92	156.64	3.75	4.17
	HT Total	3299.37	3301.83	2442.15	2361.385	7.40	7.15
6	EHT Total	1026.55	826.38	580	492.7	5.65	5.96
7	Railway Traction	232.06	229.59	133.43	130.52	5.75	5.68
8	Bulk Supply	609.39	612.1	350.39	363.25	5.75	5.93
9	**Total sales (within**	**20625.7**	**20038.25**	**10900.72**	**11023.6**	5.29	5.50
10	Interstate sale		49.3		12.27		2.49
11	Misc				0.91		
12	Total	20625.7	20087.55	10900.72	11036.78	5.29	5.49

5.7 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.

Analysis and decision of the Commission

5.8 As per the petition, the revenue from tariff for the year was Rs.11036.78 crore for SBU-D. The licensee has given tariff category wise sales and revenue realization for the year 2016-17. The average revenue earned per unit of sale was worked out to be Rs.5.49 and the highest average revenue was contributed by the LT Commercial consumers (Rs.9.16/unit). Since the ultimate sale to the consumers is effected through SBU-D, the entire revenue from sale of power is realized by SBU-D.

5.9 In addition to the the revenue from sale of power within the State, KSEB Ltd also sold 49.30MU outside the State for an amount of Rs.12.27 crore at an average rate of Rs.2.49/unit. Thus the total revenue from sale of power including miscellaneous revenue of Rs.0.91 crore was Rs.11036.78 crore.

5.10 ***Considering the details furnished by KSEB Ltd, the Commission approves the revenue from sale of power of Rs.11036.78 crore as furnished by KSEB Ltd for the year 2016-17.***

Non Tariff income

5.11 As per the audited accounts, the non Tariff income of SBU-D is Rs.525.15 crore and as per the petition the same is Rs.479.82 crore. The details of non-tariff income are shown below:

Table 4
Non Tariff Income of SBU-D for 2016-17

No.	Particulars	As per Audited accounts (Rs.crore)	As per Truing Up petition (Rs.crore)
1	Interest on staff loans and advances	0.20	0.20
2	Income from statutory investments	0.24	0.24
3	Income from trading	0.01	0.01
4	Income from rent of land or buildings	5.21	5.21
5	Income from sale of scrap	24.28	24.28
6	Income from staff welfare activities	0.00	0.00
7	Rental from staff quarters	0.17	0.17
8	Excess found on physical verification	0.15	0.15
9	Interest on investments, fixed and call deposits and bank balances	7.14	7.14

No.	Particulars	As per Audited accounts (Rs.crore)	As per Truing Up petition (Rs.crore)
10	Interest on advances to suppliers/contractors	0.42	0.42
11	Income from hire charges from contractors and others	0.01	0.01
12	Income from ROW for Cable system	33.74	33.74
13	Income from advertisements, etc.	0.00	0.00
14	Miscellaneous receipts	121.63	121.63
15	Commission for collection of electricity duty	7.96	7.96
16	Interest on delayed or deferred payment of bills	0.00	0.00
17	Rebate from Central Generating Stations	141.93	141.93
18	Revenue from late payment surcharge		0.00
19	Recovery for theft and pilferage of energy	0.10	0.10
20	Meter/metering equipment/service line rentals	92.04	92.04
21	Reactive Energy Charges	5.44	5.44
22	Wheeling charges Recoveries	0.40	0.40
23	***Miscellaneous Charges from consumers***		
24	UCM	0.01	0.01
25	Other Items	29.94	29.94
26	TF/RF	16.96	16.96
27	Other Levies On Fee	15.09	15.09
28	LE/SC Minimum	1.48	1.48
29	Meter Box Charges	0.00	0.00
30	Processing Fee for Allocation of Power	2.44	2.44
31	STOA - Registration and Application fee	0.11	0.11
32	STOA - Open Access charges	14.05	14.05
33	Solar Connectivity Fee	1.02	1.02
34	Penal charge for making the meter inaccessible for billing	0.01	0.01
35	Energisation charges	2.96	2.96
36	**Total**	**525.15**	**525.15**
37	Less: Depreciation claw back		45.33
38	Balance		**479.82**

5.12 KSEB Ltd stated that the write back of depreciation on account of depreciation for the assets created out of contribution and grants was included under the miscellaneous receipts (Rs.121.63 crore). Hence, the same is to be deducted and the non-Tariff income of Rs.479.82 crore (Rs.525.15 crore- Rs.45.33 crore) alone is to be considered for SBU-D.

5.13 KSEB Ltd during the hearing had stated that Rs.45.94 crore was received as income from sale of LED bulbs whereas an amount of Rs. 23.59 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.

Objections of stakeholders

5.14 There were no specific objections raised by consumers regarding non-tariff income.

Provisions in the Regulations

5.15 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

5.16 The Commission has examined the details furnished by KSEB Ltd. The Commission notes that there was substantial reduction of Rs.201.93 crore in the non-tariff income as compared to previous year for KSEB Ltd as a whole (Rs.537.51 crore for 2016-17 against Rs.739.44 crore in 2015-16). This was mainly on account of the adjustment of electricity duty to the tune of Rs.500 crore made against the dues of KWA and a portion of the same booked under non-tariff income in 2015-16.

5.17 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 receipts 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.

5.18 In the petition, KSEB Ltd has also stated that an amount of Rs. 23.59 crore towards the expenses incurred for the distribution of LED bulbs 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, KSEB Ltd requested that only net income from sale of LEB bulbs to be considered for truing up.

5.19 The Commission has examined the matter. As per the details furnished by KSEB Ltd, the income received from sale of LED bulbs (Rs.45.94 crore) is accounted under income from sale of scrap/tender forms et., for KSEB Ltd as a whole, as shown below:

Table 5

Income from sale of scrap/tender forms etc., for KSEB Ltd

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

5.20 As mentioned **in** the petition, an amount of Rs.23.59 crore is included under the A&G expenses of KSEB Ltd. Hence, the Commission is of the view that the adjustment is to be made against the non-tariff income by reducing the expenses towards distribution of LED bulbs, so that only net income from LED is to be accounted as part of Non-Tariff income. Since these adjustments are not made under SBU-G and SBU-T, the entire adjustment is made under SBU-D.

5.21 As mentioned above, the Commission considered the adjustments towards booking write back of depreciation and expenses towards LED bulbs distribution in the non-tariff income.

Table 6
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	525.15	525.15
Less write back of Depreciation	45.33	45.33
Less Expenses towards LED distribution		23.59
Net Non-Tariff income	**479.82**	**456.23**

5.22 ***Accordingly, Rs.456.23 crore is approved as non-Tariff income for the year 2016-17for the purpose of truing up.***

Total Income

Total income of SBU-D is as shown below:

Table 7
Total income of SBU-D

	SBU-D	
Particulars	Petition (Rs.crore)	Approved (Rs.crore)
Revenue from sale of power	11036.77	11036.78
Non-Tariff income	479.82	456.23
Total Revenue	**11516.59**	**11493.01**

5.23 KSEB Ltd in their petition has claimed Rs.11516.59 crore as revenue for SBU-D. Against this submission of KSEB Ltd, ***the Commission approves the total income of SBU-D as Rs.11493.01 crore consisting of Rs.11036.78 crore as revenue from sale of power and Rs.456.23 crore as Non-Tariff income***

Expenses of SBU-D

5.24 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 8
Expenses of SBU-D for the year 2016-17

Particulars	Approved in the suo motu ARR order (Rs.crore)	Actual (Rs.crore)	As per True up petition (Rs. crore)
Cost of Generation (SBU-G)	672.61	744.39	695.23
Cost of Power Purchase	7,145.22	6,907.96	7,047.79
Cost of Inter-State Transmission	607.54	485.36	503.62
Cost of Intra-State Transmission (SBU-T)	881.30	951.29	991.11
Interest & Financial Charges	981.79	853.59	839.88
Depreciation	58.12	354.17	245.51
Employee cost		1,788.27	1,788.27
R&M expenses		190.21	190.21
A&G expenses		300.11	300.11
O&M Expenses	1,326.62	2,278.59	2,278.59
Terminal benefits		1,012.16	1,012.16
Return on equity (14%)	68.64	-	68.64
Other Expenses	-	(-)90.39	(-)61.35
Total ARR	11,741.84	13,497.12	13,621.18
Less Non-Tariff Income	441.00	343.09	479.82
Net Revenue Requirements	11,300.84	13,154.03	13,141.36

5.25 The Commission has examined each item of expenses separately and is detailed in the subsequent sections:

Cost of Generation (Transfer cost of SBU-G)

5.26 Cost of generation claimed by KSEB Ltd is the transfer cost passed on by SBU-G. As per the petition, the net transfer cost of SBU-G (cost of internal generation -Hydel and LSHS Stations) is Rs.695.23 crore. ***Against the claim the Commission has in Chapter 2 of this Order approved the Transfer cost of SBU-G as Rs.646.26 crore.***

Cost of Intra State Transmission (Transfer Cost of SBU-T)

5.27 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.991.11 crore. **Against this claim, the Commission in Chapter 3 has approved the Transfer cost of SBU-T as Rs.763.05 crore.**

Cost of power purchase

5.28 The Commission had approved Rs.7752.77 crore for the purchase of 19579.06MU from different sources for 2016-17. The actual purchase was 19050.17 MU and cost of power purchase including intra-state transmission charges is Rs.7551.41 crore. Of this, inter-state transmission charges paid to PGCIL is Rs.503.62 crore. Summary of power purchase cost is as given below:

Table 9

Summary of the cost of power purchase

No	Particulars	**Approved in** suo motu ARR order		**Actual as per truing up petition**	
		Energy (MU)*	**Cost (Rs crore)**	**Energy (MU)**	**Cost (Rs crore)**
1	Central Gen. Stations	9734.09	3203.32	10205.8	3413.34
2	Small IPPs within the State	142.42	45.87	172.06	50.08
3	*RGCCPP, Kayamkulam (net)*	*0*	*0*	*6.77*	*216.52*
4	*BSES*				*-8.95*
4	*KPCL (Settlement)*	*0*	*0*	*0*	*26.59*
3	IPPs / Traders outside state	7302.84	2936.16	7250.91	2965.69
4	Traders / Exchanges/UI	2399.71	959.88	1414.63	384.52
5	Transmission charges		607.54		503.62
6	Total	19579.06	7752.77	19050.17	7551.41

*Energy at KSEB periphery

5.29 KSEB Ltd in their letter dated 3-9-2018 had stated that KSEB Ltd had procured power from sources approved by the Commission as per the Tariff order dated 17.04.2017 except for RGCCPP and Solar IPPs. The details of approval of power purchase from traders/generators are included as Appendix D1 to the petition. KSEB Ltd further stated that while approving ARR of KSEB Ltd for 2016-17 and 2017-18, the Commission had disallowed the fixed charges for RGCCPP and directed KSEB Ltd to approach CERC for lowering the tariff by applying relaxed norms considering the special case of RGCCPP. After discussions at various levels NTPC has agreed for a negotiated cost of Rs 200 crore fixed charge per annum for the tariff period 2014-19 and the same was intimate to the Commission already. Regarding solar IPPs (Kasargod Solar Park), no power purchase agreement was entered during 2016-17 and hence no payment was released during 2016-17. KSEBL has initialed draft PPA with Kasargod Solar Park on 31.03.2017 and submitted before the Commission for approval.

5.30 In addition to the above, KSEB Ltd purchased power from sources such as power exchanges, through deviation settlement mechanism and through swap arrangements. According to KSEB Ltd for such pruchase no prior approval was specified as per regulation 79(2)(e)&(f).

5.31 KSEB Ltd further stated that the cost of power purchase for 2016-17 as per the accounts is Rs. 7393.32 crore and the amount claimed in the petition is Rs.7551.41 crore. This difference in power purchase cost is due to the adjustments made as part of adoptioin to Ind AS. KSEB Ltd also stated that as part of the finalization of accounts as per Ind AS Rs.158.09 crore has been included in 2015-16 and the same was reversed in 2016-17. Hence the power purchase cost for 2016-17 was understated by Rs.158.09 crore as the same was not claimed by KSEB Ltd in 2015-16. Hence, KSEB Ltd requested the Commission to approve the power purchase for 2016-17, including the claim of Rs.158.09 crore (Rs.7551.41 crore=Rs.7393.32 crore+Rs.158.09 crore) which pertains to the year 2015-16 but adjustments were made in the 2016-17.

5.32 As per the details furnished in the petition, power purchase cost for SBU-D is under following heads, and the same is examined separately:

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)
d. Adjustments to power purchase cost as part of Ind AS

5.33 Before examining the each of the items, the provisions of the Regulations are quoted below:

Provisions in the Regulations

5.34 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.

5.35 Based on the above provisions, the purchase of power from each source is analysed separately.

a. Power from Central Generating Stations (CGS)

5.36 The actual energy purchased from CGS at KSEB periphery was 10205.8 MU at a cost of Rs.3413.34crore. This amount include redit noted received from Central Stations to the tune of Rs.114.66 crore. The details of various CGS sources and the cost as per the petition are as shown below:

Table 10

Power Purchased from Central Generating Stations for 2016-17

Station	**Approved in** suo motu ARR order		**As per truing up petition**	
	Energy* (MU)	**Cost (Rs crore)**	**Energy* (MU)**	**Cost (Rs crore)**
Talcher	2874.29	672.7	3065.45	810.65
NLC Exp Stage I	423.13	157.57	468.63	195.93
NLC II Stage I	363.07	113.67	465.24	215.99
NLC II Stage II	518.77	163.08	609.87	283.66
RSTPS I & II & III	1655.64	549.51	1825.03	546.98
RSTPS III	416.46	155.32	441.44	140.97
Maps	122.49	26.79	137.75	33.94
Kaiga Stage I & II	421.06	136.51	476.02	158.51
Simhadri Exp	617.5	277.91	669.47	286.73
Kudamkulam	1009.38	420.21	1060.33	362.09
NLC II exp	401.4	182.8	190.15	104.56
NTECL Vallur JV	341.93	132.28	311.57	139.86
NTPL Tuticorin	492.86	183.17	484.84	209.24
Kudgi Unit I	18.67	8.03	0	0
Bhavini	57.44	23.79	0	0
Jhajjar	0	0	0	38.9
Less: Credit notes received in 2017-18				-114.66
Total	**9734.09**	**3203.32**	**10205.8**	**3413.34**

Energy purchased at KSEB Ltd bus;

5.37 In this regard, KSEB Ltd has stated that Bhavini nuclear plan and Unit I of Kudgi power plant expected to br commissioned in 2017 were not commissioned in 2016-17. Further, NLC II Expansion and NTECL Vallur had only a plant availability factor of 30.925% against the normative availability of 80%. Hence there was shortage of 317.72 MU from the approved quantum from the above plants. However, overall the availability from CGS was higher than 471.71MU compared to the approved level becase of the better performance of these stations.

Objections of stakeholders

5.38 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 should be deducted from the marginal plant

Analysis and decision of the Commission

5.39 In 2016-17, KSEB Ltd sourced 10205.80 MU of power from Central Generating Stations from these stations at a cost of Rs.3413.34 crore, which included an amount of Rs.114.66 crore adjusted against the credit notes received in 2017-2018.

