

THE KERALA STATE ELECTRICITY REGULATORY COMMISSION

THIRUVANANTHAPURAM

PRESENT: Shri. K.J.Mathew, Chairman
Shri P Parameswaran, Member
Shri. Mathew George, Member

November 21, 2011

Petition RPNo.9/2011

In the matter of

Review Petition on the Order on ARR&ERC of KSEB for the year 2011-12

The Kerala State Electricity Board

- **Petitioner**

ORDER

Background

1. The Order on ARR&ERC of the Kerala State Electricity Board for the year 2011-12 was issued on 1-6-2011. After the receipt of the Order, the Kerala State Electricity Board (*hereinafter referred to as the Board or KSEB*) has filed a review petition on 6-7-2011. The Commission admitted the petition as RP No.9 of 2011. In the mean time, the Kerala State HT&EHT Industrial Electricity Consumers' Association had also filed a review petition on the same order. The Board has submitted additional submissions on its review petition vide its letter dated 18-8-2011.
2. The Board has raised several issues for reconsideration. The issues raised by the Board are on estimation of Hydro generation, Employee cost, A&G expenses and R&M expenses, Return on Equity, Interest and financing charges, T&D Losses, Expenses capitalization etc. The petition was placed in the website of the Commission for inviting objections of the public and a press release was also issued for information of the public.

Hearing on the Petition

3. In the hearing held on 22-8-2011 at the office of the Commission, the representatives of the petitioner and the representatives of the Kerala HT & EHT Industrial Electricity Consumers' Association were present. Representative of the Board requested permission for presenting submissions in addition to the points raised in the petition. The Association requested that they may be given opportunity for rebuttal on the additional submissions if the request of KSEB is allowed by the Commission. The Commission examined the matter and directed that the additional submission may be placed in the website of the Commission for inviting comments and the hearing on the additional submission was fixed on 14-9-2011.
4. Thus, the hearing was held on 22-8-2011 and 14-9-2011. During the hearing, the Board was represented by a team led by the Chief Engineer (Commercial & Tariff). The Board sought review of the impugned order on the following items:
 - a) Hydel Generation target and resulting reduction on Cost of Generation and Cost of Power Purchase.
 - b) Employee Cost
 - c) Repair and Maintenance Expenses
 - d) Administration and General Expenses
 - e) Interest and Finance Charges
 - f) Return on Equity
 - g) T&D loss reduction target
 - h) Capitalization of expenses

The additional submissions of KSEB also deal with the above issues with additional supporting arguments. Specifically, it addresses on matters of fixing loss reduction target, estimation of various components of O&M cost and expenses towards pay revision. These issues were considered along with the original submission.

5. Regarding hydro generation, KSEB stated that the Commission has approved 8258MU where as KSEB proposed 7056MU for the year 2011-12. According to KSEB, there is no dispute on the figures relied on by the Commission, however, the reserve as on 1-4-2012 as per the order is only 550MU. This means that for the

month of April and May, the total water available for generation will be the reserve of 550MU and inflow of April and May only. This is insufficient since the average inflow in April and May will only be 4.5MU per day. The actual average daily hydro generation during April and May is 21 to 25 MU and the demand will be about 49 to 55 MU per day. In addition reserve of 550MU has to be kept as on 1-6-2012 for possible delay in monsoon. KSEB submitted that based on the actual storage, the hydro generation possible is 7188MU instead of 8258MU approved by the Commission, which is about 1070MU more than the possible generation. If the deficit of 1070MU is to be procured from outside, an additional amount of Rs.481.50 crore may be required.

6. Regarding the approval of O&M costs, (employee cost, repair and maintenance expenses and Administration and general expenses) KSEB has raised the issue of legality in adopting KSERC (Terms and Conditions of Tariff for Retail sale of Electricity) Regulations 2006. KSEB is still continuing as a single entity engaged in generation, transmission and distribution and the assets and liabilities of the Board is yet to be segregated in to functional levels. Hence, the O&M expenses are claimed by KSEB is for the single entity. Accordingly, the regulation which is applicable for a distribution licensee cannot be made applicable to KSEB as such. The Commission has also taken this stand in the Appeal No.8 of 2008 (M/s Binani Zinc Vs KSERC and ors) before APTEL.
7. KSEB further argued that the Commission has not informed KSEB about the adoption of provisions of the said regulation for approving the O&M expenses for the first time and no opportunity was given to KSEB to express the concerns and apprehensions and limitations in adopting the said regulations for approving the O&M costs. The Commission has also used the regulations selectively for approving only the O&M costs where as other items such as financing costs, interest on working capital etc., provisions of the regulations were not applied. If the Commission wants to adopt the provisions of the said regulations for approving O&M expenses, the same may be done after providing opportunity to KSEB.
8. Another contention in this regard made by KSEB is that the business growth of the utility was not considered while approving the O&M expenses. The increase allowed is only to cover the inflation indexed on WPI and CPI. In the case of KSEB, the consumer base and energy sales are increasing, new assets are added in three

functional areas and hence business growth shall also be properly considered. From 2008-09 to 2011-12, the consumer growth has increased by 11.87%, energy sale by 21.14% and GFA by 27.18%. KSEB has to incur O&M expenses for maintaining new and old assets in the system. Thus, the methodology adopted by the Commission without considering the business growth is an error. The State Commissions like Uttar Pradesh State Commission and Karnataka State Commission have accounted business growth while allowing O&M expenses. Accordingly, KSEB stated that business growth should also be accounted while allowing O&M expenses.

9. KSEB also raised an issue whether employee cost can be limited to the inflationary indices alone. According KSEB, as per the Economic Survey of India (2010-11) the per capita average emoluments of employees of Central Public Sector Enterprises Employees during the period from 1971-72 to 2009-10, have increased from Rs.5920 per person per annum to Rs.609816/person per annum (an increase of 10220.95%) where as the increase in consumer price index is only 1834.8%. Thus, the employee emoluments of CPSUs have increased five times than that of CPI.
10. In this regard, KSEB further stated that the Commission has provided 3% escalation in basic pay and failed to appreciate that as per the existing pay scale, the annual increment alone is about 3 to 5%. KSEB has to recruit new employees on account of business growth and also to meet the stringent performance standards enforced by the Commission. Thus, annual increment of 6% proposed by KSEB may be approved. Similarly, for DA, the Commission has allowed only Rs.272.14 crore, where as KSEB has proposed Rs.481.73 crore, which is also an anomaly. Dearness Allowance is a liability and uncontrollable expense of KSEB. As per the wage settlement KSEB has to provide DA in the same rate as that allowed by Government of Kerala. KSEB also pointed out the letter of the Commission dated 28-7-2010 clarifying that expenditure on account of DA/DR can be released to the employees. According to the Board, the provision included for pay revision as per the accounts of KSEB is only for 8 months for employees and 9 months for officers for the year 2008-09. Since the base year used by the Commission is 2008-09, the additions allowed will be only for part of the year. The additional liability on account of pay revision for serving employees would be Rs.181.44 crore as against Rs.109.77 crore approved.

