



KERALA STATE ELECTRICITY REGULATORY COMMISSION

ORDER ON

ARR & ERC OF KSEB FOR 2012-13

Petition OP No.3 of 2012

April 28, 2012

KERALA STATE ELECTRICITY REGULATORY COMMISSION

Thiruvananthapuram

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

Petition OP No. 3 of 2012

**In the matter of
ARR & ERC of the Kerala State Electricity Board for 2012-13**

April 28, 2012

Kerala State Electricity Board : Petitioner

O R D E R

The Kerala State Electricity Regulatory Commission having scrutinized the petition on ARR and ERC for 2012-13 (OP No. 3 of 2012) filed by the Kerala State Electricity Board, considered the written objections filed by the stakeholders, consulted the State Advisory Committee, considered the subsequent written and oral submissions of the KSEB, heard the views of stakeholders at Kalamassery on 6-3-2012 and at Commission's Office at Thiruvananthapuram on 8-3-2012, and having considered other documents and materials on record, passes the following Order in exercise of the powers vested in it under the Electricity Act, 2003, on this behalf.

Sd/-

**P.Parameswaran
Member**

Sd/-

**Mathew George
Member**

Sd/-

**K.J.Mathew
Chairman**

Approved for Issue

Secretary

CONTENTS

Chapter	Description	Page No.
1	INTRODUCTION	
1.1	Preamble.....	1
1.2	Procedural Overview.....	5
1.3	Procedural formalities.....	7
1.4	Public Hearing.....	7
1.5	Deliberations in the Advisory Committee.....	9
2	OVERVIEW OF PROPOSAL ON POWER RESTRICTIONS	
2.1	Introductions.....	11
2.2	Objections of stakeholders.....	12
2.3	Analysis and decision of the Commission.....	15
3	ENERGY SALES PROJECTIONS	
3.1	Sales projections.....	18
3.2	Objections of stakeholders.....	19
3.3	Analysis of the Commission.....	20
4	REVIEW OF CAPITAL EXPENDITURE	
4.1	Introduction.....	25
4.2	Objections of Stakeholders.....	28
4.3	Analysis & decision of the Commission.....	29
5	TRANSMISSION AND DISTRIBUTION LOSS	
5.1	Introduction.....	33
5.2	Objections of Stakeholders.....	36
5.3	Analysis and decision of the Commission.....	37
5.4	AT& C loss.....	39
6	ANALYSIS OF ANNUAL REVENUE REQUIREMENTS	
6.1	Introduction.....	40
6.2	Generation and Power purchase.....	40
6.3	Interest and financing charges.....	59
6.4	Depreciation.....	64
6.5	Employee cost.....	67
6.6	A&G Expenses.....	75
6.7	Repair and maintenance Expenses.....	77
6.8	Other Expenses.....	80
6.9	Return on Equity.....	81
6.10	Expenses and interest capitalized.....	82
6.11	Aggregate Revenue Requirements.....	82

7	TARIFF AND NON TARIFF REVENUE	
7.1	Introduction.....	84
7.2	Total expected Revenue from Charges.....	88
7.3	Objections of Stakeholders.....	88
7.4	Analysis and decision of the Commission.....	88
8	SUMMARY OF ARR & ERC FOR 2012-13	90
8.1	Orders of the Commission.....	93
9	DIRECTIVES	94

ANNEXURE

I	List of persons who have filed written objections
II	Reply of KSEB on the Objections filed by stakeholders
III (A)	List of persons attended the public hearing held at Kalamassery
III (B)	List of persons attended the public hearing held at Thiruvananthapuram
IV	Minutes of the State Advisory Committee Meeting
V	Minutes of the Meeting with KSEB

CHAPTER - 1

INTRODUCTION

1.1 Preamble

The Kerala State Electricity Board (*hereinafter referred to as KSEB or the Board*) in accordance with the KSERC (Tariff) Regulations 2003, filed the Aggregate Revenue Requirements (ARR) and the Expected Revenue from Charges (ERC) for FY 2012-13 before the Commission on 31-12-2011. Prior to filing of the petition, the Board had sought extension of time for filing the petition till 31-12-2011. However, the Commission had allowed time till 20-12-2011. Though the Board vide letter dated 19-11-2011, sought further time till 31-12-2011, the Commission did not allow the request. In the petition the Board has proposed a revenue gap of Rs.3240.25crore and no proposal was made for bridging such a large revenue gap. The Commission in its letter dated 6-1-2012, directed the Board to present a detailed capital expenditure plan and the proposals for bridging the revenue gap within in one month. It has not been complied with entirely.

The Commission so far had issued nine Orders on ARR & ERC of the Board starting from 2003-04 as shown below:

Details of ARR&ERC of KSEB approved by the Commission

Year	Date of submission of ARR&ERC	Revenue Gap proposed by KSEB (Rs. Crore)	Approved ARR (Rs. Crore)	Approved Revenue (Rs. Crore)	Approved revenue (gap) /surplus (Rs. Crore)	Date of order
2003-04	1-8-2003	926.08	3,697.37	3,141.37	(556.00)	31-12-2003
2004-05	15-12-2003	854.19	3,492.46	3,196.00	(296.46)	16-4-3004
2005-06	15-11-2004	492.25	3,367.32	3,316.01	(51.31)	23-3-2005
2006-07	30-11-2005	302.78	3,680.43	3,865.05	184.62	30-3-2006
2007-08	11-12-2006	430.11	4,074.22	4,403.95	329.73	26-12-2007
2008-09	21-12-2007	754.69	4,983.27	4,979.34	(3.93)	19-4-2008
2009-10	29-12-2008	1,099.28	5,316.30	4,981.00	(335.30)	17-4-2009
2010-11	24-12-2009	2,219.60	5,931.85	5,474.38	(457.47)	17-5-2010
2011-12	01-02-2011	2,208.31	6,512.73	5,624.92	(887.81)*	1-6-2011

* Revised to Rs.928.62 crore vide order No.RP9 of 2011 dated 21-11-2011

The revenue gap of Rs. 556.46 Crore for the year 2003-04 arrived at by the Commission was recommended to be bridged by way of exemption from payment of Electricity duty amounting to Rs.182.56 Crore and by availing a subsidy of Rs. 375 Crore from Government. The revenue gap for the year 2004-05 was to be filled up by exemption from paying electricity duty under Section 3(1) and Section 4 of Kerala Electricity Duty Act, 1963 to the tune of Rs.200 Crore and by providing the balance amount of Rs.96 Crore by way of revenue subsidy by Government.

The truing up petition for 2003-04 & 2004-05 filed by the Board was disposed of together by the Commission by allowing an amount of Rs.360.06 Crore. This was adjusted against the revenue surplus of Rs.329.73 Crore arrived at in the ARR&ERC for 2007-08 resulting in a net deficit of Rs.30.34 Crore for 2007-08. Based on the petition filed by the Board for revision of tariff, the Commission in the order dated 26-11-2007 revised the tariffs with effect from 1-12-2007. The increase in revenue due to tariff revision was estimated as Rs.69.79 Crore for a full year and Rs.23.26 Crore for the balance four months of 2007-08.

Against the revenue surplus of Rs.184.64 crore fixed in 2006-07, the Commission directed the Board to file tariff revision proposal, however, the Board did not file the same. The Commission finalized truing up for the year 2005-06 by approving the revenue surplus of Rs.181.36 crore, which was adjusted against the revenue gap of Rs.335.30 crore approved for the year 2009-10. The Commission directed the Board to file appropriate proposals for tariff rationalization for 2009-10 and accordingly KSEB filed a tariff petition on 24-07-2009, for an additional revenue of Rs.150.86 crore on a yearly basis. Other major highlights of the proposal were (a) introduction of non-telescopic tariff for domestic consumers with monthly consumption above 200 units, (b) 15% & 20% increase in demand and energy charges respectively for HT Commercial class, (c) 25% increase in tariff for Bulk supply (BST) to Licensees and (d) reduction to the tune of 10% of the tariff applicable to Kerala Water Authority (KWA). KSEB also proposed to rationalize the ToD tariff applicable to HT/EHT consumers and proposed a new ToD tariff for LT industrial consumers. The Commission in its order dated 2-12-2009 rejected the proposal on rationalization/revision of tariff proposed by KSEB for LT-I A(Domestic) and HT-IV (Commercial) since the proposals were against the provisions of the Act and would entail a tariff shock for certain group of consumers. Besides, the Commission noticed that on completion of the pending truing up proposals from 2006-07 onwards, the picture of deficit might change. The Commission deferred the proposal on Bulk Supply Tariff of the small licensees. Subsequently, the Commission in its order dated 13-12-2010 increased the energy charges in BST by 15%. The

Commission revised the Time of Day Tariff for HT-EHT consumers to be effective from 1-1-2010. Maximum demand based tariff was introduced for LT Industrial and LT VII (A) & (C) consumers having connected load of 20 kW and above as an optional scheme. With a view to staggering the peak time load demand, an optional Time of Day tariff was also introduced for LT Industrial consumers who have opted for a maximum demand based tariff.

As mentioned above, the approved revenue gap for 2009-10 was Rs.335.30 crore. The same was adjusted against the revenue surplus after the truing up for 2005-06 (Rs.181.36 crore). There were also additional revenue deficits allowed for 2003-04 & 2004-05. The Commission arrived at the provisional revenue gap for 2010-11 as Rs.457.47 Crore. The Commission had finalized the truing up for 2006-07 and arrived at a revenue surplus of Rs.1035.85 Crore. This was adjusted against the revenue gap as follows:

Revenue gap/Surplus and adjustment

	Rs. Crore
Revenue gap for 2009-10	(335.30)
Revenue surplus after True up for 2005-06	181.36
Balance Revenue gap	(153.94)
Additional revenue gap allowed for 2003/04 & 2004/05	(73.87)
Provisional revenue gap for 2010-11	(457.47)
Total revenue gap	(685.28)
Revenue surplus after True up for 2006-07	1035.85
Net surplus	350.57
Add cash subsidy received from the Government	45.97
Less Fuel Surcharge (October 2009 to March 2010)	265.84
Less Fuel surcharge (April 2010 to September 2010)	115.58
Balance available	15.12

The Commission issued the ARR&ERC order for 2011-12 with a provisional revenue gap of Rs.887.81 crore. The Commission has directed the Board to file suitable proposals for bridging the revenue gap. However, the Board did not file the proposal. The Commission has, in the mean time issued the truing up orders for 2007-08 and 2008-09. In the Truing up for 2007-08, the Commission arrived at a revenue surplus of Rs. 1338.93 Crore as against a revenue gap of Rs.91.28 Crore as per the accounts. In the Order on truing up of accounts for 2008-09, the revenue gap arrived at was Rs. 429.62 Crore against a revenue gap of Rs.749.17Crore presented by the Board based on the provisional accounts.

In the ARR&ERC Order for 2011-12, the Commission approved an Aggregate Revenue Requirement of Rs.6512.73 Crore and a total Expected Revenue from Charges of Rs.5624.92 Crore as against Rs.7815.77 Crore and Rs.5607.46 Crore respectively projected by the Kerala State Electricity Board. Accordingly, the Commission arrived at a provisional revenue gap of Rs.887.81 Crore as against the revenue gap of Rs.2208.31 Crore projected by the Board.