5.40 ***After examining the details furnished by KSEB Ltd the Commission approves the purchase of power from CGS of Rs.3413.34 crore for the year 2016-17.***

b. Purchase of power from IPPs within the State

5.41 During this period, KSEB Ltd had also procured power from IPPs within the State. The details of IPPs except liquid fuel stations of RGCCPP, BSES and KPCL are given below:

Table 11

Power purchase from wind and other small IPPs

	Approved in suo motu ARR order		Audited Accounts	
Station	Energy (MU)	Cost (Rs crore)	Energy (MU)	Cost (Rs crore)
Wind- Ramakalmedu & Agali	65	20.07	74.96	22.67
Wind – Ahalya	0	0	17.37	6.99
Ullunkal	19.44	4.74	12.98	3.15
Iruttukanam Stage-I	18	4.86	13.15	
Iruttukanam Stage-II	6	1.62	6.84	5.27

Karikkayam HEP	28	11.65	21.8	9.01
Meenvallom	5.56	2.71	5.98	2.92
Kallar of Idukki District Panchayat	0.13	0.07	0.03	0.02
Mankulam of Grama Panchayat	0.29	0.14	0.08	0.04
Solar IPPs			10.09	
Captive Power plants			8.79	
Total	142.42	45.87	172.06	50.08

5.42 The power from solar IPPs such as Kasaragod Solar Park and Solar IPPs Kuzhalmannam have injected 10.09MU, but no PPA was signed by KSEB Ltd with the developers. Tariff of all the other IPPs were approved by the Commission. KSEB Ltd also stated that power from captive power projects such as Maniyar and Kuthungal SHPs are injected in to the grid, but the same has been considered only for the purpose of loss calculations.

Analysis and decision of the Commission

5.43 ***The Commission notes that KSEB Ltd procured 163.27MU (excluding captive plants) from the various IPPs within the State for an amount of Rs.50.28 crore The Commission approves the power from these sources as per the details furnished in the petition***

Purchase of power from RGCCPP

5.44 The Commission **in** the suo motu ARR&ERC order, did not approved the power purchase from RGCCPP. However, during April 2016, demand increased unprecendently due to severe summer and also social factors contributed by the general elections. The day time demand exceeded to 3300 MW to 3400 MW during which the support of hydel machines was not sufficient. The consumption recorded was very high to the tune of 2273 MU. The maximum demand touched 4004 MW on 27.04.2016 and maximum energy consumption was 80 MU. This along with the deficit due to the reduction in import due to forced outage of CGS and non availability of required power from day ahead market further aggravated the situation. KSEB Ltd was forced to schedule thermal stations within the State such as RGCCPP, KDPP and BDPP in order to avoid load shedding. RGCCPP had to be scheduled for 4 days in April 2016 from 26.04.2016 to 30.04.2016 In order to meet the peak demand without load restriction owing to the deficit due to above mentioned factors. However, for balance period in that year, KSEB Ltd had supplied energy to the plant at UI rate. This amounts to 8.16 MU. Thus the net energy drawn from RGCCPP was 6.77 MU. KSEBL had, thus, scheduled 14.93 MU for a total power purchase cost of Rs 216.52 crore (including fixed charges of Rs.207.13 crore).

5.45 KSEB Ltd also stated that while approving ARR of KSEBL for 2016-17 and 2017-18, the Commission had disallowed the fixed charges for RGCCPP and directed KSEB Ltd to approach CERC for lowering the tariff by applying relaxed norms considering the special case of RGCCPP. KSEB Ltd had filed a petition before CERC for a review of the Tariff order and CERC directed KSEB Ltd and NTPC to undertake mutual discussions for settlement of issues and report the outcome. After discussions at various levels NTPC has agreed for a negotiated cost of Rs 200 crore fixed charge per annum for the tariff period 2014-19. KSEB Ltd had furnished these details to the Commission.

Analysis and decision of the Commission

5.46 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. Thereafter, 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.

5.47 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.

5.48 In compliance of the directions of the Commission, KSEB Ltd in its letter dated 12-6-2018 furnished the 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.

5.49 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.

5.50 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.

5.51 ***Thus, the Commission for the purpose of truing up accept the fixed charges at Rs.200 crore for 2016-17 and the total cost for RGCCPP is approved as Rs 209.39 crore (Rs.216.52-7.13 crore).***

5.52 *The Commission notes that as per the supplementary agreement entered into between NTPC Ltd and KSEB on 15-2-2013, it is specifically mentioned as follows:*

> *"…… However, after 5 years from 1-3-2013, KSEB shall have the discretion not to schedule power from the existing Kayamkulam station based on its cost economics, mutually discussed and agreed upon."*

Further, as communicated vide letter no. KSEB/TRAC/CERC/RGCCPP/2018-19/4809 dated 12-6-2018, KSEB Ltd and NTPC had based on discussions agreed that the annual fixed cost payable by KSEB Ltd is reduced to Rs.200 crore for the control period 2014-19 with the liberty of reviewing it in 2018-19. ***Considering the above agreement, the Commission hereby directs that KSEB Ltd shall promptly take up with GoK/NTPC Ltd the matter of***

exercising the power of review as per above terms of agreement with NTPC Ltd.

KPCL Settlement :

5.53 An amount of Rs.26.59 crore has been provided in accounts comprising a balance amount of Rs.13.25 crore payable as settlement deed dated 15.11.2014 and differential taxes reimbursement for five years from 2006-07 to 2010-11 amounting to Rs.13.34 crore towards KPCL.

5.54 ***The Commission after considering the details approves the amount due to KPCL at Rs.26.59 crore***

Adjustment of charges of BSES

5.55 KSEB Ltd in their petition has shown that an amount of Rs.(-)8.95 crore for BSES. The Commission approves the same as per the petition.

c. Power Purchase from Interstate Generating Stations, Traders, exchanges and DSM:

5.56 KSEB Ltd stated that with the approval of the Commission, KSEB Ltd has entered into agreements with various generators/traders outside the state for purchase of energy from outside the State. The Commission has approved 7302.84MU at a cost of 2936.16 crore from various generators including power from DBFOO basis against which KSEB Ltd has purchased 8959.273 MU for a total cost of 3350.22 crore from various sources as shown below:

Table 12

Power purchase from traders & other IPPs from outside the state

No	Source	Approved in suo motu ARR order (MU)	Approved Cost (Rs crore)	Actual Energy (MU)	Actual Cost (Rs crore)
(a)	**Long term contracts**				
	Maithon Power Ltd	1010.18	374.38	1083.43	387.59
	Maithon Power Ltd	790.40	275.60	763.31	272.98
	DVC Mejia	683.99	278.47	696.13	255.55
	DVC RTPS	300.14	129.30	224.16	96.93
	Jindal Power LTd	1026.49	369.54	1113.32	431.63
	Jhabua Power LTd	257.48	106.85	124.10	52.24
	Sub total	**4068.68**	**1534.14**	**4004.45**	**1496.91**
(b)	**Medium Term contracts**				
	NVVN	2017.03	909.13	2047.82	923.34
	PTC BALCO	661.07	231.67	663.27	257.10
	PTC BALCO- previous bills				11.44
	Subtotal medium term contracts	**2678.10**	**1140.80**	**2711.08**	**1191.88**
(c)	**Short term contracts**				
	PTC SIMHAPURI	380.74	202.24	381.06	222.28

	M/s DVC thru M/s PTC	29.30	9.25	28.62	9.25
	M/s Jindal Power Ltd thru M/s PTC	146.02	49.73	125.70	45.37
	M/s JITPL through M/s TPCIL	2399.71	959.88	65.32	25.30
	Power purchase from IEX			484.62	179.16
	Power purchase from PXIL			117.31	42.24
	Power transfer thru DSM			740.70	137.61
	Power availed thru swap arrangement			6.68	0.21
	Subtotal short term contracts	**2955.77**	**1221.10**	**1950.01**	**661.42**

5.57 The approval given by the Commission for the sources are furnished by KSEB Ltd and is as given below:

Table 13

Details of approvals for power purchase

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

5.58 In the case of Jabua power, KSEB Ltd stated that Jhabua Power had not supplied power to KSEB Ltd from 1-1-2017 due to outage caused by the high vibration of its generator. Hence KSEB Ltd., granted consent to Jhabua Power to supply power from alternate source, ie., Sembcorp Gayatri Power (SGPL), Andhra Pradesh, on the condition that any financial liability on account of change in source of supply would not be borne by KSEBL. Accordingly, Jhabua Power supplied power from SGPL from 17th February 2017 on STOA basis. Hence there was reduction in energy availability as compared to the approved quantum.

5.59 KSEBL had availed 2711.08 MU for a total cost of Rs 1191.08 crores through medium term contracts (Case-1 bidding) from traders NVVN and PTC. Further, KSEBL had availed 381.06 MU from Simhapuri through PTC for a total amount of Rs 222.28 crores, 28.62 MU from DVC through PTC for Rs 9.25 crore and 125.70 MU from M/s Jindal through PTC for a total amount of Rs 45.37 crore through short term contracts.

5.60 The Commission had approved 2399.71 MU from short term sources at a total cost of Rs 959.88 crore. Against this, KSEBL availed 1414.63 MU at a total cost of Rs 384.52 crore @ Rs 2.72 per unit against the approved rate of Rs 4.33 per unit which is inclusive of power contracted through TPCIL from JITPL which was approved vide order dated 19-12-2016. KSEBL procured 484.62 MU from energy exchange for a total amount of Rs. 179.16 crore and 117.31 MU from power exchange for a total amount of Rs. 42.24 crore. Further, Rs.15 crore has been incurred for the purchase of REC certificates in compliance with the direction of the Commission as per order dated 30.03.2016 on RP-1 of 2015 (Rs.8.625 crore from IEX and Rs.6.375 crore from PXIL). Out of the 1414.63MU, 740.70 MU was obtained through DSM for Rs.137.61 crore at Rs. 1.86 per unit.

Provisions in the Regulations

5.61 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. "

5.62 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

5.63 As per Regulation, KSEB Ltd is required to seek approval of the Commission for procurement of power. In the petition, KSEB Ltd furnished the details of approvals taken for purchase of power from different sources

5.64 The Commission has approved 9702.55 MU from long term, medium term and short term sources at a cost of Rs3896.04 crore Of this, the Commisison has approved 2399MU from short term sources (power exchanges, traders etc,) without mentioning sources at a rate of Rs.4/unit for an amount of Rs.959.88 crore Against this, KSEB Ltd could purchase 1414.63MU from IEX, PXIL, Deviation settlement mechanism (DSM) and through swap arrangement at a cost of Rs.384.52 crore at an average cost fof Rs. 2.72/unit.

5.65 After examining the details furnished by KSEB Ltd, the Commission approves the power purchase cost from long term, medium term and short term sources for 8665.54MU at a cost of Rs.3350.21 crore.

d. Inter-state Transmission charges paid to PGCIL:

5.66 *During the year 2016-17, KSEB Ltd had paid Rs 503.62 crore to PGCIL as transmission charges as against Rs.607.54 crore approved by the Commission. The transmission charges does not include transmission charges for the power sourced from long term (except DVC and Maithon),medium term and short term sources as the cost of power is inclusive of transmission charges*

5.67 ***After considering the details, the Commission approves the transmission charges of Rs.503.62 crore for the purpose of truing up***.

Ind AS adjustments

5.68 KSEB Ltd has stated that the Power purchase cost and interstate transmission charges for 2016-17 as per Ind AS accounts is Rs.7393.32 crore. However as per the petition, KSEB Ltd in the petition claimed Rs.7551.41 crore, ie, Rs.158.09 crore more than the amount booked as per accounts. According to KSEB Ltd, as part of finalization of accounts as per Ind AS, Rs.158.09 crore has been included in restated accounts of 2015-16 and the same amount which was earlier included under 2016-17 was reversed. Hence, power purchase cost for 2016-17 is understated by Rs.158.09 crore as the same has not been claimed by KSEB Ltd in its truing up petition for 2015-16.

5.69 KSEB Ltd also stated that this fact is disclosed in the Reconciliation Statement of P&L Account as reported under I GAAP and IND AS (Page 11) in the audited accounts for 2016-17, wherein a sum of Rs.158.09 crore towards power purchase, has been included under 2015-16. This expense was not claimed in the truing up of accounts for 2015-16, but booked for the subsequent years. According to KSEB Ltd, the power purchase cost as per audited accounts for the year 2016-17 is Rs. 7393.32 crore as per Ind AS, whereas if would have been Rs.7664.40 crore under the old IGAAP format. Hence, KSEB Ltd requested to approve the Rs.7551.41 crore (Rs.7393.32 crore + Rs.158.09 crore) as power purchase cost in 2016-17.

5.70 The details of adjustment made as part of Ind AS adoption is as shown below:

Table 14

Adjustments as part of Ind AS in power purchase cost for the year 2015-16

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

5.71 The reason for variation amounting to Rs.271.08 crore (Rs.7664.40 crore – 7393.32 crore) is furnished below:

Table 15

Ind AS adjustments made in the power purchase cost year 2016-17

No	Party		Amount (Rs. crore)	Remarks
1	PTCI Ltd - Credit note wrongly adjusted rectified		(0.29)	Wrongly adjusted in Account Code: 61411- income from short term open access Account
2	Maithon Power Limited		(0.62)	Provision created based on the draft audit report for the FY 2016-17
3	NTPC		(118.24)	
4	Damodar Valley Corporation		(1.71)	
5	MAPP		0.00	

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

5.72 As shown above, the amounts provided in 2015-16 has been reversed in full. In addition certain adjustments were also made especially to account the credit notes obtained in 2017-18. Hence all adjustments made in 2016-17 are duly captured in the truing up petition.

Analysis and decision of the Commisison

5.73 The Commission has examined the details furnished by KSEB Ltd regarding the adjustments made as part of the first time adoption of Ind AS by KSEB Ltd. These adjustments are as per the aduit observarions made in the 2015-16, which amounts to Rs.158.09 crore. According to KSEB Ltd, since, these adjustments were not included in the previous year accounts, the amount may be allowed as part of the truing up for 2016-17. The Commisison also notes that the amounts included as part of the adjustments for 2015-16 has been reversed from the accounts of 2016-17, except for the adjustments to the tune of Rs.8.95 crore, which pertains to 2014-15 Hence, there is no double booking of expenses on account of these adjustments. Considering these, the Commission approves the Rs158.09 crore as adjustment on account of Ind AS adjustment to Power purchase cost.