11. Though the Commission has ordered that additional expenditure on pay revision shall be met through efficiency gain, it is impossible to meet the total increase of 14% through efficiency gain alone. The Board has quoted the Judgment of Hon. Appellate Tribunal in Appeal No.250 of 2006 to support the arguments. In the said order, APTEL has held that pay revisions take into account factors such as cost of living, salary levels in similar sectors etc., and not just employee productivity. The Board further submitted that several steps have been taken for improving productivity and to contain the raising trends in employee costs as part of the negotiation on wage revision as well as part of reform process. The steps include converting all distribution section offices into model sections, thereby reducing the requirement of linemen and overseers. Incentive allowance were withdrawn and spread over allowance was limited to breakdown wing as part of the long term settlement entered into with trade unions in February 2011. The computerization has been done in major areas including billing, accounting at ARUs, supply chain management, HRM activities etc., which may reduce the employee requirements. The consumers can remit the payments through debit and credit cards and online banking. KSEB claimed that at least 1% of the total additional increase after factoring the inflation and business growth shall be met through employee productivity.
12. In the case of pension and terminal benefits, the Commission has allowed only Rs.660.89 crore as against the projection of Rs 750.67 crore. While doing so, the Commission has not considered the increase in the number of retirements after 2008-09. Pension is a firm and unfunded liability, which depends on the number of pensioners. The Board has also requested to correct the clerical error in employee costs, instead of Rs.1582.11 crore approved, the cost adopted was only Rs.1541.30 crore.
13. Regarding R&M expenses, KSEB has pointed out that reduction was made without considering the age of assets, new assets added into the system and the stringent performance standards. In the CERC (Terms and Conditions of Tariff) Regulations 2009, special allowance has been provided for extending the life beyond the useful life. In between 2008-09 and 2010-11 the GFA of KSEB has increased by Rs.2360crore ie., about 27.18%. These assets necessarily require maintenance. KSEB requested that since the Commission has already initiated the process for

specifying norms, the R&M expenses as projected by KSEB for 2011-12 may be approved.

14. Regarding A&G expenses, KSEB stated that though it is a controllable item, increase in proportion to the business growth of the utility to service new connections provided, increase in energy sales, new capital works in progress etc are to be considered in addition to inflationary factors. KSEB also requested for allowing Section 3(1) duty as part of A&G expenses. Another claim made by KSEB is on return on equity. The Government has already reverted the decision in its order dated 13-12-2010, so as to continue the Equity to the tune of Rs.1553 crore. The Board has claimed 15.50% return on this equity component. The Board has repeated the arguments on providing the return quoting the provisions of the Electricity (Supply) Act 1948 and Tariff Policy.
15. Regarding interest and financing charges, KSEB has stated that while considering the opening balance, the short term loan was not considered. The actual outstanding STL as on 31-3-2011 was Rs.578.52 crore, which was reduced due to the receipt of subsidy from the Government and arrears from Kerala Water Authority. Thus the actual capital liabilities as on 31-3-2011 is about Rs.1067 Crore. Further, the duty retained by the Board to the tune of Rs.290 Crore also has to be considered for allowing the interest. In 2011-12, the Commission considered only Rs,500 crore as additional loans against Rs.1036 crore proposed by the Board on the presumption that funds are available in the form of depreciation. At present the daily short fall in revenue is about Rs.2.5 crore. Hence, the Board requested to allow the interest charges as proposed in the Original petition. KSEB also requested to review the T&D loss reduction targets approved by the Commission. According to KSEB, while deciding the loss reduction target, actual loss level in 2010-11 has not been considered by KSEB. KSEB has also stated that though the Commission has reduced the expenses and interest and financing charges, the expenses and interest capitalized were not reduced proportionately.
16. In the additional submissions, KSEB has stated that loss levels in Kerala is one of the lowest in the country and the loss reduction target fixed by the Commission, based on the estimated loss level of 16.52% in 2010-11, is about 1.21% instead of 0.69% proposed by the Board. According to KSEB, loss reduction targets fixed in various states ranges from 0.1% to 0.75% only. In the absence of any long term loss

reduction trajectory approved by the Commission, KSEB has to plan during the year well in advance. Hence they requested to fix the loss reduction target for the year 2011-12 as 15.89% itself, instead of 15.31% approved by the Commission. KSEB has also sought to consider a band of 0.5% on the loss target proposed i.e., the loss level for 2011-12 between 15.64% and 16.14%.

17. In the additional submissions, the Board has primarily pointed out the inadequacy of the methodology adopted for estimating the reasonable expenses by the Commission. According to KSEB, the components of O&M expenses are controllable in nature but the influencing cost elements are more than a single parameter. There will be linear as well as non-linear relationship between these costs and variables involved. According to the Board, if the GFA increase is 10%, increase in CPI and WPI by 6% and 8%, increase in consumer base by 9%, the resultant increase of 16% in R&M expenses cannot be termed as abnormal, since these factors would be contributing to increase in expenses. Further, increase in R&M expenses in one function does not necessarily follow the same pattern in other function. Hence, to ensure that controllable expenses are reasonably estimated/ approved on a normative basis, it is necessary to formulate a formula adequately addressing all the major cost influencing parameters. By using only inflation parameter, the Commission erred in applying the relevant index in the formula. Similarly, it is a fact that DA increases are based on CPI, and WPI which have no role in estimating employee expenses. The Board has illustrated with tables to show that applying inflation factor on the components other than Basic Pay will actually lead to a situation of considerable disallowance of costs which is actually incurred by the Board in the case of normal DA itself. Considering this, the Board requested to allow the projections of the Board which are indirectly capturing the influence of various parameters as well as historical trend, till new norms are developed by the Commission.