In the mean time the Commission has *suo-motu* taken up the issue of disallowing depreciation on the assets created out of contribution and clawing back of such depreciation already claimed by the Board. The Board has filed a review petition for considering the Government's capital in the Board and allowing return there on in the light of Government Order dated 13-12-2010. Regarding depreciation, the Commission in its order dated 13-4-2012, decided that depreciation need not be allowed on assets created out of contributions and grants by any Licensee in the State as a general rule. In the case of KSEB, this will be made applicable from 2010-11 and proposal for clawing back the depreciation already claimed upto 2009-10 is dispensed with. In the case of Return on Equity, pending a decision based on the Consultant's report/the second transfer scheme, the Commission decided to continue the practice of providing returns treating Rs.1553 crore as Government's Capital in KSEB provisionally and the matter will be reviewed later.

Subsequently, the Board has filed review petition on the Order on ARR&ERC for 2011-12 citing many grounds including estimation of hydro generation, O&M expenses etc.. However, the Commission disposed of the petition after correcting the arithmetical mistake in the estimation of employee costs. Accordingly, the approved employee cost was revised by Rs.40.12 crore and thereby increasing the revenue gap for the year to Rs.928.62 crore from Rs.887.81 crore.

The final position of Revenue gap/Surplus position after the ARR&ERC orders and truing up is given below:

Revenue gap/Surplus (Rs. crore)							
	Year	ARR Order	Actual as per accounts	Truing up	Subsidy Adjustment*	Other Adjustment**	Truing up final
Truing up completed	2003-04	(556.00)	-1007.43	-931.32	556.46		-374.86
	2004-05	(296.46)	-342.77	-281.13	222.06		-59.07
	2005-06	(51.31)	-144.57	181.36			181.36
	2006-07	184.62	-142.23	1035.85		-167.42	868.43
	2007-08	329.73	-91.28	1338.93		-186.25	1152.68
	2008-09	(3.93)	-749.17	-429.62		-176.18	-605.80
ARR Orders	2009-10	(335.30)	-1227.51				
	2010-11	(457.47)	-1229.30		45.97	-381.42	-335.45
	2011-12	(928.62)					
	Total	-2114.74	-4934.26	914.07	824.49	-911.27	827.29

* Subsidy Received from Govt/Duty Adjustment

** Rebate given for traders for sale of power adjusted in Review Order on truing up (Rs.18.83 cr. in 2007-08, Rs.8.76 crore in 2008-09)

** Fuel surcharge Adjustment (Rs.381.42 cr.)

** Recognition of adjustment of difference in RoE of Rs.167.42 crore each for 2006-07, 2007-08 & 2008-09, as per the Order dated 13-4-2012.

Adjustments made in different ARR Orders

2007-08 The deficit of Rs.360.60 crore in 2003-04&2004-05 adjusted against the surplus of Rs. 329.73 crore,

2009-10 Deficit of Rs.335.30 cr. was adjusted against surplus of Rs.181.36 crore in 2005-06
2010-11 Balance revenue gap of Rs.153.94 crores for 2009-10, additional revenue gap for 2003-04&2004-05 Rs.73.84 crores, provisional revenue gap of 2010-11 Rs.457.47 crores. Together constitute total revenue gap of Rs.685.28 crore which was adjusted against the revenue surplus after truing up of Rs.1035.85 crores in 2006-07. The balance surplus is Rs.350.57 crore

2010-11 The fuel surcharge of Rs.381.43 crore for two quarters adjusted against the balance revenue surplus of Rs.350.57 crore

1.2 Procedural overview

In the ARR for FY 2012-13, the Board has projected a revenue requirement of Rs.9638.12 Crore and revenue receipts of Rs.6397.87 Crore thereby leaving a revenue gap of Rs.3240.25 Crore as shown below.

Revenue gap proposed for 2012-13

Particulars	2010-11	2011-12	2012-13	
	Actuals	Approved	Proposed by KSEB	Estimates Without Restrictions*
	(Rs. Crore)	(Rs. Crore)	(Rs. Crore)	Rs. Crore
Aggregate Revenue Requirement	6925.16	6553.54	9638.12	10540.93
Revenue from sale of power	5198.52	5234.56	6031.73	5837.71
Non-Tariff revenue	442.74	390.36	366.14	366.14
Total Revenue	5641.27	5624.92	6397.87	6203.85
Revenue Gap	(1,283.90)	(928.62)	(3,240.25)	(4,337.08)

The ARR&ERC proposal of the Board for the year 2012-13 is not under normal conditions. The revenue gap was projected based on the assumption of 15% power restrictions on a conditional basis for the entire year. The Board has estimated that about 50% of consumers will purchase extra energy over the quota at marginal cost and thereby assumed to have additional revenue of Rs.775.94 crore. The Board has provided the estimate of revenue gap under normal conditions (without power restrictions), vide its letter dated 19-4-2012 which is Rs.4337.08 crore ie., about Rs.1100 crore more than the amount given in the ARR&ERC petition. Thus, the ARR&ERC proposal of the Board with power restrictions aims at showing a lower revenue gap than the actual situation.

Even the restricted revenue gap proposed for the year would entail an increase in existing tariff by about 60%. The Board in its petition stated that proposals to meet the revenue gap involves policy directions at the Government level and committed that tariff proposals would be submitted in consultation with the Government shortly. The Board has filed a tariff petition on 30-3-2012 for additional revenue of Rs.1546.40 crore.

The revenue gap proposed by the Board for the year 2012-13 is substantially higher than in the previous years. A comparison of the proposals in the previous years is given below:

Comparison of ARR&ERC proposed by the Board for 2010-11, 2011-12 &2012-13

Items	2010-11 (Actuals)	2011-12 (Approved)	2012-13 (Projected)	Increase over previous year	
	Rs. Crore	Rs. Crore	Rs. Crore	Rs. Crore	%
Generation & Power purchase	3,959.09	3,925.25	5,659.19	1,733.94	30.6%
Interest & Finance Charges	280.91	265.26	521.21	255.95	49.1%
Depreciation	473.43	548.37	607.42	59.05	9.7%
Employee Cost	1,712.80	1,582.11	2,231.46	649.35	29.1%
R&M Expenses	231.85	185.00	326.07	141.07	43.3%
A&G Expenses	174.56	85.74	215.24	129.50	60.2%
Other Expenses	(28.39)	12.00	18.50	6.50	35.1%
Gross Expenditure	6,804.25	6,603.73	9,579.09	2,975.36	31.1%
Revenue gap	1,283.90	928.62	3,240.25	2,311.63	71.3%

The pertinent feature of the present petition is that the revenue gap projected has increased by about Rs.1100 crore, which is about 35% higher than current year estimates. The revenue gap is contributed by overall increase in expenses, which is driven by the Power purchase cost. The total expenses have increased by about

16%. Of the total increase of Rs.1568 crore projected, the power purchase alone contributes to about Rs.970 crore, followed by employee costs and interest and financing charges. Major expenses item have been projected to increase by about 15%. At the outset it can be seen that the increases proposed are much higher than the current levels of inflation. The Commission views this alarming increase with great concern.

1.3 Procedural formalities

After admitting the petition, the Commission sought clarifications on various issues arising from the petition from the Board vide letter dated 11-1-2012. The Board provided its reply on 1-3-2012. The Commission directed the Board to publish the summary of the petition by giving time till 1-3-2012 for providing comments by the Public and stakeholders. The Board published the summary of the petition in the following dailies.

- Keralakaumudi daily dated 5-2-2012
- Deshabimani daily dated 5-2-2012
- The New Indian Express daily dated 4-2-2012
- The Hindu daily dated 5-2-2012

The Commission had placed the petition on its website for the information of the public. The list of persons who filed objections on the petition is shown as Annexure –I. The Commission vide its letter dated 14-3-2012 forwarded copies of objections filed by the public for obtaining reply from the Board. The Board forwarded the reply to the objections which is given as Annexure – II

1.4. Public Hearings

Public hearings on the petition were held at the Kerala Institute for Entrepreneurship Development, Kalamassery on 6-3-2012 and at the office of the Commission on 8-3-2011. The lists of persons who attended the Public Hearings are given in Annexure III(a) and III(b).

In the public hearing some consumers objected to the validity of ARR&ERC filing of KSEB since the petition is not as per MYT format and as per the terms and conditions for determination of tariff for distribution licensees. Objections have also been raised on the absence of proposals for bridging the revenue gap. The objectors have argued that in the absence of such proposals, the petition should be rejected.

The Kerala HT-EHT Industrial Electricity Consumers' Association (*the Association for short*) stated that the Board has filed the ARR&ERC petition with a revenue gap of nearly Rs.3240 crores, which if it is to be recovered from tariff, has to be implemented from 1st April 2012. However, the Board did not propose any tariff revision, even though the regulations provide so. The Association has been insisting that whenever there is surplus or gap, the proposal for adjusting the difference has to be filed along with the petition. Hon. APTEL in its judgment in OP 1/2011 has insisted to have tariff revised from April 1st onwards. They requested the Commission to keep the petition in abeyance till suitable proposals are made for bridging the revenue gap.

Confederation of Consumer Vigilance Centre in their objections mentioned that all the petitions of the Board are not understandable for most of the consumers. Hence while presenting the petitions, the Board has to present the matters in a transparent manner in simple terms.

Shri, Shaji Sebastain, representing the Association of Small Scale Industrial units stated that the Board has not filed the tariff petition and if any amendments are made in the tariff it has to be as per the provisions of the Act. The demand has been increasing in the State mainly due to the addition of new gadgets by the consumers. According to him, the Proposal of power restrictions shall not be implemented.

Shri. K.B Muraleedharan stated that the accounts presented by the Board are inflated. According to him, all the organizations in the Country are improving efficiency and the Board could not do it mainly because it is working as a monopoly organisation. The Board is not taking efforts to improve efficiency but increasing its expenses without control. This inefficiency is passed on as increase in tariff. Such proposals shall not be accepted. Joint Council of Trade Unions, GTN Textiles stated that KSEB should try to reduce expenses to meet the present crises and not by increasing tariff.

The Objections raised by the Association were repeated by M/s HNL, M/s Binani Zinc Limited, Confederation Indian Industry (Kerala State). Carborandum Universal Employees Union, Carborandum Universal Workers Union, Carborandum Universal Employees Association, Carborandum Universal Employees Union, Carborandum Universal Company Thoshilali Union, Sud Cheme Employees Union, Sud Cheme Employees Federation, Employee Unions of Travancore Cochin Chemicals and

Binani Zinc Employees organization. Some other unions and objectors have made specific comments on the proposal of power restrictions.

As counter arguments to the Employee unions and industry association, the KSEB Officers Association made a detailed presentation on the petition of KSEB. Relying on Shri. V.K.Shunglu Committee report, the KSEB Officers Association argued that cost increases and the huge financial deficit in general experienced by the Board is a generic case than a special case comparing the overall situation in India. Based on the analysis of the data presented by the High Level Panel, the Association pointed out that the major reason for financial distress is the burgeoning power purchase cost of distribution utilities. In the case of Kerala, the power purchase and generation costs has increased from Rs.1544 crore in 2004-05 to Rs.5659 crore in 2012-13, where as the energy sales has increased by only 75% only. The reasons for the increase are delicensing of generation, imperfections in the power market, revision of norms by CERC and abnormal increase in fuel cost.

The details of the objections on specific items are dealt under appropriate places in the order.

1.5 Deliberations in the Advisory Committee

The Commission has reconstituted the State Advisory Committee on 10-10-2011. The Commission forwarded the abstract of the petition to the members of the State Advisory Committee and convened a meeting for discussing the petition. The Advisory Committee discussed the ARR&ERC of KSEB for the year 2012-13 in detail in the 24th meeting held on 15-2-2012. The minutes of the meeting of the State Advisory Committee is given as Annexure –IV. The Committee in general expressed concern over the considerably high revenue gap and the increasing power purchase cost. Reasons for the huge revenue gap, which was mainly contributed by the increase in employee cost and power purchase cost, were discussed in detail.