Summar of power purchase cost for 2016-17 for SBU-D

5.74 KSEB Ltd in its letter dated 3-9-2018 has furnished the details of power purchase cost for the year 2016-17 as shown below:

Table 16

Details of power purchase cost for 2016-17

No.	Source of Power (Station wise)	Quantum at exbus	Quantum at KSEB end	Capacity charges	Incentive	Variable charges	Other charges including supplementary claims	Total
		MU	MU	Rs.crore.	Rs.crore.	Rs.crore.	Rs.crore.	Rs.crore.
I	**Central Generating Stations**							
2	RSTPS (Unit 1 to 6)	1,894.97	1825.03	101.73	7.40	408.30	29.56	546.98
3	RSTPS (Unit 7)	458.46	441.44	39.39	0.00	99.14	2.44	140.97
6	TALCHER STAGE II U 3, 4 ,5 & 6	3,183.25	3065.45	230.68	7.89	525.71	46.37	810.65
7	Simhadri TPS Stage II	694.95	669.47	102.02	0.00	188.93	-4.22	286.73
8	NLC II STAGE 1	483.07	465.24	31.21	0.29	128.51	55.97	215.99
9	NLC II STAGE 2	633.20	609.87	41.38	0.00	168.74	73.54	283.66
10	NLC I EXPANSION	486.50	468.63	55.54	0.49	123.85	16.06	195.93
11	NLC II EXPANSION	197.47	190.15	42.11	0.00	48.80	13.65	104.56
12	NTPL	503.37	484.84	78.22	0.00	130.81	0.20	209.24
13	VALLUR STPS	323.52	311.57	56.71	0.00	80.18	2.97	139.86
14	MAPS	143.02	137.75	0.00	0.00	30.50	3.44	33.94

No.	Source of Power (Station wise)	Quantum at exbus	Quantum at KSEB end	Capacity charges	Incentive	Variable charges	Other charges including supplementary claims	Total
15	Kaiga	494.27	476.02	0.00	0.00	154.21	4.30	158.51
16	KKNPP	1,100.78	1060.33	0.00	0.00	357.57	4.52	362.09
	Jhajjar	0.00	0.00	0.00	0.00	0.00	38.90	38.90
	Less credit notes							-114.66
	Sub Total CGS	**10,596.83**	**10205.80**	**778.97**	**16.07**	**2445.24**	**287.71**	**3413.34**
	IPPS							
17	RGCCPP	14.93	14.93	207.13		10.92	-1.53	216.52
18	BSES	0.00	0.00	0.00		-8.95		-8.95
19	KPCL	0.00	0.00	0.00		26.59		26.59
20	Wind- Ramakalmedu & Agali	74.96	74.96	0.00		22.67		22.67
21	Wind Ahalya	17.37	17.37	0.00		6.99		6.99
22	Ullunkal	12.98	12.98	0.00		3.15		3.15
23	Iruttukanam Stage-I	13.15	13.15	0.00		5.27		5.27
24	Iruttukanam Stage-II	6.84	6.84	0.00		0.00		0.00
25	Karikkayam HEP	21.80	21.80	0.00		9.01		9.01
26	Meenvallom	5.98	5.98	0.00		2.92		2.92
27	Kallar of Idukki District Panchayat	0.03	0.03	0.00		0.02		0.02
28	Mankulam of Grama Panchayat	0.08	0.08	0.00		0.04		0.04
29	Maniar & Kuthungal & PCBL (net injection)	8.79	8.79	0.00		0.00		0.00
30	Solar IPP	10.09	10.09	0.00		0.00		0.00
	Sub Total	186.99	186.99	0.00		78.64		284.24
	UI RGCCPP	-8.16	-8.16	0.00				0.00
	Sub Total IPPs net	**178.83**	**178.83**	**207.13**	**0.00**	**78.64**	**-1.53**	**284.24**
	Traders/IPPS							
	Long Term contracts							
31	Maithon Power Ltd (I& II)	1907.70	1846.74	285.5047		371.741	3.324342	660.57
32	DVC Mejia	718.95	696.13	107.73		154.8745	0.086054	262.6906
33	DVC RTPS	231.54	224.16	40.59303		49.15102	0.041561	89.7856
34	DBFOO Jindal	1170.69	1113.32	309.3267		132.1918	-9.89267	431.6258
35	DBFOO Jhabua	128.01	124.10	29.35293		26.10359	-3.21174	52.24479
	Sub Total	4156.89	4004.45	772.51		734.06	-9.65	1496.92
	Medium Term contrats							
36	NVVN	2132.95	2047.82					923.34
37	BALCO	692.42	663.27					268.54
	Subtotal medium term contracts	**2825.38**	**2711.08**					**1191.88**
	Short Term Contracts							0.00

No.	Source of Power (Station wise)	Quantum at exbus	Quantum at KSEB end	Capacity charges	Incentive	Variable charges	Other charges including supplementary claims	Total
38	PTC Simhapuri	390.42	381.06					222.28
39	Short term contract through M/s PTC from DVC for the month of May 2016	29.30	28.62					9.25
40	Short term contract through M/s PTC Ltd from JPL for the month of March 2017	128.83	125.70					45.37
41	Short term contract through M/s TATA from JPL for the month of March 2017	65.32	65.32					25.30
42	IEX	495.52	484.62					179.16
43	PXIL	120.00	117.31					42.24
44	DSM	740.70	740.70					137.61
45	Swap	6.91	6.68					0.21
	Sub Total Short term Contracts/exchanges/Swap/ DSM	**1977.00**	**1950.01**					**661.42**
46	Transmission charges							503.62
	Total power purchase	**19734.92**	**19050.17**					**7551.42**
Notes:	*In the case of Jindal and Jhabua other charges icludes trasmission charges and charges for transmission losses.*							
	The total charges for the month of November 2017 for Mejia Station is wrongly taken for RTPS and vice versa while preparing the true up petition and hence the difference in power purchase cost for these stations (Rs 262.69 crore against Rs 255. 55 crore. reported in petition for Mejia and Rs 89.79 crore against Rs 96.93 crore reported in petition for RTPS).							

Analysis and decision of the Commission

5.75 Based on the deliberations mentioned above, the summary of the cost of power purchase for the year 2016-17 approved is as shown below:

Table 17
Power Purchase cost approved for the year 2016-17

Particulars	Approved in suo motu ARR order		Actual as per truing up petition		Approved in truing up	
	Energy (MU)	Cost (Rs crore)	Energy (MU)	Cost (Rs crore)	Energy (MU)	Cost (Rs crore)
Central Gen. Stations	9,734.09	3,203.32	10,205.80	3,413.34	10,205.80	3,413.34
IPPs within the State	142.42	45.87	178.83	284.24	178.83	277.11
IPPs / Traders outside state	7,302.84	2,936.16	7,250.91	2,965.69	7,250.91	2,965.69
Traders / Exchanges/UI	2,399.71	959.88	1,414.63	384.52	1,414.63	384.52
Transmission charges		607.54		503.62		503.62
Total	19,579.06	7,752.77	19,050.17	7,551.41	19,050.17	7,544.28

5.76 ***The total power purchase cost approved for 2016-17 is Rs.7544.28 crore as against Rs.7551.41 crore as per the petition.*** The difference in the approved power purchase cost and the actual as per the petition is on account of the reduction of Rs.7.13 crore in the fixed charges of RGCCPP due to re-negotiation with NTPC.

O&M expenses

5.77 In this petition, KSEB Ltd has claimed the O&M expenses of SBU-D as Rs.2278.59 crore as shown below:

Table 18
Components of O&M Expenses

No	Particulars	Approved in the suo motu ARR order (Rs.crore)	As per truing up petition (Rs.crore)
1	Employee Cost	1326.62	1788.27
2	A&G Expenses		300.11
3	R&M Expenses		190.21
4	Sub total		2278.59

5.78 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 :

5.79 As per the details given in the petition, the employee cost including terminal benefits of KSEB Ltd increased from Rs.2893.70 in 2014-15 to Rs.3104.54 crore in 2015-16 and to Rs.3360.77 crore in 2016-17. The employee cost booked under SBU-D is Rs.1788.27 crore and the terminal benefits for SBU-D is Rs. 1012.16 crore.

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

5.80 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.

5.81 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."*

5.82 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 3-9-2018 furnished the following:

> *"It is humbly submitted that the Hon Tribunal was pleased to grant partial relief under employee cost as per judgment in Appeal 1 & 19 of 2013. Accordingly, in order to facilitate implementation of the Hon High Court judgment, KSEBL as per letter dated 06.08.2018 has already submitted full details of employee numbers and cost attributable to the net increased staff strength over 2009. The cost estimation is similar to the approved method in the True up order for 2015-16.*
> *At the same time KSEBL humbly submits that the employee cost as per Truing up petition may kindly be considered in view of the following submission:*
>
> **k.** *The employee cost of KSEBL includes basic salary, DA and other benefits for serving employees and pensioners, terminal benefits etc for retired employees. Employees of KSEBL are recruited through PSC and salary and other benefits including earned leave surrender etc. are provided as per the wage settlement agreement entered into with the trade unions. As per the agreement DA has to be released as and when the same was released by the State Government to its employees, pension and other benefits as per the rules in force and also as per the directions of court of law.*
> **l.** *In this context, kind attention of the Hon'ble Commission is invited to the extracts from Judgment issued by Supreme Court of India on 3rd October 2002 in the case of West Bengal Electricity Regulatory Commission vs CESC Limited that "**Therefore, during the pendency of these agreements, it was legally not possible for the Company to stop these payments. Therefore, the amounts spent towards this purpose namely, towards the employees' cost should not be treated as the amounts not properly incurred."***
> m. *It is clear from this judgment that KSEBL is not in a position to curtail employee expenses incurred under lawful agreement entered into with workmen. Through the second transfer scheme the Government has*

transferred the entire employees of the erstwhile KSEB to the rolls of the appellant and the appellant has become statutorily bound to bear the cost related to all such employees in view of Section 133 of the Electricity Act, 2003 which mandates that the terms and conditions of transfer of employees after re vesting shall not in any way be less favorable than those which would have been applicable to them if there has been no such transfer as per the transfer scheme.

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

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

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

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

Table 1 : Physical addition to major fixed assets between FY 2008-09 and FY 2016-17

Year	**220 KV Lines**	**110 KV Lines**	**66 KV Lines**	**33 KV Lines**	**11 & 22 KV Lines**
	km	**km**	**Km**	**km**	**km**
2008-09	*2641.86*	*4067.59*	*2161.91*	*1184.78*	*41440*
2016-17	*2801.89*	*4440.3*	*2208.81*	*1867.61*	*59496*
Increase	***6.06 %***	***9.16 %***	***2.17 %***	***57.63 %***	***43.57 %***
Year	***EHT Substations***	***33 KV Substations***	***Step-Up Transformers***	***Step-Down Transformers***	***Distribution Transformers***
2008-09	*218*	*89*	*2465.6 MVA*	*14631 MVA*	*46359*
2016-17	*258*	*144*	*2699.05 MVA*	*19143.4 MVA*	*75579*
% Increase	***18.35 %***	***61.80 %***	***9.47 %***	***30.84 %***	***63.03 %***

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

Table 2 : Consumer strength -Growth between 2008 and 2017			
No	***Consumer strength***	***Numbers***	***Increase***
1	*Number of consumers as on 31-03-2008*	*90.30 Lakhs*	
2	*Number of consumers as on 31-03-2017*	*119.95Lakhs*	*32.84 %*

Table 3 Energy sales- Growth from 2008 to 2017			
No	***Energy sales***	***Energy sale (MU)***	***Increase***
1	*Total energy sale as on 31-03-2008*	*12049.90*	
2	*Total energy sale as on 31-03-2017*	*20452.91*	*69.74 %*

Table 4 Fixed Assets added from 2008 to 2017			
No	***Gross Fixed Assets***	***Amount (Rs. crore)***	***Increase***
1	*Gross Fixed asset as on 31-03-2008*	*8684.55*	
2	*Gross Fixed asset as on 31-03-2017*	*17126.17*	*97.20 %*

5.83 KSEB Ltd in its letter dated 6-8-2018 furnished the details of the employee cost booked during the year 2016-17 in respect of those who are recruited after 1-4-2009. KSEB Ltd stated in their letter dated 6-8-2018 that in order to determine the salaries and allowances actually disbursed in 2016-17 to employees recruited after 1-4-2009 (10331 nos in total for March 2017), the details were extracted from the HRIS software, which works out to Rs.368.70 crore. However, the employee strength in 2017 was 33264 employees and the no.of employees exceeded from the level at the 2008-09 (27175) was 6089 nos. The balance employees (10331-6089) were replaced for the retired employees. Thus the pro-rata employee expenses including other expense attributable to 6089 employees is Rs.217.35 crore.

5.84 Regarding employee expenses, KSEB Ltd stated in the petition that the business activitiy has been continuously increasing over several decades and correspondingly the physical assets have also been increased. The number of employess for maining the asset and to provide quality supply to consumers has also increased. The increase in employees is primarily in technical areas and it is seen that more than 90% increase in number of employees are accounted for by technical employees who are essential to maintain the asset and provide quality supply.

5.85 The employee cost of KSEB Ltd includes basic pay, DA and other benefits for serving employees and pensioners, terminal benefits etc. for retired employees. The employees are recruited through PSC and salalry and other benefits including earned leave surrender etc., are provided as per wage settlement agreement entered into with the trade unions. As per the agreement DA has to be released as and when the same was released by the State Government to its employees pension and other benefits are as per the rules in force and also as per the directions of court of law. KSEB Ltd further stated citing the observation of Apex court in WBERC Vs CESC that KSEB Ltd is not in a position to curtail the employee expense incurred under lawful agreement entered into with workmen. The same has been upheld by the APTEL in the judgment dated 27-4-2016, the actual basic pay as per accounts may be seen as expense that cannot be curtained in the short run.

5.86 Thus according to KSEB Ltd, the cost attributable to increased staff strength in 2016-17 over 2009 works out to Rs.217.35 crore.

Response of Stakeholders

5.87 Regarding O&M expenses, the Association mentioned that the O&M expenses in Kerala is highest in the country and about 3 times the national average. 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. On the other hand the increase during 2004 to 2009 is normal to the tune of about 3%

5.88 The Association made a reference on the remarks of the Additional Secretary, Finance, GoK regarding employee expenses. According to the Association, the O&M expenses should be allowed as per the provisions of the Regulations. Friends of Electricity Consumers mentioned that O&M cost should be allowed as per the orders of the APTEL and also the Hon High Court of Kerala.

Provisions in the Regulations

5.89 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.

5.90 In the case of SBU-D, relevant provision of the Regulation specifying the O&M 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*
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

5.91 KSEB Ltd in their truing up petition has sought Rs.1788.27 crore towards employee expenses of SBU-D. Comparing this with the total employee expenses of KSEB Ltd, it works out to 83.57% of the total employee expenses of Rs.2139.72 crore excluding terminal benefits for KSEB Ltd.

5.92 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 2016-17. 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.

5.93 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.

5.94 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, KSEB 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

5.95 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."

5.96 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.

5.97 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".

5.98 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."

5.99 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 remain the criteria. Thus, the employee expense other than terminal benefits is taken up first in the subsequent sections.

5.100 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 increase in the manpower levels 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.

5.101 KSEB Ltd vide letter dated 6-8-2018 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 10331. KSEB Ltd has also stated that the strength of employees in 2017 was 33264 and that in 2009 was 27175. Thus net the increase in employee strength is 6089, considering the retirements. As per the details furnished by KSEB Ltd, the total amount disbursed for 2016-17 for the net increase in employees (6089 nos) from 2009 (33264-27175). The total disbursements for the increase in employees of 6089 over 2009 levels are Rs.217.35 crore.

5.102 In compliance to the orders of Hon. APTEL, employee expenses without accounting for the increase in manpower from 2008-09 level can be arrived at by deducting 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.2139.72 crore. As per the details furnished by KSEB Ltd in its letter dated 6-8-2018, the employee cost of additional employees is Rs.217.35 crore. Hence, the allowable expenses excluding terminal liabilities for KSEB Ltd is Rs.1922.37 crore (Rs.2139.72crore – Rs.217.35crore). On a pro-rata basis, the employee cost for SBU-D will be 83.57% of Rs.1922.37 crore ie., Rs.1606.72 crore as determined based on the directions of the Hon APTEL and judgment of Hon. High Court of Kerala.