18. The Board in the petition argued that for ascertaining the reasonableness of costs, proper benchmarking is required. While benchmarking the costs of KSEB with other distribution utilities, the Commission appears to be influenced by the per unit cost, which is not proper and hence new methodology for benchmarking is proposed by KSEB. According to KSEB, per unit values (Rs./kWh) capture the relationship between costs and sales alone where as distribution utility is influenced predominately by size of consumer base and higher consumer base does not always

translate to higher sales volume. The employee cost, R&M expenses, and A&G expenses are directly related to number of consumers served since the major activities of the distribution utilities include release of new connections, meter reading, billing, collection, handling of supply interruptions, handling billing complaints, maintaining standards of performance etc., rather than number of units consumed. Accordingly, relationship with consumer strength and volume of energy sales need not be similar among the various utilities and hence benchmarking with other utilities on the basis of per unit value of costs will not provide correct results.

19. The Board, based on data from 50 distribution utilities in the country, has attempted to establish that though the electrification index is high in the State, the sales volume is comparatively low. According to KSEB, large consumer base with low specific consumption results in higher O&M costs, which translate to higher per unit cost for O&M expenditure in the overall cost structure of KSEB. The Board also argued that consumer mix also influences the sales volume. High consumer base and low specific consumption is due to the peculiar development paradigm followed in the State and KSEB cannot be at the receiving end as a result of this. In many States terminal liabilities are taken care of by the State Transmission Utility or generation company. Hence the same will not reflect in the cost structure of distribution, but reflects as transmission charges or power purchase cost. So comparing utilities on a cost per unit (Rs./kWh) basis is not a proper method. By comparing the employee costs of various utilities, the Board presented that when absolute value of employee cost is taken into account, Kerala stands 12th position among the states considered, where as on account of consumer base Kerala is in the 3rd position and on energy sales it is in the 14th position. Based on employee costs per consumer, position of Kerala is comparatively better in relation to other States. The reason, according to KSEB for higher share of employee cost in terms of revenue, is due to the increase of employee costs due to inflation and sales growth, where as the revenue growth is attributed to sales alone, without any tariff increase. When the area of supply is limited and the price is regulated, scope for increase in sales volume is limited. The additional expenditure on pay revision cannot be suddenly absorbed through productivity improvements. Hence, adequate provision in the ARR is required. Many Commissions in India have allowed the impact of pay revision in the ARR. The Board also argued, citing the example of the order of APTEL, that the question of allowing pay revision expenses over and above normative expenses as an uncontrollable item of expenses has already been legally settled. Even in terms of

average cost of supply the position of KSEB is comparatively better. Hence, they requested that genuine and legally bound expenses on pay revision may be allowed as estimated by the Board.

20. There are many initiatives taken up by the Board for cost reduction. The new workforce norms replaced the earlier concept of deploying the employees based on number of consumers. Various measures including automation are envisaged as part of R-APDRP scheme. With existing staff, KSEB has diversified its activities and developed in-house IT applications in different functional areas. The capital works in distribution has increased substantially, which resulted in reduction in T&D loss. The efficiency improvements realized by the Board through various activities are already captured in the estimates of ARR. According to KSEB, the Board is committed to further improvements in operational efficiency and reduction in costs, but disallowance of reasonable expenses based on inadequate methodology would adversely affect the cash flow of KSEB which could derail the efforts for cost reduction.

21. In view of the above new and important evidences furnished in the review petition by the Board, which could not be presented at the time of considering the original petition (since the Board was unaware of the methodology adopted by the Commission), the Board requested to review the order and allow the O&M expenses as estimated by the Board.

Objections of the stakeholders:

22. Objecting the petition of the Board, the representatives of the Kerala State HT-EHT Industrial Electricity Consumers' Association has stated that KSEB has been filing review petitions on almost all the ARR&ERC Orders issued by the Commission. The Board is continuously harping on issues which are already settled like the electricity duty under Section 3(1) of KED Act. Regarding hydro inflow, the Association pointed out that the argument of KSEB that the reserve allowed as on 31-3-2012 is insufficient is not completely disputed but, the main issue is computation of hydro generation availability based on 20 year data. The Association reiterated the argument of having capacity weighted inflow computation method. If the capacity weighted method is followed the energy availability would be 7443MU instead of 6625MU considered by the Board. Based on the actual storage level as on 1-4-

2011, the Association has arrived at the energy potential as 8274MU compared to 7188MU proposed by the Board. Hence, they have requested to consider 8272MU as hydro generation. They further pointed out the mismatch between hydro generation and inflow statistics for which KSEB has stated that it is due to spill. However, the Association maintained that spillage cannot be the reason for such discrepancy.

23. Regarding the applicability of Regulation for estimation of O&M expenses, the Association stated that bifurcation of KSEB should have been done long back so that the regulations should have been made applicable. KSEB is still being continued as an integrated utility for which KSEB and GoK are responsible. As per the Order of the Commission, the provisions of the regulation is used only as a supporting point and not as the point on which Commission has taken their decision. The stand of KSEB that the regulations are not applicable to them since it is a bundled entity is deplorable. The Association stated that Board has always attempted to wriggle out from the purview of regulations and at present no regulation is applicable to the Board. Thus whatever is being submitted by the Board has to be approved by the Commission.
24. The double digit growth in employee cost has always been objected to by all sections of stakeholders. The employ cost per unit has increased from 76 paise/unit in 2002-03 to 122 paise per unit in 2011-12. The Commission has expressed serious concern over the increase in number of employees and cost, based on its analysis on comparison of expenses with other utilities, comparison of cost structure and increase in employee parameters at functional level. The Association also expressed concern on the number of temporary employees working in KSEB at various levels, which are not being part of the official statistics, there by suppressing the overall picture. According to the Association, the Commission has studied the employee costs in detail before coming into a conclusion. Hence, there is no reason for reviewing the employee costs approved by the Commission.
25. The Association has also objected to the argument of KSEB that business growth is to be considered. According to them rather than business growth, size and age of assets affect the O&M expenses. KSEB has been spending money for replacement of assets and adding new assets, thus reducing the average age of assets. Thus the maintenance expenses has to be low. Hence, there is no reason for accepting

the arguments of KSEB on business growth. In the case of R&M expenses, the Commission has allowed higher increase in 2011-12 compared to previous years and there is no justification for an increase of 45.2% as demanded by KSEB. Regarding A&G expenses, raising the issue of Section 3(1) duty by KSEB amounts to contempt of court. Reasonable increases over the previous year has already been allowed. In the matter of return on equity, the Commission has taken a clear stand on providing return in the impugned order itself. The Commission has decided that KSEB should engage a reputed agency with the approval of the Commission to carry out a study on capital funding as early as possible on 17-5-2010. The KSEB has not followed the direction of the Commission, but they are merely repeating the arguments. As such no review is required in this regard also.