As per para 5(1) of the Kerala Electricity First Transfer Scheme, 2008 issued by Government of Kerala vide Order dated 25-10-2008, all interests, rights in properties, all rights and liabilities of the Board vested in the State Government shall be administered by the Government in the name as 'Kerala State Electricity Board' by appointing a Special Officer and a Managing Committee for this purpose till the date of re-vesting, to be notified by the State Government as provided in sub-section (2) of section 131 of the Act. Considering this, for the purpose of this order, the Commission refers to the 'Government' as 'the Board' or 'KSEB'

After considering all the statutory provisions and going through all the steps envisaged under the Act and the Regulations, after considering the views of the State Advisory Committee, after giving sufficient opportunity to all stakeholders and the Board and considering their views, the Commission has taken the decision on the ARR & ERC of the Board for 2012-13 as detailed in the subsequent chapters.

CHAPTER - 2

OVERVIEW OF THE PROPOSAL ON POWER RESTRICTIONS

2.1 Introduction:

As part of the Petition, the Board has proposed introduction of power restrictions to the tune of 15%. The power restrictions are proposed mainly on the ground that power from comparatively cheaper sources is only sufficient to meet upto 90% of the projected demand. After considering the energy availability from cheap sources such as Hydel, CGS, Traders/exchange, Wind and small IPPs, Board estimated that there would be shortage of about 2078MU or 10.30% of power. If the deficit is met through scheduling liquid fuel stations such as BDPP, KDPP, RGCCPP, KPCL and BSES, the average energy cost would be about Rs.10.29 per unit to Rs.10.77 per unit. In such a situation i.e., the shortage of 2078MU is met from these stations, the additional liability would be Rs.2155.2 crore, which is about 30% of the total ARR projected by KSEB. Hence the Board proposed to introduce restrictions in the following manner:

- (i) HT,EHT, Bulk consumers and Railways will be permitted to consume 85% of the average energy consumption during the previous one year at the normal tariff
- (ii) LT-II, LT-IV, LT- VI (A), VI(B), VI (C), VII (A), VII(B) and VII(C) categories of consumers will be permitted to consume 85% of the average energy consumption during the previous one year at the normal tariff
- (iii) Domestic consumers will be permitted to consume upto 300 units per month at the normal tariff
- (iv) The consumers will be allowed to consume energy over and above the aforesaid regulated quantum on payment of actual cost of additional power purchase / generation from liquid fuel stations based on the marginal cost principles.
- (v) LT-V Agriculture, LT-VI(D) Orphanages and public lighting are proposed to be exempted from such regulations.

The regulation on power supply to consumers is intended to limit the dependence on liquid fuel stations and tariff shock to the consumers. Through restrictions on an year round basis, KSEB projects that the consumers will avail power at 85% of the demand at normal tariff and expects about 7.5% of the demand at marginal cost of

liquid fuel stations. This would reduce the demand by about 7.5% and consequently result in reduction in dependence on liquid fuel stations. The regulation would limit the dependence on liquid fuel stations by about 1200 MU, of which 865MU will be to meet the anticipated excess consumption over the regulated quantum of consumption at normal tariff. The additional revenue expected would be about Rs.775 crore.

2.2. Objections of Stakeholders:

The proposal on power restrictions was severely objected to by the stakeholders mainly on the ground that it would exclude substantial section of the domestic sector and will result in tariff shock to other consumers. The Southern Railways represented by the Chief Engineer, Shri. B.V Chandrasekhar presented their objections on the proposal of power restrictions mainly on the grounds that the proposal will increase the per unit cost of electricity for railways since, the railways cannot reduce the traction consumption to 85% limit. According to the estimates, there will be an increase of 55.55% in the average cost i.e., average cost will increase from Rs.4.05/unit to Rs.6.30/unit. The Railways has argued that the Commission has to determine tariff considering the purpose for which electricity is required as per Section 62(3) of the Act. The marginal costing principle is not relevant to railways since load profile cannot be altered as train services cannot be curtailed or stopped to limit the consumption of electricity. The Commission has already considered the unique nature of the traction load and exempted it from ToD tariff. The Railways have also mentioned the example of Tamil Nadu where, railways were exempted from the purview of load restrictions. They submitted that since the Board has failed to submit the comprehensive tariff revision proposal, the Commission may exercise the *suo-motu* powers to initiate tariff revision proceedings immediately. They requested to reject the illogical, imprudent and arbitrary proposal of KSEB to impose power restrictions.

According to Shri. A.R Satheesh, Carboramdam Universal Limited, the impact of 15% restrictions on EHT consumers will be a tariff increase of 39.31% i.e., the energy cost will increase by about Rs.1.14 per unit. The annual impact on an EHT consumer having consumption of 10 lakh unit will be about Rs.137 lakhs. Similarly, for HT consumer, the impact would be about 37.5% or an increase of Rs.1.12 per unit. The annual impact would be Rs.135 lakhs, for a unit having consumption of 10 lakh units. According to him the 15% restrictions actually translate to 20% since current year growth in consumption is not considered. According to him if the cost of supply is increased it should be addressed through a tariff petition and not through

power restrictions which is an indirect way of tariff hike. He further pointed out that the proposal on power restrictions is discriminatory and against the provisions of the Act. It is an indirect tariff revision for industries, which should not be encouraged.

M/s Binani Zinc also objected to the power restrictions. According to them legally, exempting domestic consumers having monthly consumption below 300 units is against the provisions of the Electricity Act and National Electricity Policy. The reason for proposing power restrictions instead of imposing power cuts is to extract additional Rs.800 to Rs.900 crore from consumers. M/s Binani Zinc mentioned that there is no need for imposing power restrictions and shortages of short durations can be met from generation from liquid fuel stations.

Shri. Jose Mathew contended that the proposal of the Board on power restrictions is illogical and it penalises the consumers who have practiced energy conservation measures. According to him instead of linking quota with previous year consumption, a fixed percentage based on connected load or other parameter may be fixed for the current year so that there will be an incentive for reducing the consumption. According to him fixing consumption limit based on connected load will encourage long term savings in electricity.

M/s Travancore Titanium Products Limited in their objections mentioned that the proposal of power restrictions shall not be allowed. If the proposal of power restrictions is accepted, the tariff increase would be 30%. Same opinion is expressed by Titanium General Labour Union.

M/s MRF limited argued that power restrictions shall not be allowed. The proposal will result in the average cost increasing to Rs.4.82 per unit from Rs.3.52 per unit, which will render the operations economically unviable. Another concern expressed by the M/s MRF is that the proposal will have negative effect on the energy conservation efforts.

M/s Hindustan Newsprint Limited in their objections on power restrictions stated that the average increase in per unit cost is Rs.1.3/unit, which is high. Hindustan Newsprint Officers Association stated that power restrictions will result in about Rs.8.5 Crore additional expenditure on the industry, which will severely affect the survival of the industry. The Commission may adopt a general tariff increase as per the Electricity Act and Tariff Policy instead of imposing the power restrictions. HNL Employees Joint Trade Union Council mentioned that the additional burden due to the proposal of power restrictions will be about Rs.5 lakhs.

M/s Cochin Shipyard Limited estimated that the additional burden will be about Rs.40 lakhs per month, which is about 45% of the present monthly charges. Hence they requested that the Commission should reject the proposal

The Telk employees Union and Telk Workers Congress also requested not to increase the tariff as proposed by KSEB. M/s HOCL stated that due to power restrictions the additional burden will be Rs.26 lakhs per month. The HOCL Joint Trade Union Forum also endorsed the view. M/s Western India Plywoods Limited stated that there is no pressing requirements for introduction of power restrictions. The additional impact on the unit on account of power restrictions is estimated as Rs.16 lakhs per month.

According to Shri. Ravi, Chalakudy Puzha Samrakshana Samiti, introduction of power restrictions with the aim of reducing the consumption is acceptable. However he has pointed out that those who have reduced the consumption in the previous years through energy efficiency and conservation measures should be exempted from imposing power restrictions. Further domestic consumers having consumption between 200 to 300 units per month should also be part of the restrictions. According to him, considering the increase in cost of power, a moderate tariff increase needs to be imposed.

The KSEB Officers Association mentioned that the power restrictions proposed by KSEB will result in reducing tariff shock to a sizeable number of consumers, in ensuring availability of power to those who are ready to pay and in promoting energy efficiency measures.

M/s KDHPCL, a licensee of the Commission, in their response to the proposal on power restrictions mentioned that the power consumption is not uniform for every month and it is highly fluctuating based on vagaries of weather conditions. Hence if a fixed ceiling is adopted for all the months then the lower consumption in one month may be allowed to be carried forward for subsequent months. If this proposal is cumbersome, then the company suggested that adjustments may be done on a yearly basis

M/s KPUPL, another licensee of the Commission has also strongly objected to the proposal of power restrictions on their consumers. According to them, LT industrial consumers' bill will increase by 46% and a general tariff increase of less than 20% will be a more suitable proposition than having power restrictions.

Some of the consumers have opposed the defective logic of the present model of power restrictions taking the previous year average for fixing the quota. The firms practicing energy efficiency measures, thereby reducing the consumption will be adversely affected which will give wrong signals for energy conservation. The Commission is of the view that this point is also to be considered while introducing restrictions in future.

2.3 Analysis and decision of the Commission on power restrictions:

The Commission has examined specifically the proposal of the Board and the objections of the consumers regarding power restrictions. The consumers have strongly objected to the proposal of KSEB for introducing the power restrictions. Major objections were against targeting few sections of consumers and sparing a substantial section of the consumers from the impact of restrictions in an unfair manner. The power restrictions also have a severe impact on the power bills of the consumers, which will result in an overall increase of about 40 to 45%. The stakeholders opined that the proposal of power restrictions is a backdoor tariff increase and if there is a genuine increase in costs, it has to be met through a general revision of tariff as per the provisions of the Electricity Act 2003.

The Commission concurs with the views expressed by the stakeholders on many counts. It is a fact that the dependence on liquid fuel based energy and cost of marginal energy has increased substantially. There has also been increases in other cost elements such as O&M & financing expenses. The Commission is of the view that the present petition of the Board is not a straight forward ARR&ERC proposal, but a petition with an embedded tariff revision. It is expected that the ARR&ERC petition should fairly bring out the expenses and revenue expected for the ensuing financial year. The Board should have presented the ARR&ERC petition in a manner which reflects the reasonable level of expenses for meeting the projected demand and the revenue expected out of such operation, which will provide a reasonable view of the revenue gap and the present financial position of the Board. The power restrictions could have been presented as a separate proposal for managing a critical power situation. The present proposal underestimates the expenses, overestimates the revenue, thereby showing a comparatively lower revenue gap, which does not present a reasonable view of the present situation.