Table 19

Approved employee cost for SBU-D

	SBU-D (Rs. crore)	KSEB Ltd (Rs. crore)
Net Employee costs as per petition	**1788.27**	**2139.72**
Net cost of additional employees as per the letter dated 6-8-2018		217.35
Net employee cost of SBU-D as a percentage of KSEB Ltd	83.57%	
Balance Employee cost		1922.37
Employee cost attributable to SBU-D (1922.37 crore x 83.57%)	**1606.72**	

5.103 ***The Commission hereby approves the employee cost excluding terminal liabilities for SBU-D for 2016-17 as Rs.1606.72 crore***

A&G Expenses

5.104 The next component of O&M expenditure is A&G expenses. The A&G expense claimed by KSEB Ltd for SBU-D inclusive of Electricity Duty under Section 3 of the Electricity Duty Act is Rs.300.11 crore. Of this electricity duty is Rs.115.27 crore. The details are given below:

Table 20
Split Up Details of A & G Expenses and Provisions for 2016-17

S. No.	Particulars	As per Audited accounts (Rs. crore)
1	Rent Rates & Taxes	7.34
2	Insurance	0.13
3	Telephone & Postage, etc.	2.37
4	Legal charges	1.16
5	Audit Fees	1.20
6	Consultancy charges	0.28
7	Other Professional charges	0.51
8	Conveyance	50.52
9	Vehicle Running Expenses Truck / Delivery Van	0.54
10	Vehicle Hiring Expenses Truck / Delivery Van	2.60
11	Electricity charges	7.20
12	Water charges	0.38
13	Entertainment	0.51
14	Fees & subscription	0.04
15	Printing & Stationery	8.38
16	Advertisements, exhibition publicity	0.99
17	Contribution/Donations	0.55
18	Training expenses	0.45
19	Miscellaneous Expenses	3.26
20	DSM activities	2.73
21	SRPC expenses	0.11
22	Sports and related activities	0.13
23	Freight	5.71
24	Purchase Related Advertisement Expenses	0.38
25	Bank Charges	1.07
26	Office Expenses	59.32
27	License Fee and other related fee	2.31
28	Cost of services procured	0.00
29	Outsourcing of metering and billing system	0.00
30	V-sat, Internet and related charges	0.07
31	Security arrangements	0.00
32	Books & periodicals	0.03
33	Computer Stationery	0.00
34	Others	0.27
	Others- Other Purchase related Expenses	1.71
	Others - Expenditure inconeection with distribution of LED	29.22
35	**Gross A&G Expenses**	**191.50**
36	**Ele. Duty u/s 3(I), KED Act**	**115.27**
37	Less: Expenses Capitalised	6.66
38	**Net A&G Expenses**	**300.11**

5.105 The major component booked under A&G expenses is office expenses of Rs.59.32 crore.

Response of Stakeholders

5.106 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.1296.89 crore.

Provisions in the Regulations

5.107 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

5.108 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.

5.109 The operational parameters applicable for the SBU-D for estimation of employee cost, R&M expenses and A&G expense are that of 2015-16. As per the details furnished by KSEB Ltd in the petition, the parameters are as shown below:

Table 21
Operational parameters under SBU-D for estimation of O&M expenses

Item	2015-16
No. of Consumers	1,16,68,031
No. of Distribution transformers	73,460
Circuit length of HT Lines (km)	59,476.66
Energy Sales (MU)	19,325
GFA of Distribution as on 31-3-2016 (Rs. crore)	6,607.20

5.110 The Commisison notes that KSEB Ltd has claimed Rs.300.11 crore as A&G expenses, which is inclusive of Electricity Duty of Rs.115.27 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.23.59 crore towards the cost of distribution of LED bulbs and requested the Commission to allow the same as a one time expenses. Excluding these two items, the A&G expenses as per Accounts will be Rs.161.25crore.

5.111 Based on the Regulation the allowable A&G expenses are shown below***:***

Table 22
Allowable A&G expenses for 2016-17 for SBU-D

Item	Parameters in at the end of 2015-16	Unit	Norms for A&G expenses for 2016-17	Allowable A&G expenses for 2016-17 (Rs. crore)
1	2	3	5	7= (2X5)/100
No. of Consumers	116,68,031	Rs.lakh/000 consumers	0.22	25.67
No. of Dist. transformers	73,460	Rs.lakh/Transformer	0.03	22.04
Circuit length of HT Lines (km)	59,476.66	Rs./lakh/km	0.04	23.79
Energy Sales (MU)	19,325.07	Rs./unit	0.01	19.33
Total				**90.82**

5.112 ***As per the provisions of Regulations, the Commission approves A&G expense of SBU-D as Rs.90.82 crore.***

R&M expenses

5.113 R&M expenses booked for SBU-D is Rs.190.21 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, sufficient employees for maintaining the asset and to provide quality supply, primarily in Technical areas are required. Thus, more than 90% employee strength increase are in technical areas, which is essential to maintain the asset for providing supply quality. 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.

5.114 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.

5.115 The split up details of R&M expenses for SBU-D furnished by KSEB Ltd is given below:

Table 23
Split up details of R&M expenses

Particulars	As per Audited accounts (Rs crore)
Plant & Machinery	5.19
Buildings	4.78
Civil Works	1.08
Hydraulic Works	0.11
Lines & Cable Networks	175.90
Vehicles	1.08
Furniture & Fixtures	0.36
Office Equipment	1.71
Gross R&M Expenses	**190.21**
Less: Expenses Capitalised	
Net R&M Expenses	**190.21**

5.116 KSEB Ltd has thus claimed Rs.190.21 crore as R&M Expenses

Provisions in the Regulations

5.117 The **provisions** of the Regulations regarding R&M expenses is given 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

	FY 2015-16	*FY 2016-17*	*FY 2017-18*
R&M expenses			
% of opening GFA	*3%*	*3%*	*3%*

Analysis and decision of the Commission

5.118 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.

5.119 KSEB Ltd has claimed Rs.190.21 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. As per the truing up petition, the GFA of SBU-D is Rs.6607.2 crore.

Table 30

R&M expenses allowable for SBU-D 2016-17

	Rs. crore
GFA of SBU-D as on 31-3-2016	6607.2
R&M Expenses as % of GFA	3.0%
Allowable R&M expenses	198.22

5.120 ***Thus, the Commission allows Rs.198.22 crore as R&M expenses of SBU-D***

Summary of O&M expenses

5.121 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 24

O&M expenses approved as per Regulations

	As per Petition (Rs. crore)	Approved (Rs. crore)
Employee Costs	1788.27	1606.72
R&M Expenses	190.21	198.22
A&G expenses	300.11	90.82
Total O&M Expenses	2278.59	1895.76

5.122 ***The Commission hereby approves Rs. 1895.76 crore as the total O&M expenses of SBU-D***

Terminal benefits

5.123 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.*

5.124 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 2016-17for SBU-D was Rs.1012.16 crore out of the total Rs.1221.06 crore for KSEB Ltd.

5.125 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."

5.126 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.

5.127 KSEB Ltd in their petition has claimed Rs.1221.06 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

5.128 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]*

5.129 Hence, for funding of terminal liabilities till the formation of the Master Trust KSEB Ltd and the State Government are jointly and severally responsible. 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

5.130 The Commission 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. It is a 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.

5.131 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.

5.132 KSEB Ltd in their truing up petition has claimed Rs.1221.06 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.

5.133 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.

5.134 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.1221.06 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 2016-17 as has been done in the ARR&ERC order for 2014-15, order on truing up for 2015-16, 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.406.62 crore from the State Government either as 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.

5.135 Out of the total Rs.814.40 crore allowed for funding the terminal benefits from the funds of KSEB Ltd for the year 2016-17, the apportionment of this amount is made in the same ratio as given in the petition, which amounts to Rs.1012.16 crore for SBU-D. Of this, Rs.337.09 crore is to be got reimbursed from the Government as shown below:

Table 25

Terminal liabilities approved for SBU-D for 2016-17

	As per Petition (Rs.crore)	Approved (Rs.crore)
KSEB Ltd		
Terminal benefits as per petition	1221.06	1221.06
Contribution of Government		406.66
Contribution through Truing up		814.40
SBU-D		
Share of Terminal benefits for SBU-D	1012.16	1012.16
Contribution of Government		337.09
Contribution through Truing up		675.07
Total Terminal benefits for SBU-D	**1012.16**	**1012.16**

5.136 ***As shown above, the terminal benefits of Rs.1012.16 crore is approved for SBU-D and out of this Rs.675.07 crore is allowed in the truing up and the balance is to be met from the contribution from the Government***.

Interest and financing charges

5.137 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.839.88 crore as shown below:

Table 26

Interest and financing charges for SBU-D

No	Particulars	Approved in the suo motu ARR order (Rs.crore)	As per Accounts (Rs.crore)	As per Truing up petition (Rs. crore)
1	Interest on outstanding Loans and	57.84	313.69	313.69
2	Less: Interest capitalized		48.86	48.86
3	Net interest		264.83	264.83
4	Interest on Security Deposit	120.12	177.27	163.56
5	Interest on GPF	110.44	143.45	143.45
6	Other Interest	8.41	19.10	19.10
7	Master Trust Bond Interest Provision	684.98	0.00	0.00
8	Interest on Overdraft	0.00	248.94	248.94
9	Grand Total (I+II+III+IV+V)	981.79	853.59	839.88

5.138 Each of the items is considered below:

Interest on Long term loans

5.139 The interest on long term loans claimed is based on the apportionment of loans among the three SBUs. As per the petition, the interest on long term loans for SBU-D is Rs264.83 crore. The estimation of normative loan and average rate of interest furnished by KSEB Ltd in the petition is as shown below:

Table 27

Interest charges and rate of interest claimed as per petition

Particulars	**Approved in** suo motu ARR order	**Normative**
	Rs. crore	**Rs. crore**
Cumulative repayment of Normative Loan up to previous year		1819.12
Net Normative loan – Opening		2187.29
Increase/Decrease due to ACE/de-capitalization during the Year		1221.40
Repayments of Normative Loan during the year		176.61
Net Normative loan – Closing		2608.40
Average Normative Loan		2213.77
Weighted average Rate of Interest of actual Loans		8.88
Interest on Normative loan		196.63
Actual Interest	57.84	33.72
IND AS adjustments		230.35

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

5.140 As shown above, KSEB Ltd has claimed interest charges for long term and short term loans duly incorporating the Ind AS adjustments. The average rate of interest for the loans estimated by KSEB Ltd for SBU-D was 8.88%.

5.141 However, as part of the clarifications sought by the Commission, KSEB Ltd in its letter dated 3-9-2018 stated that that two additional loans were secured by KSEB Ltd to the tune of Rs 1250 crore each from PFC and REC respectively at the fag end of the financial year 2016-17 (on 30th and 31st of March 2017) at a rate of interest of 9.08%. Hence, according to KSEB Ltd the closing balance of loans as on 31.03.2017 is heavily impacted and the average rate of interest would be worked out to be 10.90% if the impact of these loans were considered. Accordingly KSEB Ltd had furnished the following calculation for the average rate of interest

Table 28

Average rate of interest worked out by KSEB Ltd as per letter dated 3-9-2018

Item	Opening balance of loans as on 01.04.2016 (Rs. crore)	Addition (Rs. crore)	Repayments (Rs. crore)	IND AS adjustments (Rs.crore)	Closing balance as on 31.03.2017 (Rs. crore)	Interest charges (Rs. crore)	Average rate of interest (%)
LT Loans (excl 2500 crore)-A	1,853.51	2,871.77	189.03	269.66	1,766.57	209.06	**11.55**
ST Loans-B	1,900.00	2,875.00	2,887.50	-	1,887.50	192.07	**10.14**
Loans (A+B)	**3,753.51**	**5,746.77**	**3,076.53**	**269.66**	**3,654.07**	**401.13**	**10.83**
Add:Loan from PFC -1 day	-	-	-	-	1,250.00	0.31	**0.02**
Add:Loan from REC-2 days	-	-	-	-	1,250.00	0.62	**0.05**
Ind As adjustments						33.73	
Total	**3,753.51**	**5,746.77**	**3,076.53**	**269.66**	**4,904.07**	**435.48**	**10.90**

5.142 KSEB Ltd however, did not provide the SBU wise details of average interest rate while revising the rates.

Objection of stakeholders

5.143 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.196.06 crore on account of interest for CWIP of Rs.1782 crore at a rate of 11% should be disallowed from the interest on long term loans.

Provisions in the Regulations

5.144 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

5.145 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.853.59 crore and as per the petition is Rs.839.88 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. Further, the difference is also on account of claim of actual interest on security deposit claimed by KSEB Ltd.

Interest on long term loans

5.146 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 2016-17) 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 to use.

5.147 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 for 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 under construction, the same is to be treated as part of fixed assets only when the assets are put to use. Thus, all the funding requirements are considered normatively, so that the consumers are required to pay only what is to be funded.

5.148 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. KSEB Ltd in their petition has estimated the average rate of interest for the year 2016-17 for SBU-D at 8.88%. However, as part of the clarifications sought by the Commission, KSEB Ltd in its letter dated 3-9-2018 stated that that two additional loans were secured by KSEB Ltd to the tune of Rs 1250 crore each from PFC and REC respectively at the fag end of the financial year 2016-17 (on 30th and 31st of March 2017) at a rate of interest of 9.08%. Hence, according to KSEB Ltd the closing balance of loans as on 31.03.2017 is heavily impacted and the average rate of interest would be worked out to be 10.90% if the impact of these loans were considered. Accordingly KSEB Ltd had furnished the calculation for the average rate of interest as per the letter dated 3-9-2018. KSEB Ltd however, did not provide the SBU wise details of average interest rate while revising the rates.

5.149 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. However, as part of the clarifications sought by the Commission, KSEB Ltd in its letter dated 3-9-2018 stated that that two additional loans were secured by KSEB Ltd to the tune of Rs 1250 crore each from PFC and REC respectively at the fag end of the financial year 2016-17 (on 30th and 31st of March 2017) at a rate of interest of 9.08%. Hence, according to KSEB Ltd the closing balance of loans as on 31.03.2017 is heavily impacted and the average rate of interest would be worked out to be 10.90% if the impact of these loans were considered.

5.150 The Commission examined the details furnished by KSEB Ltd on the average rate of interest. It is true that KSEB Ltd has availed loans from REC and PFC, one and two days prior to the close of the financial year. The Commission also notes that while estimating the interest charges and outstanding loans, KSEB Ltd has taken into consideration the Ind AS adjustments in the loans while the adjustments in the interest charges have been excluded. Considering these anomilies in working out the weighted average rate of interest by KSEB Ltd, the Commission has estimated the average rate of interest of the actual loan portfolio as shown below:

Table 29

Details of weighted average rate of interest for 2016-17

	Opening Balance (Rs. crore)	Closing Balance (Rs. crore)	Average loan (Rs. crore)	Interest Charges (Rs. crore)	% share	Average Rate of Interest (%)	Weighted average Rate (%)
Long Term Loans	1,853.51	2,036.25	1944.88	209.06	50.5%	10.75%	5.43%
Short Term loans	1,900.00	1,887.50	1893.75	192.07	49.2%	10.14%	4.99%
Loan from PFC -1 day	0.00	1,250.00	3.42	0.31	0.1%	9.05%	0.01%
Loan from REC-2 days	0.00	1,250.00	6.85	0.62	0.2%	9.05%	0.02%
	3753.51	6423.75	3,848.90	402.06	100.0%		10.45%

5.151 The opening level of loans as per the accounts is Rs.3753.51crore and closing balance before the Ind AS adjustments is Rs.6423.75 crore. The interest charges for loans for the year 2016-17 as per the accounts excluding fair value adjustments is Rs.402.06 crore (Rs.435.79 crore- Rs.33.73 crore). Considering the loans taken at the end of the year, the weighted average rate of interest works out to be 10.45% per annum

5.152 The interest charges allowable for the year 2016-17 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.

5.153 The Commission has arrived at the normative loan as per the Regulations for the year 2016-17 as shown below:

Table 30

Normative existing loans for the year 2016-17

		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
5	Repayment equivalent to depreciation for the year	334.87
6=4-5	Normative loan as at the end of the year	1,941.30
7	Addition to loans in 2015-16	380.08
8=6+7	**Opening levels of Loan (as on 1-4-2016)**	**2,321.38**

		Rs. crore
9	Repayment for the year 2016-17 (Depreciation)	369.87
10=8-9	**Closing level of loans (31-3-2017)**	**1,951.51**
11=(8+10)/2	Average loan	2,136.45
12	Weighted Average rate of Interest	10.45%
13=11x12	Interest charges (existing normative loan)	223.26

5.154 The Commission in the truing up order for 2015-16 had arrived at, for the purpose of estimating the normative loans, the net fixed assets as on 1-4-2015 as Rs.8483.82 crore. After deducting the souces of funding such as grants and contribution and equity, normative loan as on 1-4-2015 was Rs.2276.17 crore. After deducing the normative repayment equivalent to the depreciation, the net normative loan at the end of 2015-16 was Rs.1941.30 crore. The addition to normative loan ie., net increase in fixed assets excluding grants and contribution, was Rs.380.08 crore. Thus closing level of normative loan (31-3-2016) was Rs.2321.38 crore.