26. The Association also objected to the contention of the Board on interest and financing charges. The interest and financing charges allowed by the Commission over the years are always higher than the actual due to the unrealistic projection of capital outlay by KSEB. In this case also there is no ground for review. In the case of AT&C losses, the argument of the Board is baseless since the targets fixed by the Commission has never been achieved by the Commission. On these arguments, the Association requested to summarily reject the review petition of KSEB.

27. The Association has also presented their views on the additional submissions made by KSEB. According to the Association, additional data of other States given by KSEB are irrelevant and also not in any way support the contentions of KSEB. The loss reduction target approved by the Commission is reasonable and are comparable to many states as shown in the data set given by KSEB. The request of KSEB to fix a loss reduction target with a band of 0.5% is another attempt to reduce the loss reduction target in an indirect manner. The Association strongly opposed the proposal of KSEB to have a band for loss reduction target. Regarding employee costs the arguments of KSEB are not new and it is interesting to note that there is no mention on various proposals put forwarded by the Association such as outsourcing of non-essential jobs, new pension scheme for new employees, payments through e-banking for more category of consumers, pre-paid meters for new consumers etc., The Association stated that the need for wage revision is fully realized but the licensee is neglecting the viable proposals of objectors and the Commission to control employee costs. Instead of employee cost per consumer, the Board should have compared employee cost as percentage of cost of supply in

different States. As against the arguments of the Board, if the cost of temporary employees is considered, KSEB will be in a top position. A State with 40-50% of generation from hydro sources and 30 to 40% is from low cost central stations, the second position with average cost of supply cannot be considered as a major achievement. Thus, they have requested to reject the additional submission of the Board.

Analysis and decision of the Commission

28. The Commission has considered the detailed arguments of the Board and the objections thereof. As per the provisions of Section 94(1)(f), the Commission has been vested with the powers for reviewing its decisions, directions and orders as in the Code of Civil Procedure 1908. Accordingly, clause 67(1) of KSERC (Conduct of Business) Regulations, 2003 provides that:

Powers of Review, Revision etc.,-(1) The Commission may either on its own motion or on an application made by any interested or affected party, within 90 days of the making or issuing of any decision , direction, order, notice, or other document or the taking of any action in pursuance of these regulations, review revoke, revise, modify, amend, alter, or otherwise change such decision, direction, order, notice, or other document issued or action taken by the Commission or any of its officers.

29. The application and the scope of the review of an Order are circumscribed under Order 47, Rule 1, of Code of Civil Procedure, 1908. The review power, under the aforesaid provision is reproduced as below: -

“Application for review of judgment – (1) Any person considering himself aggrieved –

(a) by a decree or order from which an appeal is allowed, but from which no appeal has been preferred; or

(b) by a decree or order from which no appeal is allowed; or

(c) by a decision on a reference from a Court of Small Causes, and who, from the discovery of new and important matter of evidence which, after the exercise of due diligence, was not within his knowledge or could not be

produced by him at the time when the decree was passed or order made, or on account of some mistake or error apparent on the face of the record, or for any other sufficient reason, desires to obtain a review of the decree passed or order made against him, may apply for a review of judgment of the Court which passed the decree or made the order”.

30. Hence, deliberation on the merits of the issues already discussed in the original order is not contemplated in a review proceedings. The review jurisdiction is a limited power to be exercised when new facts which could not be produced at the time of the order or any apparent error on the face of record are brought to the notice of the Commission. This being the position, the Commission is open to deliberate on the issues raised by the Board within the framework of the powers conferred upon the Commission under the Review jurisdiction. Based on the arguments and submissions made by the parties, the major issues raised by the Board in the petition are as follows:

- a) Opportunity was not given before deciding the norms
- b) Estimation of hydro generation without considering adequate reserves
- c) The applicability of KSERC (Terms and conditions of Tariff for Retail Supply) Regulations, 2006
- d) While deciding on the approved level of expenses business growth was not considered and proper benchmarking was not done.
- e) Rate of increase allowed for O&M expenses cannot be limited to inflation and wage revision cannot be funded completely from productivity increase. Expenses are driven by number of consumers which in turn may not drive sales growth.
- f) Return on equity is to be allowed as projected
- g) T&D loss reduction targets are higher than achievable.
- h) Capitalization of expense is to be appropriately modified

31. Before examining the issues raised by the Board, the Commission considered certain principles followed in the ARR&ERC determination process. The ARR&ERC approval process was started from 2003-04. The cost plus (rate of return) principle was adopted for approving the ARR of the licensee, where in predetermined rate of return is allowed for the licensee after meeting all the genuine expenses which are prudent and useful along with ensuring adequate service quality. In this regime,

periodic regulatory reviews ensure that expenditures deemed appropriate by the regulatory body are passed on to the consumers. By following the principles, the Commission ensures that the regulated entities are passing on only prudent expenses which are incurred, to the consumers. However, the inherent weakness of the cost plus regime is the information asymmetry and lack of incentives for the regulated entity to aggressively restrain or reduce the costs. The Commission in its previous orders have pointed out the increases in costs of the licensee under various heads to substantiate this outcome. The alternative is to have performance based or incentive based regulatory regime, where expense/price is capped based on Retail Price Index (RPI) and an efficiency factor (X) is provided for taking care of the increase in efficiency levels. This allows the utilities to have discretion over the operating decisions and to retain all gains/losses achieved beyond the established benchmark fixed based on RPI-X. In this case the returns for the licensees are not capped since the efficiency gains achieved by the regulated entity is allowed to be retained. In this context it is to be noted that on being aggrieved by the disallowance of certain cost items in the previous ARR&ERC exercise, the Board has approached the Commission for fixation of norms for expenditure approvals. The exercise is going on. It is also to be noted that the Board has insisted on having norms for expenditure approval, so as to have operational freedom. The Hon. APTEL in Appeal No. 177/2009 (KSEB Vs KSERC) has also directed the Commission to have norms, which have to be decided within six months on the date of order. On this premise, it is fair and reasonable that the Commission decides on having a norm for expenditure approval for the year 2011-12 so as to have operational freedom for reducing the expenditure and reaping the efficiency gains by the licensee. Further, the Commission has realized over the years that cost plus regime has not yielded any compulsions for the licensees to curtail the expenses. In this context the provisions of Section 61 of the Act is pertinent, which provides for encouraging competition, efficiency and economical use of resources, good performance and optimum investments along with rewarding efficiency in performance. Determination of expenses based on predetermined indices ensures rewarding efficiency and good performance.