The Commission had previously on two occasions allowed KSEB to introduce power restrictions: in 2008-09 and in 2010-11. On both these occasions, the Board filed separate petitions citing critical reasons such as accidents at the major power stations, drastic reduction in availability of power from CGS, increase in cost of liquid

fuel due unprecedented increase in international crude oil prices etc., The Commission had allowed these petitions with modifications considering the power situation existing then for a short period. However, the present proposal of power restrictions as a part of ARR&ERC petition proposes year round restrictions with an inbuilt tariff hike. The Commission is of the view that any kind of tariff increase should be through a proper tariff petition after considering the ARR&ERC under a normal situation. Hence, the ARR&ERC petition, in the present form is a skewed one, does not provide a fair view of the financial position of the Board under normal circumstances. Growth in the power sector is vital to the economy and as the dominant player in the Power Sector of the State, KSEB should have definite plans to strengthen the sector rather than taking a restrictive approach. In fact in the ARR&ERC exercise, the utility should have presented a plan for meeting the full requirement of its consumers with suggestions of matching resources to meet that requirement. The Commission looks with concern this retrograde approach. The revenue gap estimated by the Board in a normal situation (without power restrictions) as shown below:

Modified Revenue gap in 2012-13 in normal scenario

Items	2012-13	
	As per the Original ARR with proposed regulations	Under Normal conditions without regulations
	(Rs. crore)	(Rs.crore)
Generation of Power	378.10	378.10
Purchase of power	5,281.09	6,183.90
Interest & Finance Charges	521.21	521.21
Depreciation	607.42	607.42
Employee Cost	2,231.46	2,231.46
R&M Expenses	326.07	326.07
A&G expenses	215.24	215.24
Other Expenses	18.50	18.50
Gross Expenditure (A)	9,579.09	10,481.90
Less: Expenses Capitalized	47.09	47.09
Less: Interest Capitalized	134.6	134.60
Net Expenditure (B)	9,397.40	10,300.21
Return (C)	240.72	240.72
GROSS ARR (D) = (B) + (C)	9,638.12	10,540.93
Less Non-Tariff income (E)	366.14	366.14
Net ARR (F)= (D)-(E)	9,271.98	10,174.79
Revenue from sale of Power	5255.79	5,837.71
Additional Revenue	775.94	
Total Revenue	6,031.73	5,837.71
Revenue Gap	(3,240.25)	(4,337.08)

As estimated above, the probable revenue gap at normal conditions would have been Rs.4337.08 crore instead of Rs.3240 crore projected by the Board. Hence, the revenue gap was projected to be reduced by 25% by proposing power restrictions.

Based on the analysis of the situation, the Commission is of the view that proposing power restrictions for the complete year as part of the ARR&ERC petition cannot be accepted. As contended by many objectors, it amounts to an indirect tariff increase. If the expenses have increased over the revenue, the same has to be met with a general tariff revision proposal and not through a power restriction proposal. It is surprising to note that the Board has not thought about power restrictions for any specific period in 2011-12, notwithstanding the high prices and shortages. **Thus, the power restrictions proposed by KSEB for the whole year 2012-13 as a general measure as part of the ARR&ERC petition is rejected.**

CHAPTER - 3

ENERGY SALES PROJECTIONS

3.1. Sales projections

The Board has projected the energy sales for the year 2012-13 based on the past trend, existing consumer strength and the expected yearly growth, increasing consumption per consumer, regional characteristics, seasonal variance, change in consumer habits etc. The projections were made based on the sales data from 2005-06. According to the Board, average sales growth in the State is about 7.21% from 2005-06 onwards. In 2009-10, the increase was 12.54% over the previous year where as the growth in 2010-11 is 4.13%. According to the Board, the retardation of growth in 2010-11 is due to the demand side management efforts taken by the Board through following measures:

- With the support of the Government about 1.30 crores incandescent bulbs were replaced by CFL.
- Consumer awareness program on energy conservation through print and visual media.
- Widespread monsoon received during the year 2010-11.
- 10% power restriction imposed during the months of April and May-2010.

Board in their petition stated that the estimate of consumption for the year 2011-12 has to be revised since there is appreciable increase in consumption during the year. The reason attributed to the increase is that there is no restrictions in the use of power in the current year and also due to the changes in consumer preferences. Further, the quality of supply has been increased in the current year. These may result in increase in consumption. According to KSEB as against the original estimate of 6.34% increase, the revised estimate would be 9.62%. The energy sales thus, expected in 2011-12 is 15947MU instead of 15600 MU estimated by the Board and approved by the Commission earlier.

For the ensuing year (2012-13), the Board has proposed to give 3.5 lakh connections. Considering the past growth of sales, and energy conservation measures proposed to be initiated, the average growth expected is 7.48%. Accordingly, the energy sales at normal growth would be 17140MU. The estimate of sales for 2012-13 given by the Board is as shown below.

Energy sales Estimated by the Board for 2012-13 (in MU)

Category	2010-11	2011-12(Revised)		2012-13(Projected)	
	Actual MU	MU	(%) increase	MU	(%) increase
Domestic	6877.83	7622.90	10.83	8224.00	7.89
Commercial	1951.74	2160.00	10.67	2364.00	9.44
Industrial	1053.45	1123.00	6.60	1194.00	6.32
Agricultural	231.56	243.00	4.94	247.00	1.65
Street Lights	265.68	280.00	5.39	299.00	6.79
LT II	0.00	16.10		19.00	18.01
LT Total	10380.26	11445.00	10.26	12347.00	7.88
HT I Industrial	1516.01	1610.00	6.20	1680.00	4.35
HT II Non Industrial Non Commercial	101.71	116.00	14.05	130.00	12.07
HTIII -Agriculture	8.00	8.00	0.00	9.00	6.25
HT IV- Commercial	756.21	866.00	14.52	980.00	13.16
EHT 66KV	341.17	377.00	10.50	405.00	7.43
EHT 110KV	839.95	890.00	5.96	930.00	4.49
Railway Traction	156.39	156.39	0.00	160.00	2.31
Bulk	448.10	479.00	6.90	499.00	4.18
Total	14547.89	15947.49	9.62	17140.00	7.48

Though the energy demand for the year 2012-13 based on previous year data and other parameters is estimated as 17140MU, the Board proposed to introduce power restrictions for most of the categories except LTV, LT VID and public lighting categories so as to limit the dependence on liquid fuel generating stations. Accordingly, the regulation applicable will be 15% ie., for the categories applicable for regulation will be permitted to use up to 85% of the previous year average consumption under normal tariff and any consumption above the limit will be charged at marginal rates of power purchase. In such a situation, the Board expects that 7.5% of the previous year consumption may be consumed over and above the consumption at normal rates. As per the estimates of the Board, there will be a reduction of energy sales of about 0.98 MU per day (358MU per year) from HT-EHT consumers after the regulation and about 265MU from LT categories except domestic consumers. In the case of domestic consumers, the expected reduction over the normal projection will be about 124MU. By this proposal the Board expects that 752MU will be consumed at the rate of marginal cost.

3.2 Objections of stakeholders:

Regarding energy sales forecast, the HT-EHT Association stated that demand forecast is a primary task for any business entity aspiring continuity and prosperity, however, the Board is not giving required importance for long term demand forecast.

As per section 39(2)(b) & 42(1), the licensees are duty bound to plan and develop co-ordinated systems. The Commission in its several orders mentioned the necessity of having a robust database and forecast by the licensee. According to the Association, the lack of planning by the Board resulted in the power crisis in the State. The Association has objected to the sales forecasts of the Board. The average increase in sales over the previous years is only 800MU, where as the Board has come out with demand growth of about 1400MU and 1192MU respectively for 2011-12 and 2012-13, mainly to push for power restrictions. By analysing the consumer category wise projected and actual sales in the previous years, the Association pointed out that there is wide variation in the projections, though the total may be reasonably accurate. According to the Association, the sales shall be based on CAGR of previous years. Accordingly the Association projected sales of 16735MU for 2012-13 considering the CAGR of 7.25%.

Association's objections were repeated by M/s HNL, M/s Binani Zinc Limited, Confederation Indian Industry (Kerala State). Carborandum Universal Employees Union, Carborandum Universal Workers Union, Carborandum Universal Employees Association, Carborandum Universal Employees Union, Carborandum Universal Company Thoshilali Union, Sud Cheme Employees Union, Sud Chemi Employees Federation, Employee Unions of Travancore Cochin Chemicals, Binani Zinc Employees organisation etc.,

3.3 Analysis of the Commission

As per the estimates of KSEB, the energy consumption will grow at a rate of 7.48%. The projections are influenced by the higher current year estimated demand of about 9.62% over the previous year (2010-11). Considering the limited availability of 'low cost power', the Board proposed to introduce power restrictions to the tune of 15%, and expects that consumers will consume additional 7.5% at marginal costs. The Commission is of the view that compared to the previous year, there has been increase in consumption during the current year. According to the Board, the reason for increase in the current year is the absence of power restrictions. Considering the high cost of power required to meet the additional demand, there is a need to moderate the energy demand by employing conservation and energy efficiency measures. The Commission in the previous order has given following directions:

*The Commission is of the view that in view of the increasing cost of power to meet the demand, KSEB has to initiate active programmes for demand side management (DSM) and energy conservation. **The Commission is***

planning to provide adequate allocation for campaigning and initiatives for such programmes. At the national level, Bureau of Energy Efficiency is also envisaging energy conservation programmes on a massive scale. DSM activities are to be undertaken more effectively by KSEB in tandem with State Agency for Energy conservation (Energy Management Centre). Special attention is to be provided for reducing peak load during evening thereby increasing the system load factor.

The Board is directed to submit proposals for extending the TOD metering to more sections of consumers and for appropriately modifying the differentials in the charges in the different time zones. This has to be programmed as a DSM activity thereby sending signals to more consumers to shift part of their load to off peak hours or normal hours from peak hours.

The Commission is of the view that these efforts would significantly lead to moderation of energy demand during evening peak thereby reducing stress on the system during this time zone.

In response to the above, the Board in its letters dated 3-11-2011 and 17-11-2011 reported that as part of DSM activities launched a programme known as 'Nalekkithiri Oorjam', a programme for improving awareness on energy conservation among school students in co-ordination with Energy Management Centre and Education Department. Around 2380 schools and 1,23,546 students have been enlisted in the programme.

Though it can be commented that a programme involving school children has been initiated, it is evident that there is no concerted effort gone in to the DSM activities. It shows that the Board did not take adequate steps in 2011-12 as directed by the Commission to moderate the demand. The previous experiences show that there is a possibility of reducing energy consumption through effective DSM measures. Further a long term view of the energy demand needs to be considered in this context. As shown in the table below, the compounded growth rate from 2003-04 to 2010-11 shows that there is flattening of demand though occasional increases are visible in the intermittent years.

Compounded Annual Sales Growth rates for different periods

	2003-04 to 2010-11	2004-05 to 2010-11	2005-06 to 2010-11	2006-07 to 2010-11	2007-08 to 2010-11	2008-09 to 2010-11	2009-10 to 2010-11
LT Category							
Domestic	8.0%	8.3%	8.1%	7.2%	7.1%	7.7%	4.9%
Commercial	12.1%	12.8%	12.3%	11.9%	12.3%	14.0%	8.9%
Industrial	4.9%	5.1%	3.8%	3.0%	2.3%	1.9%	-1.0%
Agricultural	2.0%	3.3%	4.1%	1.3%	0.1%	1.5%	-9.7%
Street Lights	6.9%	6.4%	5.0%	3.7%	2.1%	-5.1%	-12.5%
Sub total LT	8.1%	8.5%	8.1%	7.3%	7.1%	7.6%	4.0%
HT category							
HT I	4.4%	3.4%	2.2%	1.4%	1.2%	6.9%	4.6%
HT II	-3.4%	-5.3%	-4.7%	-6.8%	-9.6%	-2.4%	-12.8%
HT-III	-1.3%	-1.5%	-3.9%	-2.3%	-3.1%	-4.5%	2.5%
H- IV	13.9%	14.3%	14.9%	15.1%	14.2%	14.3%	9.1%
EHT 66/110	0.9%	2.2%	3.3%	2.5%	4.9%	10.6%	2.8%
Railway Traction	19.1%	23.5%	21.9%	21.3%	12.7%	4.8%	-5.5%
Bulk Supply	13.2%	13.3%	8.6%	7.5%	7.9%	18.9%	8.5%
Sub total HT	5.3%	5.5%	5.2%	4.5%	4.9%	10.0%	4.3%
Total	7.3%	7.6%	7.2%	6.4%	6.5%	8.3%	4.1%

The above trend could also be due to the stabilization of demand considering the near complete electrification and tapering industrial demand. However, increasing consumerism of the State, remarkable growth of the commercial sector, hospitality business, high end health care facilities, and access to disposable income by a sizable segment of the population cannot be overlooked. Hence, a long term view on the increase in energy demand needs to be realistically assessed. The current year growth which is due to the visible increase in domestic and commercial sector is to be seen in this background.