5.155 The normative repayment for the year 2016-17 was equivalent to the depreciation is Rs.369.87 crore and the closing level loans is Rs.1951.51 crore. The weighted average rate of interest on the actual loan portfolio is 10.45% and the interest on existing normative loan is estimated as Rs.223.26 crore.

5.156 ***The interest charges so arrived at is apportioned based on the gross fixed assets among SBUs and accordingly for SBU-D, the interest on existing normative loan is Rs.96.05 crore.***

Table 31

Apportionment of interest on loans

	SBU-G	SBU-T	SBU-D	KSEB Ltd
GFA as on 31-3-2016 (Rs.crore)	**4,440.85**	**4,309.46**	**6,607.19**	**15,357.50**
Share of GFA (%)	28.92%	28.06%	43.02%	100.00%
Interest charges based on share of GFA (Rs.crore)	64.56	62.65	96.05	223.26

5.157 The interest charges for existing normative loans for SBU-D is Rs.96.05 crore.

Inerest charges for addition to loans

5.158 Interest charges for addition of loans is allowed based on the asset additions during the year

Provisions in the Regulation

5.159 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.

5.160 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.

5.161 The Commission examined the details furnished by KSEB Ltd. The total asset addition during the year is Rs.1768.65 crore, which is the difference between the closing value of GFA (less revalued assets) as on 31-3-2017 ie., Rs.17126.17 crore and the opening value of GFA of Rs.15357.52 crore). The asset addition furnished by KSEB Ltd of Rs.1768.65 crore in 2016-17, is a substantial amount comparing to the asset additioins made in the previous years. In 2013-14, the asset addition was Rs.798.20 crore, whereas in 2014-15 the asset addition is Rs. 1128 crore. In 2015-16, the asset addition as per the accounts was Rs.738.44 crore. As per the details, it appears that as part of the first time adoption of Ind AS accounts, KSEB Ltd had tried to clear the expenditure booked under CWIP to assets. Hence, the Commission again sought the details of assets capitalized during the year asper the provisions of the Regulations. The summary of the details furnished by KSEB Ltd is as given below:

Table 32

Details of expenditure capitalized during 2016-17

Brief Description of Project	Total Cost (CWIP) as on 01.04.16 (Rs.crore)	Cost Incurred during the year (Rs.crore)	Asset Capitalized during the year (Rs.crore)	Balance CWIP up to the end of 31.03.17 (Rs.crore)
Generation	1,112.10	176.56	450.22	838.44
Transmission	495.7	280.04	410.19	365.55
Distribution	501.36	1,122.80	908.25	715.91
Total	2,109.16	1,579.40	1,768.65	1,919.90

5.162 In this context, it is pertinent to mention that the Commission vide letter dated 23-4-2018 had directed KSEB Ltd to furnish the details of capital expenditure under generation, transmission and distribution with full details as per the provisions of Regulations during the truing up process. However, KSEB Ltd failed to furnish the details as directed by the Commission as part of the truing up petition. KSEB Ltd furnished only broad items of capitalization under each projects for generation and on a composite basis for transmission and distribution. KSEB Ltd could not provide the details of components of each project, the funding pattern including that of loans, grants and equity. The details such as sanctioned cost, actual cost of the projects, delays if any and delays beyond the control of KSEB Ltd etc., were also not provided. Further, the details regarding material cost, interest during construction, expenses such as employee cost and A&G expenses capitalized etc., for the assets were also not provided. It could not be ascertained with the available information whether the projects capitalized are complete in all respects and put into use. In the absence of the details provided by KSEB Ltd , the Commission is not in a position to examine the prudence of the capital expenditure addition made during the year and also consider the requirement of normative loans and interest thereon for assets added during the year 2016-17.

5.163 ***Under these circumstances, the Commission is of the considered view that till such time,* complete *information on the capital expenditure is furnished as per the provisions of the Regulations, the approval of addition to capital expenditure and consequently the interest amount to be considered for the year is to be deferred. The details to be furnished is essential part of the Regulation formats. As soon as the required information is furnished, the Commission may consider the same for the approval.***

5.164 Accordingly, the interest charges for normative loan for the addition to assets are deferred. Thus, the total interest charges for loans approved for the purpose of truing up is as shown below:

Table 33

Interest charges on loans for the year 2016-17

	SBU-G (Rs.crore)	SBU-T (Rs.crore)	SBU-D (Rs.crore)	KSEB Ltd (Rs.crore)
Interest on Existing loans	64.56	62.65	96.05	223.26
Interest on Addition to loans*	-	-	-	-
Total Interest charges on loans	**64.56**	**62.65**	**96.05**	**223.26**

*Deferred due to want of details

5.165 **Thus*, the interest charges for long term loans for SBU-D is Rs.96.05 crore***

Overdrafts

5.166 In their petition KSEB Ltd stated that they have availed overdraft from banks to make up the shortages in cash flow in 2016-17 at an interest cost of Rs. 248.94 crore as shown below:

Table 34

Month wise overdraft balance in 2016-17

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

5.167 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. 2406.49 crore and corresponding interest charges was Rs. 248.94 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 2016-17 was Rs 3325.13 crore and trued up revenue gap till 31.03.2014 amounted to Rs.5452.15 crore. Hence KSEB Ltd requested that the actual interest on overdraft amounting to Rs.248.94 crore may be approved in full.

Analysis and decision of the Commission

5.168 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.

5.169 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

5.170 KSEB Ltd has not claimed any interest on working capital. However, in the letter dated 3-9-2018, KSEB Ltd has furnished the interest on working capital as shown below:

Table 35

Interest on working capital furnished by KSEB Ltd for 2016-17 for SBU-D

	Rs. crore
O&M Exp for 1 month	242.2972
Mace spares @ 1% of Historical Cost	3.1
Revenue (2 months)	1837.27
Total	2082.667
Less SD	2145
Less Cost of PP for 1 month	629.27
Net Working Capital	0
Base rate as on 1-4-2016	9.35%
Interest rate on Working Capital	11.35%
Interest on Working Capital	**0**

5.171 As per the estimate of KSEB Ltd there is no interest on working capital for SBU-D.

Objections of stakeholders

5.172 Regarding interest on overdraft from the Banks, the Association pointed out that the claim of Rs.248.94 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."

5.173 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 benefirts should be disallowed

Provisions in the Regulations

5.174 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

5.175 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.

5.176 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.

5.177 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 2016-17 excluding terminal benefits	- Rs.1,895.76 crore
Inventories (less Fuel)	- Rs.284.37 crore
Receivables (revenue from sale of power)	- Rs.11,036.78 crore
Security deposits	- Rs.2,796.28 crore
Cost of power purchase	- Rs.7,544.28 crore
Base rate of SBI as on 1-4-2015	- 9.3%
Interes rate for working capital	- 11.3%

5.178 Based on the above, interest on working capital is estimated as shown below:

Table 36
Interest on working capital for SBU-D

	SBU-D (Rs. crore)
O&M expenses for one month	157.97
Cost of maintenance of spares 1% of historical cost	2.84
Receivables (Revenue for two months)	1839.46
Total	**2000.27**
Less Security deposits	2287.32
Less cost of power purchase for one month	628.69
Total Normative Working capital Requirement	**(-)915.74**

5.179 ***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

5.180 The interest on security deposit provided for 2016-17 has been Rs 177.27 crore being 7.75% of security deposits balance Rs 2287.32 crore as on 31.3.2016. Against the provision, the actual interest on Security deposit disbursed during the year 2016-17 was Rs.163.56 crore. KSEB Ltd claimed only the actual interest paid on security deposits in the petition.

Provisions in the Regulations

5.181 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

5.182 ***KSEB Ltd has stated that an amount of Rs.163.56 crore is has been disbursed to consumers as interest on security deposit in the year 2016-17. The Commission approves same for the purpose of truing up.***

e. Interest on GPF

5.183 As per the audited accounts, the actual interest paid on GPF by KSEB Ltd was Rs.143.45 crore Interest rate during the year was 8.1%. In the petition, KSEB Ltd has assigned the entire GPF under SBU-D

Objections of stakeholders

5.184 The Association citing the observation of the Commission in the truing up orders for 2013-14 stated that interest on GPF should be allowed only after ascertaining the balances and approving the interest shall be subjected tothe reconciliation of GPF balances.

Analysis and decision of the Commission

5.185 ***Regarding interest on Provident fund, the Commission allows the interest as per the accounts. The interest is at a rate of 8.1% and 8% and the amount booked is Rs.143.45crore. The Commission approves the same for the purpose of truing up for 2016-17 for SBU-D.***

Other interest charges

5.186 Other interest charges paid is inclusive of guarantee commission and bank charges. The actual expenses were Rs.19.10 crore only. Predominant portion of other charges represent interest charges for power purchase bills, which is in line with the tariff revision ordered by CERC.

Analysis and decision of the Commission

5.187 As per the petition Other interest charges paid is inclusive of guarantee commission and bank charges. Predominant portion of other charges represent interest charges on power purchase bills as per the orders fo CERC

5.188 ***The Commission approves the other interest charges of Rs.19.10 crore as per audited accounts.***

Summary of Interest and financing charges

5.189 Summary of the total interest charges allowable for SBU-D for the year 2016-17 is as shown below:

Table: 37
Interest charges allowable for SBU-D

No	Particulars	Approved in the suo motu ARR order (Rs.crore)	As per Truing up petition (Rs.crore)	Approved in Truing up (Rs. crore)
3	Interet charges on loans		264.83	96.05
4	Interest on Security Deposit	120.12	163.56	163.56
5	Interest on GPF	110.44	143.45	143.45
6	Other Interest	8.41	19.10	19.10
7	Master Trust Bond Interest Provision	684.98	-	
8	Interest on Overdraft	-	248.94	
9	Grand Total	981.79	839.88	422.16

5.190 ***As explained in the paragraphs above, the total interest and financing charges approved for SBU-D for the purpose of truing up is Rs.422.16 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

5.191 KSEB Ltd in the truing up petition has claimed total depreciation of Rs.617.51 crore for the year 2016-17. KSEB Ltd in the petition has claimed depreciation of Rs.245.51 crore for the year 2016-17 for SBU-D.

5.192 In the audited accounts KSEB Ltd has made adjustments for Ind AS transition. Further, the depreciation as per the accounts is made using the CERC rates for the entire assets without considering the of vintage of assets. This has resulted overstatement of depreciation in the accounts as against the provisions of the Regulations. Since the depreciation as per the accounts violates the provisions of the Regulations, KSEB Ltd had worked out depreciation separately for the purpose of truing up in the petition.

5.193 KSEB Ltd in the petition stated that during the course of audit, for 2016-17, detailed examination of CWIP was carried out and completed works lying under CWIP were identified. Accordingly a sum of Rs.414.82 crore (Rs.201.40 crore for 2014-15 and Rs.282.73 crore upto 2015-16) has been capitalized in line with the first time adoption of Ind AS 101. Detaied asset class wise asset addition is given below:

Table 38

Asset class wise addition on account of Ind AS adjustments

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

5.194 As shown above, KSEB Ltd as part of the Ind AS adjustments, retrospectively added assets for the year 2014-15 and 2015-16. The depreciation as per the peititon includes the depreciation for asset additions made for the year 2014-15 and 2015-16 on account of Ind AS adjustments.

5.195 In reply to the query of the Commission on the grants and contribution received from the Government for generation, KSEB Ltd has furnished that grants from MNRE, Government of India to the tune of Rs.31.23 crore was received as shown below:

Table 39

Details of grants received from MNRE, Government of India for generation projects

No	Project	Date of Receipt	Amount (Rs.crore)
1	Adyanpara SHP	31-07-2013	0.88
		01-03-2016	1.05
		30-03-2017	1.23
		TOTAL	**3.15**
2	Barapole SHP	29-12-2010	2.03
		13-08-2014	2.43
		29-09-2015	2.84
		TOTAL	**7.29**
3	Chimeney SHP	25-09-2012	0.78
		25-09-2014	0.93
		18-03-2016	1.09
		TOTAL	**2.79**
4	Poringalkkuthu	19-12-2017	**18.00**
	Total		31.23

5.196 In addition to the above, grants received from State Government for Solar power plants is as shown below:

Table 40

Grants received from State Government for Solar projects

No	Month	Amount (Rs.crore)
1	April – 2015	1.20
2	November 2015	0.30
3	March 2016	0.55
4	June – 2016	1.21
	Total	**3.26**

5.197 KSEB Ltd further stated that the amounts received towards MNRE Grants were accounted under (account code 55201) *Subsidies towards cost of capital assets from Government of India*. Amount received for Solar plant were accounted under (account code 55313) *Grant received from state Government – Solar*

Power Plant. These receipts were inadvertently disclosed under Distribution SBU in the truing up petition.

5.198 KSEB Ltd in their petition estimated the depreciation as per the provisions of the Regulations as shown below:

Table 41
Depreciation claimed by KSEB Ltd for 2016-17

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

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

Table 42
Apportionment of depreciation among SBUs

SBU	GFA as on 31.03.2016* Rs. crore	% of GFA	Depreciation (Rs. crore)
SBU G	4440.85	30.57	188.79
SBU T	4309.46	29.67	183.20
SBU D	5775.14	39.76	245.51
Total	14525.45	100	617.51

** excluding value enhancement*
*** the value of GFA furnished by KSEB Ltd in the Table (Rs.14525.45 crore) is different from value of GFAused for estimation of depreciation (Rs.15357.52 crore)*

Objections of the stakeholders

5.200 According to the Association, 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.380.40 crore as against a claim of Rs.617.51 crore for KSEB Ltd as a whole only need to be allowed as depreciation. The Friends of Electricity Consumers mentioned that depreciation claimed is as per the Regulations and depreciation should be allowed considering the asset addition in 2014-15 and 2015-16

Provisions on the Regulations

5.201 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.

5.202 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

5.203 The Commission has examined the claims of KSEB Ltd and objections of stakeholders. KSEB Ltd has claimed Rs.617.50 crore for the year 2016-17 as against Rs.491.23 crore for 2015-16. As mentioned, KSEB Ltd has used the depreciation rates as per CERC norms for the entire value of assets without considering the vintage of assets

5.204 In contrast to the previous years' accounts, it appears that KSEB Ltd has accounted depreciation in the accounts using the higher rates applicable to the first 12 years of commissioning of assets, for the entire assets thereby overstating the depreciation. This was done as part of the restatement of accounts for Ind AS compliance. The depreciation as per the books of accounts for the year 2015-16 was Rs.491.23 crore, where as the depreciation for the year 2016-17 as per the accounts is Rs.718.88 crore showing an increase of Rs.227.65 crore. The asset addition for the year 2015-16 including the Ind AS adjustments was only Rs.1021.16 crore (Rs.738.43 crore + Rs.282.73 crore for Ind As adjustments) showing that the depreciation booked in 2016-17 is higher than the rates notified. By doing so, KSEB Ltd has violated provisions of the Regulations for accounting depreciation and also not properly accounted depreciation for the assets older than 12 years.