32. Accordingly, the Board has to come into terms with the performance based regulatory regime rather than cost plus regime, where only prudent costs based on actual are passed on to the consumers. In the performance based regime the task is not to accurately project the expenses for the ensuing year considering various

variables affecting the expenses, but to decide a reasonable level of expenses based on which the licensees have operational freedom to limit the expenses and earn and retain the efficiency gains. The circumstances leading to the above decision other than the request of the Board for having norms are specified under para 6.5.2 of the impugned order. On this premise, the contentions of the Board are examined one by one.

33. The first issue is that sufficient opportunity was not given to the Board while deciding on the normative expenses. This is not correct. In this context, the Commission has specifically raised the issue during the public hearings and also in the meeting with the top management of the Board held on 4-5-2011. This being so, in all fairness, in the present proceedings, sufficient opportunity was given to the Board to elaborately present the case before the Commission. Also the Commission has examined in detail all the arguments raised by the Board in the original petition as well as in the additional submissions in the present proceedings. .
34. The second issue is on the hydro generation projected for the year 2011-12. According to KSEB, while projecting the hydro generation potential, the Commission should have taken the required reserve for the months of April and May 2012 also, in which case the hydro potential projection for 2011-12 could have been lesser. Thus more provision for procuring power from other sources should have been made for 2011-12. The HT-EHT Association has repeated their earlier arguments on the projection of the inflow made by KSEB which the Commission had considered and set aside in the original order. However, the Commission recognized an error made in the original ARR&ERC order on the computation of hydro potential as pointed by the Board. If the provision for hydro power for the months of April and May 2012 are not made from the water available in the current water year, the Board would have no option but to go for high cost power to meet the demands for those months. Such a situation should not be allowed to develop in the next FY. Hence, 1083 MU shall be provided for the months April and May 2012 from the hydro potential available in the current year, which takes care of the projected hydro demand for the months less inflow expected. The Commission also recognizes that there will also be a consequential reduction of 1076MU in hydro availability for 2011-12. But it has been observed that the actual inflow in the current water year is higher by around 1000MU when compared to last year. Hence, it can be seen that the projections in the 'Power purchase and generation cost approved for 2011-12' (section 6.2.6) in the

order on ARR&ERC for the year 2011-12 need not be altered. Hence the Commission shall not provide any additional provision for purchasing power from other sources in the ARR as requested by the Board at present. However, the Board will be free to resort to short term power purchase from the Market at competitive prices to meet the minor variations in the projections of hydro availability during the current year 2011-12, which will be taken care of while truing up petition is considered for the year.

35. The third issue is the applicability of KSERC (Terms of Conditions of Tariff for Retail sale of Electricity) Regulations 2006. According to the Board, the said regulation is for the distribution licensees and some of the provisions may not be applicable to the Board. On this issue, the stand taken by the Commission in the impugned order is reproduced here, which is self explanatory:

“The Commission has considered various parameters that have been presented by the Board as well as the stakeholders. Several State Commissions have been benchmarking the operational costs based on inflation indices - WPI (Wholesale price index) and CPI (consumer price index – for Industrial Workers). The KSERC (Terms and Conditions of Tariff for Retail Sale of Electricity) Regulations 2006 have also such provisions. Clause 15(3) of the said regulation provides that ‘the approved base value may be indexed to predetermined indices such as Consumer Price Index, Whole Price index or a combination of both indices for subsequent years. The Base value of O&M expenses can be indexed to 70% of CPI and 30% of WPI. Accordingly, the Commission after detailed deliberations decides to benchmark the O&M expenses based on CPI and WPI on a 70:30 ratio for 2011-12. “

36. Another argument is that the methods used by the Commission for approval of expenses did not completely take care of the factors influencing the expense components. In order to substantiate these arguments, the Board has stated that instead of inflation, many other parameters which influence the costs elements have not been considered. However, in this context, the Commission would like to reiterate the principles mentioned in para 31 above. There is basic distinction between cost plus and incentive based regulation. The reason necessitated for such a change is also mentioned above. It was deliberated in the Public Hearing and the

meeting with the Board. Based on these, the Commission has decided to have expenditure approval based on CPI:WPI index, considering 2008-09 level of expenditure as the base. Thus, in the impugned order, the aim was not to project the employee cost for the ensuing year based on several parameters accurately but to have reasonable level of expenses on which licensees can cap their expenses. If the aim was to project the employee cost accurately considering the present trends and behavior of historical costs, the methodology suggested by the Board would have been relevant. In an incentive based framework the attempt is to provide a cap on the expenses based on a base level of expenses (in this case actual for 2008-09), so that the full freedom is available to the utilities to decide on the level of expenses within the cap and devise appropriate strategy to bring down the expenses so as to realize all the benefits of cost savings. The essence of controllable and uncontrollable principles itself arises in this context. As rightly mentioned by the Board the controllable costs are capped at the approved level and uncontrolled expenses are allowed based on prudence check. Interestingly, the Board also recognized this fact and argued that 'The Board recognizes that in a regulatory system there can be differences in actual accounts and regulatory accounts'.

37. As a commercial entity, the revenue driver of the Board is sales. If the contention of the Board that high consumer density with low per capita consumption in the State results in low revenue growth is accepted for argument sake, as a commercial entity it has to devise methods for reducing the costs to sustain the business. Over the years, such efforts are not visible on the part of the KSEB. This fact has been examined in the impugned order in relation to many parameters and it has been concluded that increase in expenses and increase in asset base or other input factors are not proportional. Since KSEB is in the business for more than 50 years and is familiar with specific conditions in Kerala, it is expected that methods suitable to the Kerala situation are devised so as to reduce the costs. The Commission is of the view that if proper incentive-disincentive systems are created, such channeling of efforts is possible. The system of passing on all incurred costs to the consumers will be great disincentive for cost reduction. The method followed by the Commission in this context is not unique in the country. Various State Commissions in the country have capped the expenditure based on the Inflation Factors.