Annual growth rate of energy sales

Category	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 (estimated)
LT Category								
Domestic	6.44%	9.53%	11.68%	7.48%	5.85%	10.59%	4.86%	11.06%
Commercial	7.85%	15.30%	14.00%	10.59%	9.00%	19.37%	8.87%	10.66%
Industrial	4.26%	11.62%	6.86%	5.35%	3.15%	4.83%	-1.03%	6.65%
Agricultural	-5.45%	-0.52%	15.79%	5.00%	-2.60%	14.22%	-9.73%	4.74%
Street Lights	10.24%	13.66%	10.10%	8.73%	18.07%	3.06%	-12.54%	5.66%
Sub total LT	6.10%	10.46%	11.50%	7.69%	6.18%	11.25%	4.05%	10.26%
HT category								
HT I	10.04%	10.02%	5.43%	1.74%	-9.24%	9.35%	4.55%	6.20%
HT II	8.46%	-7.80%	3.85%	2.22%	-22.46%	9.35%	-12.82%	13.73%
HT-III	0.00%	11.11%	-10.00%	0.00%	0.00%	-11.11%	2.50%	-2.44%
H- IV	11.51%	11.50%	14.02%	17.63%	14.20%	19.69%	9.09%	14.55%
EHT 66/110	-6.41%	-3.09%	6.57%	-4.30%	-5.66%	18.94%	2.79%	7.28%

Railway Traction	-4.35%	31.82%	24.14%	51.39%	30.28%	16.20%	-5.45%	0.25%
Bulk Supply	12.77%	39.62%	13.18%	6.57%	-11.20%	30.28%	8.47%	6.92%
Sub total HT	3.75%	7.25%	7.72%	3.35%	-4.41%	15.93%	4.31%	8.04%
Total	5.33%	9.43%	10.31%	6.35%	3.01%	12.55%	4.12%	9.63%

The pattern of energy input and sales also confirm the above. The Commission is of the view that had the Board taken adequate conservation efforts, the demand would have been manageable levels as evidenced from experience. The estimated increase in the current year is considerably higher except for the year 2006-07 (2009-10 is because of a lower base year of 2008-09, a year of severe restrictions).

Annual increase in Energy sales and Energy input

Year	Energy Sales	Annual increase		Energy input	Annual increase	
	(MU)	(MU)	(%)	(MU)	(MU)	(%)
2003-04	8911			12,281		
2004-05	9384	474	5.3%	12,505	224	1.8%
2005-06	10270	885	9.4%	13,331	826	6.6%
2006-07	11331	1,061	10.3%	14,428	1,097	8.2%
2007-08	12050	719	6.3%	15,065	637	4.4%
2008-09	12414	364	3.0%	15,294	228	1.5%
2009-10	13971	1,557	12.5%	16,978	1,685	11.0%
2010-11	14548	577	4.1%	17,338	360	2.1%
2011-12	15947	1,400	9.6%	18,887	1,549	8.9%

Considering the above, there shall be sustained efforts for regulating the consumption growth through conservation measures. The Board may submit a detailed proposal on **energy conservation within three months**. The agencies such as EMC may be associated for preparation and execution of such proposal. The Commission expects that by initiating appropriate DSM activities, the consumption of electricity in the State can be curtailed. Introduction/extension of ToD metering shall help flattening the load curve, thus reducing peak demand pressures. Time of use pricing of electricity has universally been accepted as an effective DSM tool. **The Board shall immediately extend the ToD metering to more sections of LT consumers.**

By appropriate price signals, the Commission expects that unrestrained and luxurious consumption will come down. It is also generally agreed that major industrial consumers have no incentive for reducing Specific Energy consumption due to comparatively low tariffs. This situation has to change.

The Commission is of the view that energy demand may be limited to the level as projected by the Board ie., 16386 MU for the year 2012-13, through concerted efforts rather than through year round restrictions. The Board has already filed a tariff petition for revision of existing tariffs. The revision will have an impact of moderating the demand growth at least for a short term. The Commission has also allowed to implement power restrictions for HT-EHT & LT consumers for April and May 2012 and load shedding in 11kV feeders. Thus, there is every possibility that the energy demand can be moderated in 2012-13. By taking all factors into consideration, the Commission approves the energy sales for the year 2012-13 as 16386MU as shown below:

Approved Energy sales for 2012-13

Category	Actuals (MU)		Approved (MU)	Projected by the Board (MU)		2012-13 Approved	Average annual growth over 2010-11
	2009-10	2010-11	2011-12	2012-13 (unrestricted)	2012-13 (Restricted)		
LT Category							
Domestic	6559	6878	7460	8243	8116	8116	8.63%
Commercial	1793	1952	2104	2364	2187	2187	5.85%
Industrial	1064	1053	1119	1194	1104	1104	2.41%
Agricultural	257	232	260	247	247	247	3.18%
Street Lights	303	265	307	299	299	299	6.22%
Sub total LT	9976	10380	11249	12347	11953	11953	7.31%
HT category							
HT I	1450	1516	1572	1680	1554	1554	1.25%
HT II	117	102	119	130	120	120	8.58%
HT-III	8	8	8	9	8	8	-2.10%
H- IV	693	756	822	980	907	907	9.50%
EHT 66/110	1149	1181	1196	1335	1235	1235	2.26%
Railway Traction	165	156	170	160	148	148	-2.60%
Bulk Supply	413	448	463	499	462	462	1.51%
Sub total HT	3995	4167	4350	4793	4433	4433	3.14%
Total	13971	14547	15600	17140	16386	16386	6.13%

CHAPTER – 4

REVIEW OF CAPITAL EXPENDITURE

4.1. Introduction

The Board in the petition stated that finalization of the capital projects under the 12th plan (2012-13 to 2016-17) is under progress. As soon as it is finalized the same will be placed before the Commission. The details of capital projects proposed in generation and transmission including the revised estimate for 2012-13 is given in the present petition. The details of distribution plan will be provided by the end of January 2012. The total capital expenditure plan for the year 2011-12 is revised upwards to Rs.1189.27 crore from Rs.1036 crore. The progress upto November 2011 is Rs.451.69 crore. The revised estimate of capital expenditure for 2011-12 and proposed capital expenditure for 2012-13 are given below:

Revised Capital Outlay for the year 2011-12 and proposal for 2012-13

Particulars	2011-12			Proposed outlay for 2012-13
	Target	Achievement till Nov '11	Revised outlay	
	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)
Generation	308.28	132.89	383.67	427.38
Transmission	254.85	104.47	253.00	305.00
Distribution	444.00	213.35	540.00	710.00
Others	28.87	0.98	12.60	6.50
Total	1036.00	451.69	1189.27	1448.88

The progress for the current year given by the Board is about 45% till November 2011. The Commission in its letter dated 6-1-2012, directed the Board to file the detailed capital expenditure programme as committed in the petition. The Board vide letter dated 6-2-2012 forwarded the capital expenditure programme for generation, transmission and distribution, totalling to an **amount of Rs.1397.12 crore**, in place of Rs.1448.88 crore mentioned in the petition. The reason for variation is the revised reduced outlay by Rs.51.76 crore mainly on generation. The revised allocation for three functions is as shown below

Generation - Rs.375.62 crore
Transmission – Rs.305.00 crore
Distribution – Rs.710.00 crore
Others - Rs. 6.50 crore

The summary of the Capital outlay for Generation projects for the year 2011-12 and 2012-13 is detailed below.

Details of the Capital outlay for Generation projects for 2011-12 and 2012-13

Sl No	Particulars	Revised for 2011-12	Proposed for 2012-13
		(Rs. Cr)	(Rs. Cr)
1	Ongoing projects	188.00	271.15
2	New schemes proposed	12.52	43.85
3	Completed Schemes	5.50	2.30
4	Capital nature of maintenance work at BDPP & KDPP	1.00	5.33
5	Renovation and Modernization of existing hydro projects	3.45	6.25
6	Survey and Investigation,	1.00	1.50
7	Revamping of seismic network	0.10	3.00
8	R&D Civil works	37.00	8.00
9	Construction of Administrative Complexes	5.00	3.50
10	Mechanical Fabrication works	55.00	50.00
11	Coal based power projects	25.00	10.00
*12	Miscellaneous works	50.10	22.50
	Total	383.67	427.38

Details of the ongoing projects under Generation are as below.

Details of ongoing Generation projects

Sl No	Ongoing Schemes	Target date of completion	Revised for 2011-12	Proposed for 2012-13	Remarks
			(Rs. Cr)	(Rs. Cr)	
1	Pallivasal Extension	Dec-2013	70.00	62.00	Overall progress-55%
2	Ranni-Perinad	Jan-2012	18.00	0.25	Overall progress-55%
3	Thottiyar	May-2014	20.00	50.00	Overall progress- 3.92%
4	Sengulam Augmentation	Dec-2013	8.00	15.00	Overall progress- 16%
5	Vilangad	Dec-2012	30.00	25.00	Overall progress-25.02%
6	Chathankottunada-II	Mar-2013	8.00	25.00	Overall progress-3.9%
7	Chimony	Feb-2014	1.10	5.00	Overall progress- 1.60%
8	Poringalkuthu	Sep-2014	1.45	12.20	Work awarded
9	Peechi	Dec-2012	5.65	4.70	Overall progress-16%
10	Perumthenaruvi	Mar-2014	6.00	15.00	Work awarded
11	Barapole	Mar-2013	15.50	35.00	Overall progress-25.81%
12	Kakkayam	Mar-2013	2.10	10.00	Overall progress- 3.6%
13	Anakkayam	Mar-2016	1.50	4.00	Work awarded, Agreement yet to be executed
14	Vellathooval	June-2014	0.70	8.00	Work order to be issued
	Total		188.00	271.15	

The details of the proposed projects are detailed below.

Details of new generation projects proposed

Sl No.	Name of the project	Capital out lay for the year 2012-13	Remarks
1	Adyanpara	9.00	Tender to be finalized
2	Olikkal (4.5 MW, 10.18 MU)	1.50	To be tendered
3	Poovaramthode (2.70 MW, 5.88 MU)	1.30	To be tendered
4	Chembukadavu-III (6 MW)	0.50	Pre-construction survey in progress
5	Peruvannamoozhi (2 x 3 MW)	0.50	Pre-construction survey completed
6	Upper Kallar (2 MW, 5.14 MU)	1.00	To be tendered
7	Peechad (3 MW, 7.70 MU)	0.50	Pre-construction survey in progress
8	Western Kallar (5 MW)	0.50	DPR under preparation
9	Chinnar (24 MW, 76.45 MU)	0.50	Pre-construction survey completed
10	Pazhassi Sagar (15 MW)	0.50	DPR approved, Preconstruction survey to be started
11	Ladrum (3.5MW)	0.50	Preconstruction survey to be started
12	Upper Sengulam (24 MW)	0.50	DPR under preparation
13	Marmala (7MW)	0.50	DPR under preparation
14	Mankulam (40 MW, 82 MU)	15.00	Tendering stage
15	Chathankottunada-I (4.5MW)	0.10	DPR under preparation
16	Athirappally (163 MW)	0.10	Legal Dispute
17	Achankovil (30MW)	8.00	EIA study under progress
18	Vakkallar (24 MW)	3.00	EIA study under progress
19	Thumboormuzhy (7MW)	0.20	Pre-construction survey in progress
20	Koodam (4.5 MW)	0.05	Pre-construction survey in progress
21	Pambar (40 MW)	0.10	EIA study under progress
	Total	43.85	

The revised target for the transmission works for the year 2011-12 and the target for the year 2012-13 is detailed below.