5.205 The Commission notes that as per the provisions of the Electricity Act 2003 and the Tariff Policy, the depreciation rates specified by the Commission shall be used for the purpose of tariff determination as well as for accounting purposes. There is a specific provision applicable to the companies engaged in the generation, transmission and distribution of electricity to follow the provisions of the Electricity Act. Accordingly, for the purpose of depreciation, KSEB Ltd should have used the provisison of the Regulations for accounting depreciation. The Commission views such lapses seriously.

5.206 Since the depreciation as per the accounts is in violation of the provisions of the Regulations, KSEB Ltd has devised a methodology for estimating the depreciation in the petition. In both the versions ie., in the accounts as well as in the petition, the depreciation arrived at is not as per the provisions of the Regulations and cannot be used for the purpose of truing up.

5.207 In the absence of correct depreciation for the assets in line with the provisions of the Regulations, the Commission has no other alternative, but to resort to estimating the depreciation as per the provisiosn of the Regulations. Hence, the Commisison has decided to arrive at the depreciation based the provisions of Regulations for the purpose of truingup. The Commisison in the truing up of Accounts for the year 2015-16, have allowed the depreciation as per the provisison of the Regulations by removing the depreciation on the assets created out of consuer contribution and grants from the depreciation booked in the accounts. The depreciation was also not allowed for revalued assets as per the provisions of Regulations.

5.208 The Commisison thus, allowed depreciation of Rs.334.87 crore for the year 2015-16. In the absence of depreciation as per the provisions of the Regulations for the year 2016-17, the Commission is of the view that for the purpose of truing up, depreciation allowed for 2015-16 along with depreciation for the addition of assets for the year 2015-16 be the depreciation for the year 2016-17. This is done since the depreciation is accouted on a straight line method. The Commission is also aware that while using such methodology, the depreciation will be overestimated since there is always a portion of assets which complete 12 years and the depreciation for such assets will be spread out for the balance useful periods.

5.209 *In this context it is also pertinent to mention that the Commission considered the asset additioin of Rs.1021.16 crore for the year 2015-16 for the purpose of depreciation, which is inclusive of the asset addition of Rs.282.73 crore made as part of the adjustments on account of Ind AS adoption. The Commission has excluded this portion of addition to assets while approving the interest and financing charges for want of the proper details furnished by KSEB Ltd. Thus, while approving the interest charges subsequently, on submission of the details,* *revision if any on the addition to assets, the corresponding adjustment if any needed in depreciation will also be carried out.*

5.210 Accordingly, the depreciation allowable for the year 2016-17 is worked out as shown below:

Table 43

Depreciation for the year 2016-17 (Rs. crore)

		SBU-G	SBU-T	SBU-D	KSEB Ltd
1	**Depreciation allowed in 2015-16**	**122.05**	**132.84**	**79.98**	**334.87**
2	Asset Addition 2015-16	34.79	212.24	491.40	738.43
3	Ind AS addition	13.32	81.26	188.15	282.73
4=2+3	**Total Asset Addition in 2015-16**	**48.11**	**293.50**	**679.55**	**1,021.16**
5	Less Contribution & Grants 2015-16		12.02	346.33	358.35
6=4-5	*Balance value of assets added*	*48.11*	*281.48*	*333.22*	*662.81*
7=6x5.28%	Depreciation for assets added in 2015-16 (@ 5.28%)	2.54	14.87	17.59	35.00
8=1+7	**Depreciation for 2016-17**	**124.59**	**147.71**	**97.57**	**369.87**

5.211 The depreciation allowed for the year 2015-16 was Rs.334.87 crore for KSEB Ltd as a whole and Rs.79.98 crore for SBU-D. The asset addition for the year 2015-16 was Rs.1021.16 crore for the KSEB Ltd as a whole including the asset addition on account of Ind AS adjustments. The total value of grants and contribution for the year 2015-16 was Rs.358.35 crore for KSEB Ltd as a whole. The grants and contribution for SBU-D was Rs.346.33 crore. Thus the net addition of assets eligible for depreciation is Rs.662.81 crore for KSEB Ltd as a whole. The depreciation for the addition of assets at an average rate of 5.28% is Rs.35 crore. The same is allocated to SBUs based on the addition of assets to assets and for SBU-D is Rs.17.59 crore. Thus the total depreciation for KSEB Ltd as whole for the year was Rs.369.87 crore and that of SBU-D is Rs.97.57 crore.

Table 44

Depreciation allowable for 2016-17

	Approved in suo motu ARR order	As per Truing up petition	Approved in Truing up
	Rs. crore	Rs. crore	Rs. crore
SBU-D	58.12	245.51	97.57

Return on Equity

5.212 KSEB Ltd in their petition has claimed return on equity at the rate of 14% fo amounting to Rs.68.64 crore According to KSEB Ltd RoE was apportioined based on the methodology adopted by the Commission in the Order dated 17-4-2017.

Objections of the stakeholders

5.213 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

5.214 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.*

5.215 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

5.216 The Associaiton has pointed out that RoE should be allowed only on the reduced equity capital as per the Orders of APTEL In this regard, as in the case of previous truing up order, 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."*

5.217 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 applied is not maintainable.

5.218 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 2016-17, the Commission accepted the figures given in the audited accounts for consistency. ***Accordingly, the RoE allowable for an equity of Rs.1028.88 crore in SBU-D for the year 2016-17 is Rs.144.04 crore***

Other expenses:

5.219 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.

5.220 The Other debits as per accounts for KSEB Ltd as a whole is Rs.(-)-90.39 crore and as per the petition is Rs.(-) 61.35 crore. For SBU-D other expenses have been Rs.91.21 crore. During the year income amounting to Rs.121.58 crore was booked under prior period transactions. The prior period expenses claimed is for the adjustment of pay revision arrears. The details are given below:

Table 45

SBU wise Priod period expenses

Particulars	Prior period expenses (Rs. crore)	Prior period income (Rs. crore)	Total (Rs. crore)
SBU G	41.76	0.00	41.76
SBU T	74.83	0.00	74.83
SBU D	0.00	121.58	-121.58
Total	**116.59**	**121.58**	**-4.99**

5.221 Further as per Ind AS Rs.30.98 crore has been booked towards changes in FV and its adjustments. Hence, the net income under the head was Rs.61.35 crore

Table 46

Fairvalue adjustments of KSEB Ltd

Debit	Credit	Rs. CR	Description
FVA A/c	Grant A/c	(10.08)	Fair value of grant is higher than the carrying amount, hence the difference would be debited in the FVA A/c
Interest A/c	FVA A/C	33.35	Fair value amount is higher than the actual interest rate, so the difference

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

5.222 Followiing table shows the other debits claimed by KSEB Ltd.

Table 47

Other Debits

Particulars	**Actual as per accounts (Rs.crore)**
Research and Development Expenses	0.20
Provision for Bad and Doubtful debts	8.54
Miscellaneous Losses and write-offs	15.55
Loss on account of flood and cyclone	0.02
Material cost variance	64.32
Total	**88.63**

5.223 The Commission has sought the details of provisions made for the bad and doubtful debts (Rs.8.54 crore). KSEB Ltd in the letter dated 3-9-2018 has furnished the details as shown below:

Table 48

Details of withdrawal of credits of KSEB Ltd for the year 2016-17.

No	**Name of the consumer**	**Category**	**Order No. & Date**	**Amount (Rs. crore)**
1	COCHIN FISHERIES HARBOUR	HT IV (COML)	Order No.SOR/AMU-HTB-20/1439/2016-17/21.02.2017 OF SO(R)	0.00
2	COCHIN FISHERIES HARBOUR	HT IV (COML)	Proceedings No.SOR/AMU/HTB-24/3599/2016/15.6.2016 of SO (R)	4.08
3	CRYSTAL BISCUIT INDIA PVT LTD	HT I (A) (INDL)	ORDER No.SOR/AMU/HTB-7/751/2016-17/110/26.11.2016 of SOR	0.23
4	DELHI METRO RAIL (DMRC) KOCHI	HT IV (COML)	Order No. SOR /HTB -26/7597/2016-17 dated 15.11.2016 of SO (R)	0.06
5	GOVT. ITI MALAMPUZHA	HT II (A) (GEN)	Order No. SOR/AMU/24/2405/2017/2.2.2017 of SO(R)	0.01
6	HOTEL WHITE LINES	HT IV (COML)	Order No. SOR/AMU/HTB-16/1631/2016-17/12.01.2017 of SOR	0.03
7	HOTEL WHITE LINES	HT IV (COML)	Order No. SOR/AMU/HTB-18/1812/2016-17/39/2.12.2016 of SOR	0.15
8	HYRANGE WOOD TREATS (P) LTD	HT I (A) (INDL)	Order No. SOR/AMU/HTb/31/3429/2016/3.11.2016 of S O (R)	0.01
9	KALYAN SILKS, PALAKKAD	HT IV (COML)	Order No. SOR/HTB-28/4628/HC Case/2016-17/18.10.2016 of S O R	0.02
10	KERALA CO-OP MILK M FED.,KANNUR	HT I (A) (INDL)	Order No.AMU/HTB-33/17/1546/2016/11.07.2016 of SO(R)	0.81
11	KINESCO POWER (KPUPL)	Licensee	ORDER No.SOR/AMU(8)/KPUPL/2016-17/3.9.2016 of SO(R)	0.87
12	MALAYALA MANORAMA,TVPM	HT I (A) (INDL)	Order no. SOR/AMU/HTB/15/1531/2016-17/5.10.2016 of SOR	0.03
13	PARAGON STEEL (P) LTD	HT I (A) (INDL)	ORDER NO. SOR/AMU/HTB/19/3051/2016-17/7.7.2016 of SOR	0.08
14	PONMUDI RUBBERS (P) LTD	HT I (A) (INDL)	Order No.SOR/AMU/HTB-1/156/2016-17/3.2.2017 of SO (R)	0.00
15	POPULAR CARBIDES	HT I (A) (INDL)	ORDER No. SOR/AMU/HTB/19/3053/6226/2016-17/8.07.2016 of	0.03

No	Name of the consumer	Category	Order No. & Date	Amount (Rs. crore)
			SO(R)	
16	RANI FOOD PRODUCTS	HT I (A) (INDL)	Order No.SOR/AMU/HTB-20/1634/2016-17/17.01.2017 of SO (R)	0.03
17	RANI FOOD PRODUCTS	HT I (A) (INDL)	Order No.SOR/AMU/HTB-26/2656/2016-17/21.12.2016 of SO (R)	0.00
18	RANI FOOD PRODUCTS	HT I (A) (INDL)	Order No.SOR/AMU/HTB-29/2929/2016-17/4.01.2016 of SO (R)	0.01
19	RANI FOOD PRODUCTS	HT I (A) (INDL)	Order No.SOR/AMU/HTB-32/5070/2016-17/46/5.1.2017 of SO (R)	0.01
20	THE MIDLAND RUBBER&CO.LTD	HT I (A) (INDL)	Order No.SOR/AMU/HTB-18/1038/2016-17/02/27.02.2016 of SO (R)	0.57
21	VANCHINAD FORGINGS (P) LTD	HT I (A) (INDL)	Order No. SOR/AMU/HTB-25/3280/2016-17/29.6.2016 of SO(R)	0.04
22	VITAMIN A PLANT, KSDP,ALAPUZHA	HT I (A) (INDL)	B.O.(FTD)No:3108/2016/SOR/AMU/KSDP/13/1332/2016-17/1.11.2016	0.38
23	P Augustine (AEE , Rtd.) Pers liability	ED/EKM	RC/General/2016-17/1/17-10-2016	0.02
24	NASEER. A (Ex- Employee)	ED/KZTM	Deceased Ex-employee	0.02
25	AYYAPPAN. K (Ex- Employee)	ED/KZTM	Deceased Ex-employee	0.01
26	Old balance of Licensees		Written off, details not available as part of Ind As	1.03
	TOTAL			**8.54**

5.224 From the above, it is clear that though KSEB Ltd in the petition has claimed Rs.8.54 crore under provision for bad debts, as per the details furnished, the amount pertains to the actual write off made against the consumer accounts. KSEB Ltd has not furnished the veracity of the above write off in the details furnished.

5.225 Further to the above, the split up details of other debits furnished by KSEB Ltd as per the letter dated 3-9-2018 is as shown below:

Table 49

Details of other debits claimed by KSEB Ltd for 2016-17

NO	PARTICULARS	Spilt-up	AMOUNT (Rs. crore)
1	Material Cost Variance		64.32
2	Research and Development Expenses		0.20
3	Bad and Doubtful Debts Written off / Provided for		8.54
4	Miscellaneous Losses and Write Offs:		
	Exp. on Survey/Feasi. Studies of Silentvally project written off	3.30	
	Old balance of deposit with customs authorities written off	0.69	
	Old balance in Loans advancces of Cheemeny project written off	0.19	
	Exp. on Survey/Feasi. Studies of different projects abandoned written off	7.63	
	Excess amount paid towards EMS Housing scheme written off	0.33	
	Compensation For Injuries, Death & Damage-Staff	0.31	
	Compensation For Injuries, Death & Damage-Outsider	3.11	
	Loss On Sale of Stores	0.00	**15.55**
5	Loss on account of flood cyclone etc		0.02
6	Operating Expenses of Previous Years – Repairs and Maintenance		0.12
7	Interest on Other Financial Charges in Previous Years		0.18

8	**Other charges relating to previous years:**		
	Administrative Expenses	1.42	
	Material Related Expenses	1.38	
	Other Charges Relating To Previous Years	18.05	**20.86**
9	Other Excess Provision in Prior Periods		(-)0.15
10	Other Income relating to Prior Periods		(-)26.00
	Total		**83.64**

5.226 As shown above, KSEB Ltd has made further write off to the tune of Rs.15.55 crore under miscellaneous losses and write off and also claimed loss on account of floods etc., It is also worth pointing out that the losses write off against the closed projects are included under the capital expenditure as well as the same has been written off under other debits.

Analysis and decision of the Commission

5.227 KSEB Ltd booked Rs.8.54 crore under bad debts written off and the miscellaneous write off, but no details were given. The relevant provision under the Regulations 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*

5.228 The Commission has analysed the details furnished by KSEB Ltd regarding the other expenses (Rs.83.64 crore). The other expenses include other debits and prior period losses and write off. The Other debits was Rs.88.64 crore under other expenses whereas net prior period income is Rs.4.99 crore resulting in Rs.83.64 crore. The details as per the accounts is as shown below:

Table 50

Details of Other expenses for 2016-17

	Rs. crore	
Mateiral cost variance		64.32
Research and Development expenses		0.20
Bad and doubtful debts written off/provide for		8.54
Miscellaneous Losses and write offs		
Exp. on Survey/Feasi. Studies of Silentvally project written off	3.30	
Old balance of deposit with customs authorities written off	0.69	
Old balance in Loans advancces of Cheemeny project written off	0.19	

Exp. on Survey/Feasi. Studies of different projects abandoned written off	7.63	
Excess amount paid towards EMS Housing scheme written off	0.33	
Compensation For Injuries, Death & Damage-Staff	0.31	
Compensation For Injuries, Death & Damage-Outsider	3.11	
Total miscellaneous losses & write offs		15.55
Loss on account of flood cyclone etc		0.02
Total		**88.63**
Prior period Credits /Charges		
Other excess provision in prior periods	0.15	
Other income relating to prior periods	26.00	
Total Income relating to prior periods	**26.15**	
Operating expenses of previous years	0.12	
Interest and other financial charges in previous years	0.18	
Other charges		
Administrative Expenses	1.42	
Material Related Expenses	1.38	
Other Charges Relating To Previous Years	18.06	
Total expenses relating to previous periods	**21.16**	
Net prior period creds/Charges		(-)4.99
Total Other expenses		**83.64**

5.229 Regarding material cost variance, the Commission notes that the amount is relating to the adjustment for the difference in issue price and the standard price of materials used. In this context, it is to be noted that the Commission is not in a position to ascertain the prudence of material cost variance booked under the head owing to two reasons: The first one is whether the cost relating to items for capital expenditure is booked under material cost variance ie., whether or not the difference in cost arising out of difference in issue price and actual price of material used creating capital assets, is accounted part of material cost variance. Such items should be made as part of the capital expenditure either as additional capitalization or other adjustments and the same is not fair to included under P&L account. The second issue is whether the cost difference is with respect to specific items relating to specific consumer or a category of consumers. In such cases also the same is to be recovered from such identifiable beneficiaries/consumers and not to be made part of overall expenditure so as to subsidise the such consumers.