38. Regarding the consideration of business growth, the argument of the Board is not entirely correct and such arguments are not consistent with performance based

regime. It is also to be noted that while fixing the level of expenses, the efficiency factor ('X' factor in the RPI-X regime) is deducted from the inflation factor so as to account for the improvements in the efficiency as explained in para 31. The Karnataka Commission has adopted such a method, while using long period average inflation of about 5 to 6% adopted by CERC. In the impugned order, the Commission has not considered the efficiency factor and deducted it from the inflation factor. This should provide sufficient flexibility in projections to cover the growth in the network, consumer strength etc. The business growth after the year 2008-09 is already factored in the above method. As such the Commission does not find it necessary to provide allowance for business growth as an extra item.

39. The Board has stated that in the ARR petition for the year 2011-12, the expenses were estimated considering the Board as a single bundled entity. However, KSEB has argued in the present proceedings that three functions are to be separately treated and separate approvals could have been attempted by the Commission. It is pertinent to note that Board has argued that R&M expenses should be based on percentage of GFA. However, the Commission in the impugned order has analysed these factors and concluded that projections of R&M expenses are not reasonable and R&M expenses with respect to GFA is different for different functions, which cannot be benchmarked on a uniform basis. In the present proceedings, the Board has put forward arguments based on the distribution function alone, which is not consistent with the original arguments. The Commission has insisted on licensee wise separate filing on ARR&ERC, however, Board could not provide the same, but given the functional separation based on some adhoc norms, which the Commission could not use. Proper segregation is necessary for each function for analytical purposes, which is not available at present. While presenting the arguments, KSEB was overly influenced by the distribution function without having much consideration of the other functions.

40. Regarding the age of the assets and life, it can be seen that over the last few years, the asset additions are showing an increasing trend. Considering the continued addition of assets, the remaining life period of the Assets are increasing as shown below. The Asset addition also shows that almost 50% of the GFA in 2009-10 is new compared to 2003-04 level. These factors indicate that either the new assets are added substantially or system refurbishment has taken place regularly which get reduced the age of assets/increased the useful life of assets.

Gross Fixed Assets and remaining life period of Assets based depreciation

Gross block beginning of the year (Rs. Crore)			
	2003-04	2006-07	2009-10
Thermal Generation	886.95	968.44	995.51
Hydel generation	1,211.40	1,954.59	2,406.24
Transmission	1,816.44	2,399.22	3,253.94
Distribution	1,675.25	2,389.37	3,529.34
Total	5,590.04	7,711.62	10,185.03
Remaining life period of Assets based on Straight line depreciation			
	2003-04 (Years)	2006-07 (Years)	2009-10 (Years)
Thermal Generation	12.34	12.19	14.25
Hydel generation	24.81	29.54	33.77
Transmission	20.36	22.81	23.85
Distribution	14.41	15.40	20.33
Total	17.14	19.00	22.57

41. All along, the Board has maintained that whatever is being projected by the Board in the ARR petition should be approved stating that, the projections were made indirectly capturing the influence of various parameters as well as historical trend, though the method of arriving at such parameters were not explained. However, as shown in the following table, the divergence between projections and actual are substantial showing that the projections made by the Board in the ARR&ERC petitions do not entirely reflect actuals. Thus approval of the projections as such without proper regulatory scrutiny is not feasible.

Comparison of ARR projections and actual of KSEB for various years

Particulars	2006-07(Rs.cr)		2007-08(Rs.cr)		2008-09(Rs.cr)		2009-10(Rs.cr)	
	ARR	Actuals	ARR	Actual	ARR	Actual	ARR	Actual
Employee Cost	882.20	898.09	965.00	904.88	1,136.86	1,255.19	1,069.96	1,451.53
Repairs & Maintenance	96.50	110.99	101.47	116.26	131.05	138.80	152.74	173.16
Administration & General Expenses	108.85	135.10	125.63	125.35	140.06	135.46	155.21	166.95
Gross Expenditure	3,877.49	4,419.30	4,413.48	5,087.11	5,601.55	5,975.03	5,979.49	6,376.04
Difference between ARR& Actuals	Rs. Crore	(%)	Rs. Crore	(%)	Rs. Crore	(%)	Rs. Crore	(%)
Employee Cost	15.89	2%	(60.12)	-6%	118.33	10%	381.57	36%
Repairs & Maintenance	14.49	15%	14.79	15%	7.75	6%	20.42	13%
Administration & General Expenses	26.25	24%	(0.28)	0%	(4.60)	-3%	11.74	8%

42. Over the years, the Commission is harping on controlling the increases in controllable expenses. In the impugned order also, the Commission had attempted to compare various input and output parameters. However, in the proceedings before the Commission, the Board could not present an effective case on the cost reduction efforts. Though the Commission has been expressing concern over the increase in expenses, such concerns are not properly addressed in actual practice. The Board claims significant cost saving on account of efforts taken as part of wage revision such as curtailing incentives and reduction in employees. However, it is evident that the cost savings are miniscule considering the large scale increases in the overall employee cost proposed. The total increase in employee cost proposed was Rs.460.17 crores in two years (between 2009-10 to 2011-12). But the total productivity gains claimed by the Board in its own Statement is “about 1% of the increase in employee cost factoring ‘inflation and business growth’ through productivity”. This will in any case may not be above Rs.10 to Rs.20 crore. Further, in terms of reduction in number of employees claimed by the Board, the comparison was on requirement of employees based on norms fixed long back rather than actual number of working employees. Further, the comparison also excludes substantial number of persons working on contract basis which was never booked as part of the official employee statistics. Thus, more evidence is required to substantiate the stand taken by the Board.

43. Another contention advanced by the Board is that the effect of pay revision was not considered in the approved expenses. The Board has brought to the notice of the Commission an Order of Hon. APTEL (Appeal No.250 of 2006) in this regard. However, the Commission is of the view that the Order is not squarely applicable to the present case. Even though the Board did not adhere to the directions of the Commission on pay revision, the Commission has considered the provisions made by the Board for the year 2008-09. In 2008-09, the Commission has allowed a provision of about Rs.181 crore of which Rs.31 crore was for DA revision and the rest for pay revision. In the year 2009-10, as per the accounts of the Board, the total provision made was only Rs.137.56 crore. Hence, it cannot be said that the provision made in 2008-09 is unreasonably low. Since provision for pay revision was available in the base year 2008-09 which was indexed further based on CPI & WPI and provisions for annual increases, it cannot be said that the impact of the pay revision was not addressed. Accordingly, the argument of the Board cannot be accepted in this regard. Another argument of the Board was that it is difficult for

absorbing cost of pay revision through increased productivity. Since the pay revision impact is already taken into consideration while fixing the base figures, the argument of the Board is not sustainable.