Summary of the transmission substations and Lines

Particulars	2011-12		Target for the year 2012-13
	Target	Achievement upto Sep-2011	
Substations	(Numbers)		
220 kV	2	Nil	2
110 kV	13	3	11
66 kV	4	Nil	5
33 kV	20	6	14
Sub total	39	9	32
Lines	(Kilometers)		
220 kV	94.2		47.1
110 kV	68.0	1.8	162.8
66 kV	5.0		5.3
33 kV	302.0	51.1	145.5
Sub total	469.2	52.9	360.7

The Board has also given a detailed list of transmission projects covering the major details such as date of commencement, target date of completion, project cost, allocation for the year etc., as part of additional details. Though the Board has stated in the petition that the item wise details of the transmission substations and lines including cost-benefit analysis of the transmission project will be submitted along with the Annual Plan by the end of January-2012, the same was so far not submitted.

Revised targets for distribution works for the year 2011-12 and the target for the year 2012-13 are given below.

Summary of the Distribution works

Distribution Work	2011-12		Target for the year 2012-13
	Achievement till Sep '11	Revised target	
Service connections (lakhs)	1.95	3.32	3.5
11 kV Line extension (km)	1263	4843	3500
Transformer installation (Nos.)	2252	5451	4500
LT Line extension (km)	2135	2863	5000
1-ph to 3-ph Conversion (km)	2519	7641	6000
Conductor changing (km)			2250
Faulty meter replacement (lakhs.)	4.09	9.44	6.5

4.2 Objections of Stakeholders

The Association pointed out that the Board has not submitted the district wise capital expenditure under distribution as promised in the previous year. Further, as per the petition of the 33 substations listed for commissioning in 2012-13, 29 are spill over works, which would have been completed in the previous years. The KSERC (Terms and conditions of Retail Tariff) Regulations provides that , the licensee has to file details of capital assets, with capitalisation schedule, separate listing of projects, and spill over projects and justification of new projects. The Commission is empowered to review and approve the capital expenditure plan. The Association stated that so far such regulatory requirements are not fulfilled. In the absence of data, it is difficult to understand whether the utility actually require such capital expenditure as proposed. Due to the lack of details given by the Board, the Association demanded that interest on additional borrowing for capital expenditure and depreciation on proposed capital expenditure shall not be allowed. The same can be allowed during truing up process after the prudence check. The Association further stated that, considering

the need for the capital investment in the system, as a realistic measure, the maximum capital investment made in the previous years can be allowed. Accordingly Rs.980 crore can be allowed as a provisional figure.

M/s Cochin Minerals and Rutile limited mentioned that the capital investment shown towards the 33 substations listed for commissioning in 2012-13, 29 are spill over works. If this is the situation, the capital expenditure claimed in the previous years is not explained. If the projects are planned properly, there would not have been any transmission constraints.

4.3 Analysis and decision of the Commission

Under Generation, the details given by the Board include details of estimated cost, date of commencement, scheduled date of completion, cumulative expenditure as on 12/2011, and anticipated expenditure for 2012-13. The capital expenditure is proposed under following heads

Ongoing schemes (14 projects)	- Rs.237.19 crore.
New schemes (21 schemes)	- Rs. 35.55 crore
Completed schemes (11 schemes)	- Rs. 2.30 crore
Thermal projects (BDPP/KDPP)	- Rs. 5.33 crore
Renovation & modernisation (4 schemes)-	Rs. 6.25 crore
Survey & investigation , Research etc.,	- Rs. 4.25 crore
Miscellaneous	- Rs. 84.75 Crore
Total	- Rs.375.62 Crore

As per the details furnished by the Board, of the ongoing projects, 3 projects are proposed to be completed in 2013 and 5 in 2014. Of this five projects, three are not yet started and hence the completion date is not realistic. For some projects, expenditure has exceeded the estimated amount. The Board has proposed allocation for new projects (Rs.35.55 crore) which are proposed to start after 2012-13. For some of these schemes, even DPR is not ready. Of the new schemes only three schemes are proposed to start in 2012-13. It is reasonable to conclude that for rest of the projects, allocation is not required in the current year.

It is also pertinent to note the per MW project cost proposed by the Board. It ranges from Rs.2.91 crore to Rs.10.08 crore, depending upon year in which scheduled rate is applicable. Most of the projects for which estimated cost is prepared based on price levels after 2008, **the per MW cost is above Rs.8 crore**. It remains to be seen

whether projects are financially viable. It is also to be noted that the normative cost for **small hydel projects is Rs.5.2 crore/MW** as per regulations of KSERC. As per the latest CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2012, normative capital cost for small hydel projects for the year 2012-13 is given as Rs.5.50 crore/MW for projects below 5 MW and Rs.5.00 crore/MW for projects above 5MW. The normative Capital cost is inclusive of all capital work including plant and machinery, civil work, erection and commissioning, financing and interest during construction, and evacuation infrastructure up to inter-connection point. Considering these standards, the proposed projects of the Board appears to be high and the reasonableness of the same has to be evaluated in detail. In the absence of all project parameters, benefit cost analysis and rationale for the project, prioritisation of projects etc. cannot be arrived at.

Under transmission, the Board has given transmission circle wise capital works relating to substations and lines. However, the date of commencement of each work is not given. The total allocation for the year is Rs.305 crore. Under transmission the gestation period of the projects are lower and almost all projects are expected to be completed in next 2 to 3 years. Though the details of deposit works and works for which cost is realised from consumers are included in the plan, the expenses have not been included under the capital expenditure plan.

The Board has given the details under distribution plan as part of additional details. However, it is noted that the plan is not complete and several discrepancies are noted. Hence reasonable level of capital investment requirements could not be arrived at.

The details given under distribution, are under the heads of *normal category, works for which actual cost is collected from beneficiaries, and works proposed under RGVVY & R-APDRP (Central scheme)*. Of the total Rs.693.33 crore proposed, Rs. 241.54 crore is proposed under normal category, Rs.123.38 crore is under deposit works, and Rs.328.21 crore is under Central scheme (R-APDRP, RGGVY etc.).

It is not clear whether works proposed under normal category is the 'Normal development category (NDC)' and include the works proposed by KSEB using own funds. Under this category (normal category) expenses towards service connection (single/three phase) and line extension etc., are included. As per the orders of the Commission and subsequent orders issued by the Board, providing connections

without recovery of costs is not allowed unless specific schemes with funding plan and eligibility criteria are provided. Works of such nature has to be as per clause 7 of the Kerala Electricity Supply Code.

A comparison of plan given in ARR and the revised scheme is given below

Distribution Work	2011-12	Target for the year 2012-13 Given in ARR	As per Detailed Plan				
	Revised target		Normal category	Consumer contribution	R-APDRP/ RGVVY	Total	Cost
Service connections (lakhs)	3.32	3.5	0.34	1.98	0.17	2.49	11,871.68
11 kV Line extension (km)	4843	3500	1616	119	1078	2812	4,037.32
Transformer installation (Nos.)	5451	4500	1663	417	1693	3773	4,342.21
LT Line extension (km)	2863	5000	345	208	1620	2173	9,997.41
1-ph to 3-ph Conversion (km)	7641	6000	2372	74	1745	4191	75.27
Conductor changing (km)		2250	1577		628	2206	2,288.82
Faulty meter replacement (lakhs.)	9.44	6.5	3.98	0.01	4.96	8.94	11,387.51

As per the details given above and on the preliminary scrutiny, the total capital expenditure for 2012-13 given is as follows

Generation	: Rs. 343.87 crore
Transmission:	Rs. 305.00 crore
Distribution	: Rs .716.50 crore
Total	: Rs. 1365.37 crore

The details provided under the capital expenditure programme especially transmission and distribution are not sufficient to link to the purpose, such as loss reduction, system stability/reliability, load growth etc., though there may be multiple or overlapping benefits. Such details are required to examine the feasibility of the projects. In the absence of realistic studies on the estimates of transmission and distribution losses, it is difficult to link the adequacy of capital expenditure programme. In the absence of complete details on capital investment programme especially in distribution, detailed analysis of the capital expenditure programme for 2012-13 is not made. **However, the Commission will take up the matter separately for the approval of capital projects. The evaluation will cover all aspects of the investment programme in the current year.** However, in the mean time the Commission is required to have an estimate of capital expenditure, which is reasonable to be included as part of ARR&ERC exercise. The capital expenditure proposed and actuals are given in the table below:

Proposed in the ARR	Rs. Crore								
	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2010-11
<i>Capital Expenditure</i>	453.40	459.01	695.21	662.60	924.49	1061.15	1293.00	877.81	23.24
<i>IDC capitalized</i>	115.45	115.73	99.51	53.30	37.11	25.75	27.87	94.10	
<i>Other expenses capitalized</i>	119.25	123.53	158.95	43.90	65.26	59.19	55.82		
Total capital expenses	688.10	698.27	953.67	759.80	1026.86	1146.09	1376.69	995.15	
<i>Expenses transferred to Gross asset</i>	924.65	707.84	905.68	603.33	821.48	912.07	1189.26		
Actuals	(Rs. Crore)								
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2010-11	2010-11
<i>Capital Expenditure</i>	235.36	621.93	357.00	407.82	459.13	296.30	551.76	761.92	857.17
<i>IDC capitalized</i>	101.08	78.11	62.04	48.50	35.13	29.33	22.70	22.45	23.96
<i>Other expenses capitalized</i>	118.15	109.05	42.88	43.61	43.19	48.08	70.74	85.34	95.83
Total capital expenses	454.59	809.09	461.92	499.93	537.45	373.71	645.20	869.71	979.96
<i>Expenses transferred to Gross asset</i>	801.37	968.51	501.42	651.65	505.23	467.70	564.56	935.92	1018.72
Contribution received for cost of capital assets	155.88	185.26	201.23	265.83	216.14	186.47	422.57	449.77	354.58

The actual capital expenditure in the past ranges from Rs.373.71 crore to Rs.979.96 crore. In the absence of realistic investment programme and funding sources, the Commission is of the view that the maximum level of capital expenditure achieved in the previous years can be taken for the purpose of ARR&ERC for the year. Hence for the purpose of the present exercise, the Commission accepts the estimate of capital expenditure for 2012-13 as Rs.980 crore. However, the Commission would point out that the amount specified is not a ceiling figure, and the Board may in its wisdom provide higher estimates and invest more in projects in a prudent manner in 2012-13, and submit sufficient supporting details for approval.

CHAPTER – 5

TRANSMISSION AND DISTRIBUTION LOSS

5.1 Introduction

The internal loss level projected for 2012-13 is 15.32% compared to 15.56% estimated for 2011-12. KSEB in its petition has stated that in between 2001-02 and 2009-10, T&D loss was reduced by 14.67% due to its efforts as shown below.