5.230 ***In the absence of details furnished by the KSEB Ltd, the Commission directs that in future, while truing up, such details as mentiond above should be furnished as part of the truing up petition In the absence of such information the Commission shall be constrained to disallow the***

entire expenditure disallowed. With the above direction, material cost variance of Rs.64.32 crore booked for the year 2016-17 is allowed as a one time measure.

5.231 Next item is the provision for bad and doubtful debts of Rs.8.54 crore shown in the truing up petition under 'Other debits'. However, in the details furnished as part of the clarification vide letter dated 3-9-2018, the details show that the same is on account of withdrawal of credits from revenue account relating to 26 consumers including licensees under various consumer categories. Since in the balance sheet, the provision for bad and doubtful dues as on 31-3-2016 and as on 31-3-2017 is the same amount ie Rs.789.31 crore it is clear that the write off/withdrawal is not adjusted against the provisions already created. ***The Commisison is of the view that if a provision is already allowed by it the same has to be adjusted if actual write off is made. Hence, the amount of Rs.8.54 crore booked under with drawal of credit is not allowed.***

5.232 Next item is relalting to 'Other charges relating to prior periods'. KSEB Ltd in the letter dated 3-9-2018 has furnished that an amount of Rs.0.12 crore pertains to R&M expenses, Rs.0.18 crore is relating to interest and financing charges and Rs.1.42 crore is relating to Administrative expenses. Since these items are allowed normatively as per the provisions of the Regulations, the same relating to previous years cannot be claimed as an expense in the truing up.

5.233 No adjustment is made under Other income relating to previous years (Rs.26.00 crore) and Other charges relating to previous years (Rs.18.05 crore) for want of details. KSEB Ltd has already adjusted the amounts under fair value adjustments booked under this head and hence no additional adjustments are made under this head also. Hence, the total deductions allowed under other expenses is as shown below:

Table 51

Deductions under Other expenses

Deductions under Other expenses	Rs. crore
Bad and doubtful debts written off/provide for (withdrawl of credits)	8.54
Operating expenses of previous years – R&M expenses	0.12
Interest and other financial charges in previous years	0.18
Administrative Expenses	1.42
Total Deductions	**10.26**

5.234 The Commission has approved the other expenses booked under SBU-G and SBU-T as per the petition. Hence the above adjustments is entirely made under SBU-D. As per the petition, the Other expenses booked under SBU-D is

Rs.(-)61.35 crore. Considering the deductions, the other expenses approved will be Rs.(-)71.61 crore.

5.235 ***Considering the above, other expense of Rs. (-)71.61 crore is approved for the year 2016-17***

Carrying cost for past revenue gaps

5.236 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 52

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**	

5.237 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. 248.94 crore.

5.238 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.

5.239 KSEB Ltd in the petition, had requested for approval of interest on overdrafts.

Analysis and decision of the Commission

5.240 In the petition, KSEB Ltd has raised claim on the interest on overdrafts on the reason that overdrafts were availed mainly to fund revenue gaps on account of increase in power purchase cost. 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.

5.241 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. 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.

5.242 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".*

5.243 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.

5.244 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 53

Approved Revenue Gap over the years

Year	Net Gap as per true up (Rs crore)	Remarks
Revenue gap approved after truing	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	1,386.97	True up order for 2011-12 dated 16.03.2017.
Revenue gap after Truing up for	3,132.97	True up order for 2012-13 dated 0.03.2017.
Revenue gap after Truing up for	195.50	True up order for 2013-14 dated 20.06.2017
Reveneu gap /Surplus for 2014-15		True up order not issued yet due to HonSupreme Court direction
Revenue gap for 2015-16	202.97	True up order for 2015-16 dated 21-8-2018
Total Approved Revenue gap till 31-3-2014	**5655.12**	

5.245 Thus, the accumulated revenue gap at the end of 2013-14 is Rs.5452.15 crore and including the revenue gap approved for 2015-16 is Rs5655.12 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.

5.246 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 31-3-2016, Rs.2029.93 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

5.247 Carrying cost is to be allowed considering the cost of funds actually incurred by the entity for funding the revenue gap. The average rate of interest for the loans for the year 2016-**17** is 10.45%. Accordingly the carrying cost for the year 2015-16 is estimated as shown below:

Table 54

Carrying cost for the accumulated revenue gap

Carrying cost	Rs. crore
Accumulated Revenue gap 2013-14	5,452.15
Approved revenue gap 2015-16	202.97
Total Revenue gap	**5,655.12**
Average GPF Balance	1755.73
Balance revenue gap to be funded	3,899.39
Rate of interest	10.45%
Carrying cost	**407.49**

5.248 As seen in Table above, while revenue gap ending 31-3-2016 as per the truing up Orders was Rs.5655.12 crore, the average GPF available for 2016-17 was Rs.1755.73 crore. Thus, the net revenue gap to be funded by utilizing outside borrowing for this period was Rs.3899.39 crore for which carrying cost of Rs.407.49 crore is allowed at the weighted average interest rate of 10.45%.

5.249 ***The weighted average interest or the carrying cost is 10.45%. Thus the amount of carrying cost approved for the net accumulated revenue gap is Rs.407.49 crore.***

Norms for operation of SBU-D

5.250 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.

5.251 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 55

Base load and peak availability for the year 2016-17

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

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

5.252 As shown above, the gross availability is more than 100% in all the months in the year 2016-**17**. 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

5.253 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.646.26 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.763.05 crore.

(c) Cost of power purchase

The approved cost of power purchase is Rs.7544.28 crore.

(d) Employee cost

Thee approved level of employee cost excluding terminal benefits for SBU-D is Rs.1606.72 crore

(e) R&M Expenses

The approved level of R&M expenses for SBU-D is Rs.198.22 crore

(f) A&G Expenses

The approved level of A&G expenses for SBU-D is Rs.90.82 crore

(g) Terminal benefits

The approved level of terminal benefits for SBU-D is Rs.675.07 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.422.16 crore

(i) Carrying cost for approved revenue gap

The carrying cost for approved revenue gap for SBU-D is Rs.407.49 crore

(j) Depreciation :

The approved level of depreciation for SBU-D is Rs.97.57 crore

(k) Return on equity:

The approved level of RoE for SBU-D is Rs.144.04 crore

(l) Other expenses

The approved level of Other expenses for SBU-D is Rs. (-)71.61 crore

5.254 Thus, the total annual revenue requirements approved for the year 2016-17 for SBU-D is as shown below:

Table : 56

Aggregate Revenue Requirements approved for SBU-D

	SBU-D 2016-17		
Particulars	Approved in suo motu ARR order (Rs. crore)	As per truing up petition (Rs. crore)	Approved in the truing up (Rs. crore)
Revenue from sale of power	10,900.72	11,036.78	11,036.78
Non-Tariff income	441.00	479.82	456.23
Total Revenue	**11,341.72**	**11,516.60**	**11,493.01**
Cost of Generation	672.61	695.23	646.26
Cost of intra state trnamission	881.30	991.11	763.05
Power Purchase	7,752.76	7,551.41	7,544.28
Employee expense	1,038.24	1,788.27	1,606.72
R&M expenses	195.44	190.21	198.22
A&G expenses	92.94	300.11	90.82
Total O&M expenses	1,326.62	2,278.59	1,895.76
Terminal liabilities	684.98	1,012.16	675.07

Interest and financing charges	296.81	839.88	422.16
Carrying cost on Accumulated Revenue gap		-	407.49
Depreciation	58.12	245.51	97.57
RoE	68.64	68.64	144.04
Other expenses		(-)61.35	(-)71.61
Gross Expenses	**11,741.84**	**13,621.18**	**12,524.07**
Revenue gap	400.12	2,104.58	1,031.06

5.255 ***As shown above, the total revenue gap after truing up is Rs.1031.06 crore as against Rs.2104.59 crore as per the petition for truing up of accounts for 2016-17***

CHAPTER - 6
CONSOLIDATED TRUING UP ACCOUNTS OF KSEB LTD

Introduction

6.1 This chapter presents the consolidated details of the truing up for 2016-17 of KSEB Ltd. A comparison of the ARR&ERC approved in the suo motu order dated 17-4-2017, 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 2016-17

Particulars	Approved in the suo motu ARR Order (Rs. crore)	Actual as per accounts (Rs. crore)	As per Trued up petition (Rs. crore)
Revenue from sale of power	10,900.72	11,218.83	11,036.77
Non-Tariff income	441.00	400.78	537.51
Total Revenue	11,341.72	11,619.61	11,574.28
Generation Of Power	-	23.45	23.45
Purchase of power	7,752.76	7,393.32	7,551.41
Interest & Finance Charges	1,488.27	959.92	946.21
Depreciation	414.80	718.88	617.50
Employee Cost (excluding terminal benefits)	1,596.15	2,139.72	2,139.72
Repair & Maintenance		265.12	265.12
Administration & General Expenses		374.79	374.79
Other Expenses	-	17.98	49.75
Terminal benefits	-	1,221.06	1,221.06
Net Expenditure (A)	**11,251.98**	**13,114.24**	**13,189.01**
Statutory Surplus/ Roe (B)	489.86	-	489.86
ARR (C) = (A) + (B)	**11,741.84**	**13,114.24**	**13,678.87**
Revenue Gap (C-D)	**400.12**	**1,494.63**	**2,104.59**

6.2 The revenue gap approved by the Commission in the suo motu ARR order dated 17-4-2017 for 2016-17 was Rs.400.12 crore.The revenue gap as per the Petition for truing up of accounts for the year 2016-17 is Rs 2104.59 crore and that of the audited accounts is Rs.1494.63 crore. The difference between the accounts and the petition 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 2016-17 as per truing up petition

	SBU-G	SBU-T	SBU-D	KSEB Ltd
Particulars	Rs crore	Rs crore	Rs crore	Rs crore
Revenue from sale of power	695.23	991.11	11,036.77	11,036.77
Non-Tariff income	22.23	35.46	479.82	537.51
Total Revenue	**717.46**	**1,026.57**	**11,516.59**	**11,574.28**
Cost of Generation			695.23	
Cost of intra state trnamission			991.11	
Fuel cost	23.45			23.45
Power Purchase			7,551.41	7,551.41
Employee expense	91.16	260.29	1,788.27	2,139.72
R&M expenses	27.70	47.21	190.21	265.12
A&G expenses	9.69	64.99	300.11	374.79
O&M for new Stations				
Total O&M expenses	**128.55**	**372.49**	**2,278.59**	**2,779.63**
Terminal liabilities	81.83	127.07	1,012.16	1,221.06
Interest and financing charges	50.05	56.28	839.88	946.21
Depreciation	188.79	183.20	245.51	617.50
RoE	203.63	217.59	68.64	489.86
Other expenses	41.16	69.94	(-)61.35	49.75
Gross Expenses	**717.46**	**1,026.57**	**13,621.18**	**13,678.87**
Revenue gap	-	-	2,104.59	2,104.59

Revenue from operations

Tariff Income

6.3 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 truing up petition (Rs. crore)	Approved for truing up (Rs. crore)
SBU-G	695.23	646.26
SBU-T	991.11	763.05
SBU-D	11036.78	11036.78
KSEB Ltd	11036.78	11036.78

6.4 *After* examining *the details furnished by KSEB Ltd, the Commission approves the revenue from sale of power of KSEB Ltd as Rs.11036.78 crore for the year 2016-17*

Non Tariff income

6.5 As per the details furnished in the petition, consolidated non-tariff income for the year is Rs.537.51 crore as per the petition. After considering the details, the Commission has approved the SBU wise non-Tariff income as shown below:

Table 4
Non Tariff income approved for 2016-17

	SBU-G (Rs.crore)	SBU-T (Rs.crore)	SBU-D (Rs.crore)	Total (Rs.crore)
Total Non Tariff Income as per petition	22.23	35.46	525.15	582.84
Less write back of Depreciation			45.33	45.33
Less Expenses towards LED bulbs distribution			23.59	23.59
Non-Tariff income approved	**22.23**	**35.46**	**456.23**	**513.92**

Total Revenue

6.6 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 5
SBU wise Total Revenue

Particulars	As per petition (Rs. crore)	Approved in Truing up (Rs. crore)
SBU-G	717.46	668.49
SBU-T	1026.57	798.51
SBU-D	11516.60	11493.01
KSEB Ltd	11574.29	11550.70

6.7 The consolidated income of KSEB Ltd as per petition is Rs.11574.29 crore including non-tariff income. The Commission has approved the revenue after adjusting Rs.23.59 crore towards the expenses towards LED distribution and Rs.45.33 crore booked as miscellaneious income on account of write back of depreciation.

Expenses of KSEB Ltd

6.8 As per the petition, KSEB Ltd has sought expenses under various head as shown below:

Table 6
Expenses of KSEB Ltd

Particulars	**Approved in** suo motu ARR order (Rs.crore)	**Actual as per accounts (Rs. crore)**	**As per Truing up petition (Rs. crore)**
Generation Of Power	-	23.45	23.45
Purchase of power	7,752.76	7,393.32	7,551.41
Interest & Finance Charges	1,488.27	959.92	946.21
Depreciation	414.80	718.88	617.50
Employee Cost (excluding terminal benefits)	1,596.15	2,139.72	2,139.72
Repair & Maintenance		265.12	265.12
Administration & General Expenses		374.79	374.79
Other Expenses	-	17.98	49.75
Terminal benefits	-	1,221.06	1,221.06
Net Expenditure (A)	**11,251.98**	**13,114.24**	**13,189.01**
Statutory Surplus/ Roe (B)	489.86	-	489.86
ARR (C) = (A) + (B)	**11,741.84**	**13,114.24**	**13,678.87**

Generation of Power

6.9 KSEB Ltd in their petition sought Rs. 23.45 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.23.45 crore as per the accounts.

Cost of Generation of Power or Transfer cost of SBU-G

6.10 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.646.26 crore as against Rs.695.23crore 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

6.11 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.763.05 crore as against Rs.991.11 crore sought by KSEB Ltd. Details in this regard are shown in Chapter 3 of this Order.

Cost of purchase of power

6.12 The cost of power purchase including intra-state transmission charges as per the petition is Rs.7551.41crore which include the Ind AS adjustments to the tune of Rs158 crore. Of this, the inter-state transmission charges paid to PGCIL is Rs.503.62 crore. As mentioned in Chapter 5, the Commission after examining the details has approved the cost of power purchase at Rs.7544.28 crore for the year 2016-17.

6.13 The summary of power purchase for the year 2016-17 is as shown below:

Table 7
Power Purchase for the year 2016-17

Particulars	Approved in the suo motu ARR order		As per petition		Approved in truing up	
	Energy (MU)	Cost (Rs crore)	Energy (MU)	Cost (Rs crore)	Energy (MU)	Cost (Rs crore)
Central Gen. Stations	9,734.09	3,203.32	10,205.80	3,413.34	10,205.80	3,413.34
IPPs within the State	142.42	45.87	178.83	284.24	178.83	277.11
IPPs / Traders outside state	7,302.84	2,936.16	7,250.91	2,965.69	7,250.91	2,965.69
Traders / Exchanges/UI	2,399.71	959.88	1,414.63	384.52	1,414.63	384.52
Transmission charges		607.54		503.62		503.62
Total	19,579.06	7,752.77	19,050.17	7,551.41	19,050.17	7,544.28

6.14 ***The total power purchase cost approved for 2016-17 is Rs.7544.28 crore as against Rs.7551.41 crore as per the petition.*** The difference in the approved power purchase cost and the actual as per the petition is on account of the reduction of Rs.7.13 crore in the fixed charges of RGCCPP due to re-negotiation with NTPC.