44. Another contention is that pension liabilities are firm, which the Commission also agrees. However, it can be noted that pension liabilities are firm if it is an unfunded liability. The number of pensioners as on 31-03-2009 was 29993 which was increased to 31108 as on 31-03-2011 i.e., the increase is 1115. The actual number of employees are also increasing over the years. This means that recruitments were always more than the retirement levels, which resulted in increase in the number of employees every year, showing that efforts on reduction in employee costs are not effective. The Board argued that Pension is a firm liability depending on the number of pensioners as on date. Considering the life expectancy in Kerala, pension liability is likely to increase further. The Commission has been harping on creating pension fund and reducing the pressure on ARR. However, no progress has been reported towards this direction. Even after recognizing the nature of the pension liabilities, the Board has not concluded any substantive measures to reduce the pension liability and action on creating pension fund for meeting the pension liability is still not finalized and the pension remains an un-funded liability.
45. The Board has stated that the peculiar development paradigm of the State is the cause for increase in expenses. However, such blanket argument without considering the opportunities is not reasonable. The development model followed by the Board may also have benefits. During proceedings of Truing up petitions for the year 2007-08 and 2008-09, representative of the KSEB Officers' Association stated that the employee cost per consumer in rural areas is about Rs.1 and in the town it is only 20 ps. If this is true, the growing urbanization in the last decade should have brought about substantial cost saving opportunity for the Board. As per the Census data, the decadal increase (2001 to 2011) in urban population in Kerala is over 93%, whereas the total population has increased by only 4.86% and rural population has decreased by 26%. The number of towns in Kerala have increased from 159 to 520, and number of villages have decreased to 1018 from 1364 during the same period. The share of urban population in Kerala has increased from 26% to about 48%. Such magnitude of urbanization, should have brought down the employee cost per consumer.

46. The above conclusions can be supported using census data and the number of consumers given by the Board. As shown below the customer density in Kerala is almost double of that in the neighboring states. This is an additional indication for the possibility of cost averaging and lower perunit costs. The following table shows that the customer density in the State is very high, and the favourable indications on employee costs with number of consumers is born out of high customer density.

Population, No. of consumers, Employee cost & Consumer density in Kerala

State	Population : Census 2011 (Crore)	No. of consumers	Area of the State (SQ.km)	Population Density (No. of persons/sqkm)	Customer density (consumers /sq.km)	Employee cost (Rs. crore)	Employee cost/consumer
Delhi	1.67	44.57	11297	9340	394.53	1065	23.89
Kerala	3.33	105.00	38863	859	270.18	996	9.49
Tamil Nadu	7.21	247.49	130058	555	190.29	4066	17.89
Punjab	2.77	78.63	50362	550	156.13	2344	35.48
Haryana	2.53	48.04	44212	573	108.66	1186	27.48
West Bengal	9.13	93.22	88752	1029	105.03	1035	11.24
Karnataka	6.11	188.33	191791	319	98.20	1327	8.86
Andhra Pradesh	8.46	234.20	275045	308	85.15	2116	10.25
Maharashtra	11.23	224.49	307713	365	72.95	3295	18.56
Gujarat	6.03	129.07	196024	308	65.84	902	9.30
Uttar Pradesh	19.95	111.45	240928	828	46.26	1190	11.46
Bihar	10.38	41.70	94163	1102	44.28	664	15.92
Assam	3.11	30.30	78438	397	38.63	501	16.53
Himachal Pradesh	0.68	19.31	55673	123	34.68	815	42.21
Madhya Pradesh	7.25	103.54	308245	236	33.59	1336	19.69
Chhattisgarh	2.55	30.08	135191	189	22.25	554	25.42
Orissa	4.19	31.31	155707	269	20.11	775	41.97
Rajasthan	6.86	64.70	342239	201	18.90	1004	15.79

47. The Commission examined the arguments of KSEB that cost driver in distribution is number of consumers rather than sales. The Board while justifying the projections on employee costs, have presented certain comparisons with other entities based on the number of consumer related parameters. The foundation of the argument was

that O&M costs (especially employee costs) are driven by growth in number of consumers. It is true that, higher consumer strength may not translate to higher sales growth. Thus the proper benchmark would be cost per consumer index. While comparing the number of consumers, the Board has excluded the pumpset connections meant for agriculture use, though this may not be a meaningful assumption. As per the arguments of the Board, number of consumers is the driving factor for costs. If such argument is true, the utilities having higher consumer base should have higher cost and vice versa. However, the results provided by the Board did not confirm this. The lower cost per consumer of KSEB and other utilities having large consumer base point out the fact that per consumer cost falls as consumer base increases. This can again be verified with correlating cost per consumer with consumer density. The relation between Cost per consumer and total number of consumers indicates a strong negative relation ($r=-0.52^*$) showing that as number of consumers increases cost per consumer falls. Similarly, as consumer density and cost per consumer has a negative relation ($r=-0.10$) indicating that as consumer density increases, the per consumer cost would fall. Though these results without considering the other parameters of O&M expenses are only indicative, it can be seen that the high consumer base and consumer density should entail lesser cost per consumer.

48. Hence, the argument that employee cost when properly benchmarked is much low in comparison with that in the other states cannot be attributed to higher efficiency alone. The results presented by the Board shows contrary facts, which weaken the hypothesis put forwarded by the Board

49. While presenting the efficient employee related parameters of the Board compared to other utilities on one side, the Board claimed that a new concept is being introduced, which replaced earlier workforce deployment principles based on number of consumers to be served. This clearly reveals that the Board has convinced itself that as the technology has improved and new methods are available and deployed, persistence on outdated norms are unreasonable. Hence, no further comments are required on the arguments that in terms of employee cost/consumer in Kerala is comparable.