Loss reduction achieved by the Board

Year	T&D Loss within KSEB system (%)	Extent of reduction (%)	
		Yearly	Cumulative
2001-02	30.76		
2002-03	29.08	1.68	1.68
2003-04	27.44	1.64	3.32
2004-05	24.95	2.49	5.81
2005-06	22.96	1.99	7.80
2006-07	21.47	1.49	9.29
2007-08	20.02	1.45	10.74
2008-09	18.83	1.19	11.93
2009-10	17.71	1.12	13.05
2010-11	16.09	1.62	14.67
2011-12 (Estimate)	15.56	0.53	15.20
2012-13 (Projection)	15.32	0.25	15.45

In the petition, the Board claimed that in 2010-11 loss reduction of 1.62% was achieved by the Board through the following efforts:

- Faulty meter replacement: KSEB had replaced 10.21 lakhs faulty meters during the year 2009-10 and 7.10 lakhs faulty meters during the year 2010-11 with good quality meters.
- Reduction in peak demand and energy consumption through DSM activities:
 - About 1.30 crore incandescent bulbs were replaced by Compact Fluorescent Lamps. This has reduced the peak demand considerably.
 - Consumer awareness program through print and visual media.
- KSEB has added 3398 km of 11 kV lines and 7837 km of LT lines during the year 2009-10. Further, KSEB has added 3644 km of 11kV lines and 6978.69km of LT lines during the year 2010-11.
- Anti Power Theft Squad activities.

According to KSEB, considering the transmission loss of about 5%, the distribution loss would be 13.02% in 2010-11, which is one of the lowest among the distribution utilities in the country. The Board further claimed that the entire benefit of reduction in T&D loss has been passed on to the consumers through reduction in power purchase cost. According to KSEB, from 2001-02 onwards the total savings in cost of generation and power purchase by way of T&D loss reduction is to the tune of Rs.1285.56 crore.

As per the data provided by the Board from 2003-04, the Board has commissioned several substations and lines in transmission system as shown below:

Details of substations and lines commissioned during the period from 2003-04 to 2010-11

Particulars	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Substations	Numbers							
220 kV	1	1	1	-	1		2	
110 kV	6	8	4	2	4	2	9	5
66 kV	3	2	4	3	1			1
33 kV	7	15	10	10	13	16	18	7
Sub total	17	26	19	15	19	18	29	13
Lines	Kilometers							
220 kV	4.3	15	56		1.01		18.3	
110 kV	154.6	30	55	30	56.38	17.5	48.3	65.2
66 kV	8.4	5	13	15	11.13			0.1
33 kV	95.4	157	131	95	105.44	169.3	199.2	70.8
Sub total	262.7	207	255	140	173.96	186.8	265.8	136.1

Further during the year 2010-11, the capacity of the existing substations has been increased as follows.

- (i) 220 kV s/s- capacity enhanced by 202.5 MVA
- (ii) 110 kV s/s - capacity enhanced by 93.50 MVA
- (iii) 66 kV s/s - capacity enhanced by 32.7 MVA
- (iv) 33kV s/s - enhanced by 5 MVA

The Board has proposed commissioning target for substations and lines for the year 2011-12 and 2012-13 is as follows:

Details of substations and lines proposed for the year 2011-12 and 2012-13

Particulars	2011-12		Target for the year 2012-13
	Revised target	Achievement upto Sep-2011	
Substations	(Numbers)		
220 kV	2		2
110 kV	13	3	13
66 kV	3		7
33 kV	20	5	19
Sub total	38	8	41
Lines	(Kilometers)		
220 kV	94.2		94.2
110 kV	68.0	1.8	170.0
66 kV	5.0		34.0
33 kV	302.0	51.1	167.4
Sub total	469.2	52.9	465.6

Under distribution, the Board has proposed system improvement and loss reduction as given below.

Details of Distribution works proposed for the year 2011-12 and 2012-13

Work	2011-12			Target for 2012-13
	Target	Achievement till Sep-2011	Revised Target	
11 kV Line extension (km)	4843	1262.57	4843	3500
Transformer installation (Nos.)	5451	2252	4954	4500
LT Line extension (km)	2863	2136	2863	5000
1-ph to 3-ph Conversion (km)	7641	2519	7641	6000

Revised target for faulty meter replacement for the current year (2011-12) is 9.44 lakhs and the target for the year 2012-13 is 6.50 lakhs. The commercial loss reduction is addressed with the following measures:

- (i) Replacement of faulty and sluggish electromechanical meters with good electronic meters.
- (ii) Intensive power theft detection by the anti power-theft squad.
- (iii) Computerisation of billing and revenue collection.
- (iv) Enlarging energy audit.

Based on the above plan, the KSEB revised the T&D loss target to 15.56% for the year 2011-12, which is 0.53% lower than the actual loss for 2010-11. For 2012-13, the loss target of 15.32% is proposed, which is about 0.25% reduction over 2011-12.

The Board has stated that annual collection efficiency of HT&EHT consumers for 2010-11 is 96.40% and that of LT consumers is 97.45%. The overall collection

efficiency is 97.20%. The overall AT&C loss target for the year 2011-12 is 17.92% and for 2012-13 will be 17.70%.

On fixing loss reduction targets, the Board submitted in the petition that, there are number of parameters such as energy consumption and load growth of different categories of consumers, capital investment proposed, climatic factors, transmission congestion in the southern region and associated difficulty in procuring power through short-term markets, peak and off-peak demand variations etc., directly affect technical loss reduction. Out of the above, most of the factors are uncontrollable for KSEB. Moreover, KSEB usually sets an ambitious target for loss reduction in the ARR, so as to drive the field offices to achieve as high a target as possible.

According to KSEB, the T&D loss level is 16.09% for the year 2010-11 and further loss reduction can be achieved mainly through improving HT-LT ratio. But due to public resistance to drawing of HT lines, procuring land for installing substations and transformer points etc, KSEB is facing difficulties in improving the HT-LT ratio further. Moreover, KSEB has reduced the commercial losses to considerably by replacing the faulty and sluggish meters with electronic meters and also through intensified APTS activities. Though KSEB has been continuing its efforts on commercial loss reduction, the loss reduction expected is marginal only. Considering these facts, KSEB requested to approve a realistic loss reduction target and allow suitable incentives for achieving about 80% of the loss reduction approved for the year. This may act as a motivation to reduce the T&D loss further.

5.2 Objections of stakeholders:

The HT-EHT Association stated that the Commission directed the Board to file consolidated report on the voltagewise T&D loss before 20-11-2011, but the Board did not comply with the directions. Considering the increase in cost of power, the pay and benefits of personnel responsible for planning and management shall be linked to loss reduction performance. In the present petition, the Board has proposed only 0.25% loss reduction, compared to 0.59% in the previous years, though the capital investment proposed has increased by Rs.413 crore. According to the objector, the loss reduction target for 2012-13 shall be at least 1%, and hence the loss target shall be 14.31% and the energy requirement at periphery will be 19530 MU. The Association also pointed out that Kerala has the lowest MVar/MW ratio, compared to other States. If this issue is addressed properly, it may result in reduction in losses.

5.3 Analysis of the Commission

The Board has proposed a loss level of 15.32% for the year 2012-13, which is 0.25% lower than the current year as per the estimates of the Board. The Commission in its Order on ARR&ERC for the year 2011-12, had approved a loss level of 15.31% for the year 2011-12. The loss reduction target for the year 2011-12 was 0.69% as proposed by the Board. The loss level of 15.32% proposed by the Board for 2012-13 is almost same as the level approved by the Commission for 2011-12. As pointed out in previous years, the loss level and loss reduction levels proposed by the Board are arbitrary, without proper supporting materials. In this regard, the Commission in the previous year had issued specific direction as given below:

“The Board shall study and report the voltage level loss as well as technical and commercial losses in Transmission and distribution. The frequency of studies shall be increased especially in transmission by periodically taking into consideration seasonal load flow variations and the results may be reported to the Commission in a consolidated form. In the case of loss studies in distribution, the Commission had already issued guidelines for taking up more representative sample studies and making a consolidated report. The consolidated report of loss studies in transmission and distribution shall be submitted to the Commission before 30.11.2011.”

The Commission had also directed in the previous order that the Board should submit a workable action plan within 6 months to replace the faulty meters with good quality meters. The Commission also directed that as an interim measure the Board should target to reduce the faulty meters in the system by 2% of the total connections this year

However, the Board did not comply with these directions. In the absence of supporting materials on the T&D loss level, the Commission is not in a position to arrive at reasonable estimates on the loss reduction or loss level. The Commission in general approves the loss reduction targets proposed by the Board. However, as pointed out in the previous years, the under achievement of loss targets approved by the Commission is mainly on account of lack of proper support for the figures projected by the Board.

The Commission notes that, the capital expenditure planned for system improvement or loss reduction is still not linked to loss levels or other distribution performance

parameters. As such no evidence is available on the reasonableness of projections on the loss levels. This is especially important with reduction in losses below 15% level and constant increase in the capital expenditure budget.

In 2010-11, the Commission has fixed the loss reduction target of 0.92% as proposed by the Board. However as per the actual data, the loss reduction achieved by the Board is much higher than the target level i.e., 1.62%. The following table shows the performance of the Board in loss reduction over the years.

Loss reduction proposed, approved and achievement

Year	Proposed in the ARR (%)	Approved by the Commission (%)	Actual achieved by KSEB (%)
2005-06	2.72	2.72	1.99
2006-07	1.76	2.50	1.50
2007-08	1.83	2.00	1.45
2008-09	1.63	1.63	1.19
2009-10	1.27	1.00	1.12
2010-11	0.92	0.92	1.62
2011-12	0.69	0.69	0.53*
*proposed to be achieved as per ARR petition			

In the present petition, the Board has proposed a much lower loss reduction target of 0.25% for 2012-13. Considering the loss reductions achieved in the previous years, the Commission is of the view that there is a possibility of achieving 0.5% reduction if concerted efforts are made. It is sure that even with the level of efforts taken during 2010-11, loss reduction of 0.5% may not be a difficult target. Accordingly, the Commission fixes the loss reduction target as 0.5% and the approved T&D loss level for 2012-13 shall be 14.81%

	Proposed in the ARR	Approved by the Commission
Energy sales (MU)	16386	16386
Internal loss (%)	15.32%	14.81%
Net Energy input to KSEB System (MU)	19350	19235

Considering the present loss level, the Commission would reiterate that scientific studies are required to understand the loss levels in the system and to decide the opening level of losses. Further, an analysis of the exact nature of losses (technical/non technical) is required to devise policies for targeting the loss reduction programme.

The Commission is in the process of finalizing revised tariff regulations and has engaged consultants for providing inputs. As and when new regulations are in place, base level data on loss levels needs to be streamlined. Hence, a comprehensive technical study on the transmission and distribution system is particularly necessary. The Commission may also independently engage experts to arrive at the base level numbers. **In the mean time, the Commission directs that consistent with the directions issued in the previous orders, the Board shall study and report the voltage level loss as well as technical-commercial separation of T&D loss within four months from the date of the Order. The frequency of studies shall be increased especially in transmission by periodically taking into consideration seasonal load flow variations and the results may be reported to the Commission in a consolidated form. In the case of loss studies in distribution, the Commission had already issued guidelines for taking up more representative sample studies and making a consolidated report. The consolidated report of loss studies in transmission and distribution shall be submitted to the Commission by 1-10-2012.**

5.4 AT&C Loss

The Board has reported the collection efficiency of 97.2% for 2010-11. The AT&C loss levels proposed by the Board is 17.92% for 2011-12 and 17.70% for 2012-13 as against 16.15% fixed by the Commission for 2011-12. The Commission had fixed collection efficiency as 99%. For the year 2012-13 also the collection efficiency shall be 99%. Accordingly the AT&C loss target for 2012-13 shall be 15.66%

	2010-11	2011-12	2012-13	
	Actual	Approved	Proposed by the Board	Approved by the Commission
T&D loss	16.09%	15.31%	15.32%	14.81%
Collection efficiency	97.20%	99.00%	97.20%	99.00%
AT&C loss	18.44%	16.15%	17.70%	15.66%

CHAPTER – 6

ANALYSIS OF ANNUAL REVENUE REQUIREMENTS

6.1 Introduction

The Board has projected an Aggregate Revenue Requirement (ARR) of Rs.9397.40 Crore for 2012-13 including the return on equity, by proposing 15% restrictions on the use of power by the consumers. The power purchase cost to that extent was lower compared to the normal situation. The details of expenses under different heads proposed by the Board and the approach of the Commission are explained in the ensuing sections.