O&M Expenses

6.15 As per the petition, the O&M expenses claimed by KSEB Ltd is Rs.2779.63 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 8
O&M expenses claimed for 2016-17

Particulars	Approved in the suo motu ARR order (Rs crore)	As per Truing up Petition (Rs. crore)
Employee Cost		**2139.72**
Repair & Maintenance		265.12
Administration & General Expenses		374.79
Total O&M Expenses	**1596.15**	**2779.63**

Employee expenses

6.16 The total employee cost claimed by KSEB Ltd in this petition is Rs.2139.72 crore, which excluding terminal benefits of Rs.1221.06 crore. The employee cost including terminal benefits is Rs.3360.78crore as per accounts.

6.17 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.1922.37 crore (Rs.2139.72 crore – Rs.217.35 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 9
SBU wise Employee cost approved

	SBU-G (Rs. crore)	SBU-T (Rs. crore)	SBU-D (Rs. crore)	KSEB Ltd (Rs. crore)
Net Employee costs	91.16	260.29	1788.27	2,139.72
Net employee cost as a percentage	4.26%	12.16%	83.57%	100%
Less Cost of additional employees as per the Order of APTEL furnished by KSEB Ltd vide letter dated 6-8-2018				217.35
Balance Employee cost	81.89	233.76	1,606.72	1,922.37

R&M Expenses

6.18 The total R&M expenses for KSEB Ltd as per the petition were Rs.265.12 crore. The SBU wise split up details shows that for R&M expenses for SBU-G is Rs.27.70 crore, and that of SBU-T is Rs.47.21 crore and that of SBU-D is Rs.190.21 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 10
Approved R&M expenses for 2016-17

	As per truing up petition	Approved in the truing up
	(Rs.crore)	(Rs. crore)
SBU-G	27.70	19.83
SBU-T	47.21	70.20
SBU-D	190.21	198.22
KSEB Ltd	**265.12**	**288.24**

As per the Regulations, R&M expenses for the year is 2016-17 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.19.83 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.288.24 crore for 2016-17.

A&G Expenses

6.19 Another component of O&M expense is A&G expenses. The A&G expenses of Rs.374.79 crore booked is inclusive of Electricity Duty amounting to Rs.115.27 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 11
A&G expenses for the year 2016-17

	As per truing up petition	Approved in truing up
	(crore)	(R. crore
SBU-G	9.69	4.59
SBU-T	64.99	16.53
SBU-D	300.11	90.82
KSEB Ltd	374.79	111.94

6.20 The A&G expenses based on the parameters as per the Regulations is Rs.111.94 crore.

O&M Expenses for New Generating Stations

6.21 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.6.30 crore.*

Total O&M expenses

6.22 Total O&M expenses approved for the year 2016-17 is as shown below

Table 12
SBU wise approved O&M Expenses for 2016-17

	SBU-G		SBU-T		SBU-D		KSEB Ltd	
Particulars	As per truing up petition (Rs. crore)	Approved in truing up (Rs. crore)	As per truing up petition (Rs. crore)	Approved in truing up (Rs. crore)	As per truing up petition (Rs. crore)	Approved in truing up (Rs. crore)	As per truing up petition (Rs. crore)	Approved in truing up (Rs. crore)
Employee expense	91.16	81.90	260.29	233.76	1,788.27	1,606.72	2,139.72	1,922.37
R&M expenses	27.70	19.83	47.21	70.20	190.21	198.22	265.12	288.24
A&G expenses	9.69	4.59	64.99	16.53	300.11	90.82	374.79	111.94
O&M for new Stations	0	6.30	-	-	-	-	-	6.30
Total O&M expenses	128.55	112.61	372.49	320.48	2,278.59	1,895.76	2,779.63	2,328.85

Terminal benefits

6.23 KSEB Ltd in their petition stated that the terminal benefits for the year 2016-17 was Rs.1221.06 crore. The terminal benefits 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.

6.24 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.1221.06 crore, with Rs.814.40 crore being the liability of KSEB Ltd. The balance amount of Rs.406.66 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

6.25 Out of the total of Rs.814.40 crore approved for funding the terminal benefits from the funds of KSEB Ltd for the year 2016-17, **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 13
SBU wise terminal benefits approved for 2016-17

	SBU-G	SBU-T	SBU-D	KSEB Ltd
	Rs. crore	Rs. crore	Rs. crore	Rs. crore
Terminal benefits as per petition	81.83	127.07	1012.16	1221.06
Terminal benefits approved	81.83	127.07	1012.16	1221.06
Percentage	6.70%	10.41%	82.89%	100.00%
Terminal benefits funded through truing up	54.58	84.75	675.07	814.40
Terminal benefits to be funded by the Government	**27.25**	**42.32**	**337.09**	**406.66**
Total Terminal benefits approved	81.83	127.07	1,012.16	1,221.06

Interest and financing charges

6.26 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 were Rs.959.92 crore and Rs.946.21crore is claimed in the petition. After examining the details of asset additions made during the year furnished by KSEB Ltd, the Commission deferred the approval of interest charges for loans for addition of assets for want of necessary details as per the provisions of the Regulations. The Commission may consider the same appropriately as and when the required information is furnished by KSEB Ltd. 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 14

Summary of interest and financing charges

	SBU-G Rs. crore	SBU-T Rs. crore	SBU-D Rs. crore	KSEB Ltd Rs. crore
Total interest charges	**64.56**	**62.65**	**96.05**	**223.26**
Interest charges on GPF			143.45	143.45
Interest on security deposits			163.56	163.56
Other interest charges	0.52		19.10	19.62
Interest on working capital	6.30	7.89	-	14.19
Total interest charges	**71.38**	**70.54**	**422.16**	**564.08**

6.27 Total interest charges allowable for the three SBUs for the year 2016-17 is Rs.564.08 crore.

Depreciation

6.28 KSEB Ltd in the petition has claimed depreciation of Rs.617.51 crore for the year 2016-17.

Table 15

SBU wise depreciation claimed for the year 2016-17

SBU	**GFA as on 31.03.2016* Rs. Crore**	**% of GFA**	**Depreciation (Rs. crore)**
SBU G	4440.85	30.57	188.79
SBU T	4309.46	29.67	183.20
SBU D	5775.14	39.76	245.51
Total	14525.45	100	617.51

** excluding value enhancement*
*** the value of GFA furnished by KSEB Ltd in the Table (Rs.14525.45 crore) is different from value of GFAused for estimation of depreciation (Rs.15357.52 crore)*

6.29 As per the petition, the depreciation claimed for SBU-G for the year 2016-17is Rs.188.79 crore, of transmission is Rs.183.20 crore and of Rs. 245.51 crore

6.30 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 2016-17 is as shown below:

Table 16

Allowable depreciation for the year 2016-17

		SBU-G Rs. crore	SBU-T Rs. crore	SBU-D Rs. crore	KSEB Ltd Rs. crore
1	**Depreciation allowed in 2015-16**	**122.05**	**132.84**	**79.98**	**334.87**
2	Asset Addition 2015-16	34.79	212.24	491.40	738.43
3	Ind AS addition	13.32	81.26	188.15	282.73
4=2+3	**Total Asset Addition in 2015-16**	**48.11**	**293.50**	**679.55**	**1,021.16**
5	Less Contribution & Grants 2015-16		12.02	346.33	358.35
6=4-5	*Balance value of assets added*	*48.11*	*281.48*	*333.22*	*662.81*
7=6x5.28%	Depreciation for assets added in 2015-16 (@ 5.28%)	2.54	14.86	17.59	35.00
8=1+7	**Depreciation for 2016-17**	**124.59**	**147.71**	**97.57**	**369.87**

6.31 Thus, the total depreciation allowable for the year is Rs.369.87 crore and has been apportioned among SBU-G, SBU-T and SBU-D as Rs.124.59 crore, Rs.147.71 crore and Rs.97.57 crore respectively.

Other expenses:

6.32 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.49.79 crore, which is inclusive of Rs.8.54 crore under bad and doubtful debts, Rs.15.55 crore written off/provided and demand withdrawal from consumers. Further material cost variance of Rs.64.32 crore.

6.33 As per the petition the total of Other expenses including prior period credit/charges was Rs.49.75 crore. Considering the details furnished by KSEB Ltd, the SBUwise other expenses approved in Chapters 2, 3, &5 are as shown below:

Table 17
Approved Other expenses

	As per truing up Petition	Approved in truing up
	(Rs.crore)	(Rs. crore)
SBU-G	41.16	41.16
SBU-T	69.94	69.94
SBU-D	(-)61.35	(-)71.61
KSEB Ltd	49.75	39.49

Return on equity

6.34 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 18
Return on equity sought by KSEB Ltd

	As per truing up 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	490.00	68.64
Total	3,499	489.86

6.35 KSEB Ltd stated that, the methodology followed for segregation of equity among the 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. 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 19

SBU wise Return on equity approved for the year 2016-17

	SBU-G		SBU-T		SBU-D		KSEB Ltd	
	As per truing up Petition	Approved in truing up	As per truing up Petition	Approved in trung up	As per truing up Petition	Approvedin truing up	As per truing up Petition	Approved in truing up
	Rs. crore	Rs. crore	Rs. crore	Rs. crore	Rs. crore	Rs. crore	Rs. crore	Rs. crore
Equity	1,454.50	1,719.45	1,554.20	750.72	490.3	1,028.88	3,499.05	3,499.05
RoE	203.63	240.72	217.59	105.10	68.64	144.04	489.86	489.86

Carrying cost for past revenue gaps

6.36 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.

6.37 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 2016-17 is approved after deducting considering the funds available as GPF contribution for which interest has been provided:

Table 20

Carrying cost for the accumulated revenue gap

Carrying cost	Rs. crore
Accumulated Revenue gap 2013-14	5,452.15
Approved revenue gap 2015-16	202.97
Total Revenue gap	**5,655.12**
Average GPF Balance	1755.725
Balance revenue gap to be funded	3,899.39
Rate of interest	10.45%
Carrying cost	**407.49**

6.38 As seen in Table above, while revenue gap ending 31-3-2016 as per the truing up Orders was Rs.5655.12 crore, the average GPF available for 2016-17 was Rs.1755.73 crore. Thus, the net revenue gap for this period was Rs.3899.39

crore for which carrying cost of Rs.407.49 crore is allowed at the average loan interest rate of 10.45%.

Summary of Income, Expenses and Revenue gap after truing up

6.39 As detailed in the sections above, the summary of the income and expenses after truing up is as shown below

Table 21
Summary of Approved Truing up for KSEB Ltd for 2016-17

	SBU-G		SBU-T		SBU-D		KSEB Ltd	
Particulars	As per truing up Petition (Rs. crore)	Approved in truing up (Rs. crore)	As per truing up Petition (Rs. crore)	Approved in truing up (Rs. crore)	As per truing up Petition (Rs. crore)	Approved in truing up (Rs. crore)	As per truing up Petition (Rs. crore)	Approved in truing up (Rs. crore)
Revenue from sale of power	695.23	646.26	991.11	763.05	11,036.78	11,036.78	11,036.78	11,036.78
Non-Tariff income	22.23	22.23	35.46	35.46	479.82	456.23	537.51	513.92
Total Revenue	**717.46**	**668.49**	**1,026.57**	**798.51**	**11,516.60**	**11,493.01**	**11,574.29**	**11,550.70**
Cost of Generation	-	-	-	-	695.23	646.26	-	-
Cost of intra state transmission	-	-	-	-	991.11	763.05	-	-
Fuel cost	23.45	23.45	-	-	-	-	23.45	23.45
Power Purchase	-	-	-	-	7,551.41	7,544.28	7,551.41	7,544.28
Employee expense	91.16	81.89	260.29	233.76	1,788.27	1,606.72	2,139.72	1,922.37
R&M expenses	27.70	19.83	47.21	70.20	190.21	198.22	265.12	288.24
A&G expenses	9.69	4.59	64.99	16.53	300.11	90.82	374.79	111.94
O&M for new Stations	0	6.30	-	-	-	-	-	6.30
Total O&M expenses	**128.55**	**112.61**	**372.49**	**320.48**	**2,278.59**	**1,895.76**	**2,779.63**	**2,328.85**
Terminal liabilities	81.83	54.58	127.07	84.75	1,012.16	675.07	1,221.06	814.40
Interest and financing charges	50.05	71.38	56.28	70.54	839.88	422.16	946.21	564.08
Carrying cost on Accumulated Revenue gap	-	-	-	-	-	407.49	-	407.49
Depreciation	188.79	124.59	183.20	147.71	245.51	97.57	617.50	369.87
RoE	203.63	240.72	217.59	105.10	68.64	144.04	489.86	489.86
Other expenses	41.16	41.16	69.94	69.94	(-)61.35	(-)71.61	49.75	39.49
Gross Expenses	**717.46**	**668.49**	**1,026.57**	**798.51**	**13,621.18**	**12,524.07**	**13,678.87**	**12,581.76**
Revenue gap	-	-	-	-	2,104.58	1,031.06	2,104.58	1,031.06

6.40 KSEB Ltd as per their petition for truing up has furnished a revenue gap of Rs.2104.59 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.1031.06 crore.

Order of the Commission

6.41 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.1031.06 crore, after having deferred the approval of interest charges for loans for addition of assets for want of required details, in the truing up of accounts for the year 2016-17, as against the revenue gap of Rs.2104.59 crore claimed by KSEB Ltd in their truing up petition.

6.42 The petition is disposed off and orders accordingly.

Sd/-	Sd/-
K.Vikraman Nair	**S.Venugopal**
Member	Member

Approved for issue

Sd/-
K B Santhosh Kumar
Secretary

ANNEXURE

LIST OF PERSONS ATTENDED THE PUBLIC HEARING HELD AT THIRUVANANTHAPURAM ON 27.07.2018

1. Shri.A.R.Satheesh, President, Kerala HT EHT Association
2. Shri.George Thomas, Kerala HT EHT Association
3. Shri.Dijo Kappan, Consumer Education Trust
4. Shri.Viswanathan.K, BPCL- Kochi
5. Shri.Roshikh.P.A, Apollo Tyres
6. Shri.Shaji Sebastian, KSSIA, Ernakulam
7. Smt.Neenu Skaria, IECC
8. Shri.B.Pradeep, KSEB Ltd.
9. Shri.Bipin Sankar.P, KSEB Ltd.
10. Shri.R.Biju, KSEB Ltd.
11. Smt. Mehrunisa, TRAC, KSEB Ltd.
12. Shri.Girish Kumar.V.S, KSEB Ltd.
13. Shri.K.G.P.Nampoothiri, KSEB Ltd.
14. Smt.Santhini.G.P, TRAC, KSEB Ltd.
15. Smt.Latha.S.V TRAC, KSEB Ltd.
16. Smt.Seema.P.Nair, TRAC, KSEB Ltd.
17. Smt.Smitha Mathew, KSEB Ltd.
18. Smt. Lekshmi, SA, TRAC
19. Shri.Jayaprakash, KSEB Ltd., W.A (CITU)
20. Shri.Rajashekaran Nair, KSEB Ltd., W.A (CITU)

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2. K.A.Sivadasan, Institute for Sustainable Development and Energy Studies.