50. Based on the above, it is reasonable to conclude that distribution is a multi-input (O&M expenditure, network size, transformer capacity etc.,) and multi-variable

business (energy delivered, no.of consumers serviced, peak load), and any single measure to benchmark the cost may not reasonably address all issues. The supporting evidences presented by the Board based on number of consumers reflect only one side of the argument. The cost of providing distribution service has to be benchmarked to the set of variables mentioned above, which shall be a very complex exercise. But the Commission cannot approve all the projected expenditure in the existing situation since the realistic benchmarks are yet to be devised and developed. The benchmarks adopted by the Commission now are taken out of a Regulation published by the Commission after completing due process. Hence the decision of the Commission to adopt performance based regime to control costs benchmarking inflation factors using WPI:CPI based index is justified.

51.It is pertinent to point out that Hon, APTEL, in Appeal No. 177/2010 (KSEB Vs KSERC) has upheld the approach of the Commission on the employee costs. As per the judgment of the APTEL,

“The State Commission has held that the employees cost of the Appellant is already very high that the Appellant did not produce any material to substantiate the efforts taken to reduce such expenses. Therefore, the finding given by the State Commission on this head would not suffer from any infirmity.”

Hence, in the absence of adequate supporting evidence on the concrete efforts claimed to have been taken for reducing employee costs, there is no reason for allowing a higher employee costs.

52.The Board has pointed out the differences in the approved employee costs mentioned in the Order. The Commission though approved Rs. 1582.11 crore as employee costs for 2011-12, for arriving at the revenue gap, the employee cost considered was only Rs.1541.30 crore. This clerical error is to be corrected. The approved employee cost is Rs.1582.11 crore, which is to be used for arriving at the revenue gap. **Hence, the revenue gap for the year can be revised as Rs.928.62 crore, in modification of the amount of Rs.887.81 crore mentioned in the impugned order.**

53.Regarding T&D loss targets, the Board has argued for a change in practice followed by the Commission. The Commission has been allowing the loss reduction target

proposed by the Board. The case of the Board is that though the Commission accepted the loss reduction target of 0.69% for 2011-12, the actual reduction required would be 1.21%, since the estimated loss level for 2010-11 is 16.52% instead of 16% approved by the Commission. The Board has also advocated for a band of 0.5% for approving the loss targets. While noting that the argument raised by the Board in favour of the band limit for the target is reasonable, the Commission is of the view that the method followed by the Commission cannot be changed at this stage in the review proceedings. In all the truing up proceedings, the Commission had followed a practice of comparing the actual loss reduction achieved by the Board compared to the approved loss reduction target at actual loss levels. The present practice followed by the Commission has been upheld by the APTEL in Appeal NO.177 of 2010 (KSEB Vs KSERC). Further, in Appeal No.5 of 2009 in KSEB Vs KSERC (ARR&ERC order for KSEB for 2008-09) also Hon. APTEL had endorsed the methodology followed by the Commission. It is pertinent to note that during the hearing, the representative of the Board has claimed that the loss levels will be substantially better than what is projected for 2010-11. In such case, the grounds built up for the case fails. The issue of allowing a band should have been brought at the time of original proceedings. Hence on this account also, there is no sufficient grounds warranting a review of the Order.

54. Another argument made was that there is lack of predetermined annual targets for loss reduction. So far the Commission follows a policy of allowing targets proposed by the Board especially on loss reduction, thereby giving full freedom for the utility to plan and execute programmes. The Board did not advocate for long term loss targets in the original proceedings. In order to fix a base line number, the Commission has directed the Board to provide detailed studies on T&D Loss. But the Board could not produce a proper study in this matter. In the absence of proper studies from the licensees, the Commission has to rely on what is available. The Commission also notes that as in the case of majority of other State Commissions, it would have been better to segregate the loss levels at transmission and distribution so as to have a focused approach. However, the Commission could not adopt such a process, in the absence of reasonable estimates on actual loss levels at voltage levels.
55. The Board has also advanced arguments that interest and financing charges allowed for the year 2011-12 is insufficient and the Commission has not fully

considered the capital expenditure proposed. On this issue, the Commission is of the view that there is no new point or error apparent pointed out by the Board. All the issues were considered in the original proceedings and there is no scope for review on this item also as per the provisions of the law.

56. On the issue of return on equity, the stand of the Commission is presented in the impugned order itself and there is no sufficient case made on this issue. The last point raised by the Board is on the interest and financing charges capitalized. According to the Board, if the expenses are disallowed, proportionately capitalization of expenses are also to be curtailed. However, the Commission is of the view that there is no change made in the capital expenditure programme of the Board. Further, capitalization is considered at actual in the truing up petition. Considering all these, the Commission is not inclined to review this item.

57. The Board in its letter dated 5-9-2011, explained that as per the Order of CERC, the NLC has revised the tariff both fixed and variable charges. As per the information provided to the Commission, the total additional commitment from April 2009 to May 2011 is Rs.138.83 Crore. The additional liability for 2009-10 is Rs.55.67 Crore and Rs.65.16 crore is for 2010-11. The balance amount of Rs.18 core is for first two months of 2011-12. In addition, interest charges on outstanding liability as per the CERC norms claimed is Rs.16.23 crore. The additional commitment for the year 2011-12 is estimated based on the first two months liability as Rs.108 Crore. The Commission has considered the matter in detail. The Commission in the original proceedings has allowed KSEB to approach the Commission as and when the revision is due. Accordingly, the Commission in principle allows the additional commitment for the year 2011-12. The exact amount of liability for the year and the provisions created during the previous year can be communicated for approval. The commitment pertaining to the previous years can be taken up along with the truing up for respective years.

58. The Commission is already in the process of developing norms for generation, transmission and distribution functions. The Commission hopes that future ARR&ERC petitions can be scrutinized in the light of the new regulations notwithstanding any stand taken by the Commission in the past, if the study is completed in time.

Orders of the Commission

59. In the light of the materials placed before the Commission and the detailed analysis above, the Commission has come to the view that there are no sufficient grounds placed by the petitioner for a review of the Order dated 1-6-2011 on ARR&ERC of KSEB for the year 2011-12 except for the points as mentioned in para 34 and 52. The revised revenue gap after considering the corrections in employee costs is fixed as Rs.928.62 crore for 2011-12.

60. The petition is disposed of. Ordered accordingly.

Sd/-
P.Parameswaran
Member

Sd/-
Mathew George
Member

Sd/-
K.J.Mathew
Chairman

Approved for Issue

Secretary