6.2. Generation and Power purchase

Total energy requirement for 2012-13 under power restrictions estimated by the Board is 19351MU. The peak demand estimated for the year is 3538MW, which shows an increase of 5.21% on a compounded basis over the peak demand met in 2007-08 (2745 MW). The Board, based on the actual demand in the first 9 months in 2011-12, has estimated that there is a considerable increase in demand in 2011-12. Compared to about 4% increase in demand in 2010-11 over 2009-10, the current year demand (2011-12) will be about 12.5% over 2010-11. The peak demand will increase by about 9.5% during the current year. Based on this, the Board has projected energy requirement under normal conditions for 2012-13 as 20227MU. However, the restrictions proposed at 15% level will moderate the demand to 19351MU. Though the Board has committed that energy conservation efforts will be continued in 2011-12, the same was not reflected in the demand growth.

6.2.1 Internal Generation

In the petition, the Board has stated that the hydro availability was reviewed on 28th December 2011. With the available storage as on 30-11-2011 and average monsoon for the remaining months of the water year 2011-12, the average daily hydro generation will be 20.65MU and the generation proposed for April and May 2012 will be 20.71MU and 20.38MU per day respectively. Thus, the hydel generation possible for April and May is estimated as 1254 MU. The Board has estimated the hydro generation potential for 2012-13 based on the 20 year inflow data (from 1992-93 to 2010-11). The average inflow for the 20 year period is estimated as 6736 MU. Accordingly the average daily generation for the water year June 2011 to May 2012

is estimated as 18.30MU per day. Thus the hydro generation expected (excluding small hydel projects) is about 6825MU. The generation from small hydro sources is estimated as 168MU. Hence, the total hydro generation for the year 2011-12 would be 6992.96MU. Considering the auxiliary consumption of 0.5% of gross generation, net availability of energy from hydel sources is estimated as 6958MU for 2012-13.

6.2.2. Purchase of power from Central Generating Stations (CGS)

As stated in the petition, the present allocation from Central Generating Stations is about 1038.7 MW with effect from 2-12-2011 including the special allocation of 135MW from the Eastern Region to compensate the transfer of 180MW of allocation from TNEB to KSEB in RGCCPP. Though the Central Government has given 100MW to the State from the unallocated share with effect from 2-3-2011, later reallocated 50MW to Andhra Pradesh. Of the central stations expected to commission during 2011-12, only Simhadri has started commercial operation from September 2011. The present allocation of Central generating stations is as shown below:

Allocation from Central Generating Stations w.e.f 02-12-2011

No.	Power Plant	Installed Capacity	Allocation	Allocated Capacity to KSEB	Aux Consumption	Target PLF	Energy availability
		(MW)	(%)	(MW)	(%)	(%)	(MU/day)
1	TALCHER - Stage II	2000	21.60%	432.0	6.50%	88.00%	8.53
2	NLC- Exp- Stage-1	420	16.38%	68.8	9.50%	80.00%	1.20
3	NLC-II- Stage-1	630	10.43%	65.7	10.00%	75.00%	1.06
4	NLC-II- Stage-2	840	11.14%	93.6	10.00%	75.00%	1.52
5	RSPTS Stage I & II	2600	12.45%	323.7	6.50%	89.00%	6.46
6	MAPS	440	5.41%	23.8	10.00%	68.50%	0.35
7	KAIGA Stg I	440	9.33%	41.1	10.00%	75.00%	0.67
8	KAIGA Stg II	440	8.65%	38.1	10.00%	75.00%	0.62
11	Simhadri Exp*	1000	8.76%	87.6	6.50%	85.00%	1.67
10	Farakka STP	1600	3.94%	63.0	6.50%	85.00%	1.20
11	Kahalgan	840	3.89%	32.7	6.50%	85.00%	0.62
12	Talcher-I	1000	3.94%	39.4	10.50%	82.00%	0.69
				1309.4			24.6

*Simhadri 2nd unit is expected to start COD during the month of March-2012

In addition to the existing share, NLC-II expansion and Vallur JV project in Tamil Nadu are expected to start commercial operation in 2012-13. Considering the uncertainty of commissioning Koodamkulam Atomic stations, the same was not considered. The details of capacity allocation from new stations given by the Board is shown below:

New CGS expected to be commissioned during 2012-13

Name of the station	Total capacity	Allocation to KSEB	Allocated capacity	Expected date of commercial operation
	(MW)	(%)	(MW)	
NLC- Exp- Stge-II	500	14	70	1 st unit by Marh-2012 and 2 nd by Dec-2012
Vallur JV project (TN)	1500	3.27	49.1	1st unit by April-2012, 2nd unit by Aug-2012 and 3rd during the year 2013-14
Total	2000		119.05	

The capacity allocated from CGS stations for the year 2012-13 and the estimate of energy availability is given below: According to KSEB, as per the SRPC accounts, the line loss in CTU system is 5.01%.

Energy availability from CGS for the year 2012-13

No.	Power Plant	Installed Capacity	Allocation	Allocated Capacity to KSEB	Aux Consumption	Target PLF	Energy availability at Generator bus		PGCIL losses	Net availability at KSEB periphery (MU)
		(MW)	(%)	(MW)	(%)	(%)	(MU/day)	Total for the Year (MU)	(MU)	(MU)
1	TALCHER - Stage II	2000	21.60%	432.0	6.50%	88.00%	8.53	3113.74	156.00	2957.74
2	NLC- Exp- Stage-1	420	16.38%	68.8	9.50%	80.00%	1.20	436.32	21.86	414.46
3	NLC-II- Stage-1	630	10.43%	65.7	10.00%	75.00%	1.06	388.54	19.47	369.07
4	NLC-II- Stage-2	840	11.14%	93.6	10.00%	75.00%	1.52	553.31	27.72	525.59
5	RSPTS Stage I & II	2600	12.45%	323.6	6.50%	89.00%	6.46	2359.28	118.20	2241.08
6	MAPS	440	5.41%	23.8	10.00%	68.50%	0.35	128.55	6.44	122.11
7	KAIGA Stg I	440	9.33%	41.1	10.00%	75.00%	0.67	242.74	12.16	230.58
8	KAIGA Stg II	440	8.65%	38.1	10.00%	75.00%	0.62	225.05	11.27	213.77
9	Simhadri Exp	1000	8.76%	87.6	6.50%	85.00%	1.67	609.87	30.55	579.32
10	Farakka STP	1600	3.94%	63.0	6.50%	85.00%	1.20	438.89	21.99	416.90
11	Kahalgon	840	3.89%	32.7	6.50%	85.00%	0.62	227.49	11.40	216.09
12	Talcher-I	1000	3.94%	39.4	10.50%	82.00%	0.69	253.30	12.69	240.61
13	NLC - II Exp	500	14.00%	70.0	10.00%	80.00%	1.21	293.93	14.73	279.21
14	Vallur JV with TNEB	1500	3.27%	49.1	7.50%	85.00%	0.93	187.58	9.40	178.18
	Total			1428.4			26.7	9458.60	473.88	8984.72

Cost of energy from Central Stations: The Board has stated that CERC has approved the revised tariff for the period 2009 to 2014, which resulted in considerable increase in tariff. CERC has issued provisional/final tariff for all the stations and for PGCIL. The fixed cost commitment for KSEB is estimated based on the revised CERC orders. Accordingly, the fixed cost commitment expected for central generating stations is as shown below:

Fixed cost commitment of CGS for the year 2012-13

SI No.	Power Plant	Installed Capacity (MW)	Allocation to KSEB	Total Fixed cost for the year 2012-13	Fixed cost to KSEB
				(Rs.Cr)	(Rs.Cr)
1	TALCHER - Stage II	2000	21.60%	1101.59	237.94
2	NLC- Exp- Stage-1	420	16.38%	371.20	60.80
3	NLC-II- Stage-1	630	10.43%	229.85	23.97
4	NLC-II- Stage-2	840	11.14%	306.12	34.10
5	RSPTS Stage I & II	2600	12.45%	1135.04	141.29
6	Simhadri Exp	1000	8.76%	1134.12	99.35
7	Farakka STP	1600	3.94%	873.61	34.42
8	Kahalgon	840	3.89%	525.04	20.42
9	Talcher-I	1000	3.94%	551.78	21.74
10	MAPS	440	5.41%		25.51
11	KAIGA Stg I	440	9.33%		73.64
12	KAIGA Stg II	440	8.65%		68.28
13	NLC - II Exp	500	14.00%		29.39
15	Vallur JV with	1500	3.27%		18.76
	Total				889.62

The Board has taken the average variable cost of CGS for the period from April - 2011 to September-2011 for estimating the variable cost for the year 2012-13. The month wise details of variable cost of CGS for the period from April-2011 to September-2011 are given below.

Variable cost of CGS for the period from April-2011 to Sep-2011

Source	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Average
Talcher Stage-II	1.74	2.03	2.42	2.61	2.76	2.524	2.35
NTPC-RSTPS	1.66	1.59	1.78	1.64	1.60	1.61	1.65
NLC-Stage-1	1.95	1.96	1.96	1.94	1.94	1.93	1.95
NLC-Stage-II	1.95	1.96	1.96	1.94	1.94	1.93	1.95
NLC Expansion	1.80	1.83	1.83	1.77	1.85	1.79	1.81

For Simhadri and Eastern Region stations, variable cost is taken as Rs 2.35 per unit. The tariff of the Nuclear Power plants MAPS and KAIGA is based on the rates approved by Department of Atomic Energy (DAE). Single part tariff is in force for Nuclear Power Stations. The average tariff for the energy purchased from MAPS is Rs.1.98 per unit and that from KAIGA is Rs. 3.04 per unit during the period from April-11 to September-2011. The Board has assumed Rs. 1.00 per unit as the fixed cost for the new stations. For NLC-II Expansion, variable cost of Rs 1.81 per unit and for Vallur project Rs 2.00 per unit is taken for estimating the generation cost. The total energy available from CGS is estimated by the Board and the cost are as follows:

Estimated Cost of Power Purchase from the CGS in 2012-13

No.	Power Plant	Energy schedule at generator bus	External loss	Net Energy input into KSEB system	Fixed Cost	Variable cost	Total cost	Avg.rate (excl. incentive, other levies)
		(MU)	(MU)	(MU)	(Rs. Cr)	(Rs.Cr)	(Rs.Cr)	(Rs/unit)
1	TALCHER - Stage II	3113.74	156.00	2957.74	237.94	731.73	969.67	3.28
2	NLC- Exp- Stage-1	436.32	21.86	414.46	60.80	78.10	138.90	3.35
3	NLC-II- Stage-1	388.54	19.47	369.07	23.97	75.76	99.73	2.70
4	NLC-II- Stage-2	553.31	27.72	525.59	34.10	107.90	142.00	2.70
5	RSPTS Stage I & II	2359.28	118.20	2241.08	141.28	389.28	530.56	2.37
6	MAPS	128.55	6.44	122.11	25.51	0.00	25.51	2.09
7	KAIGA Stg I	242.74	12.16	230.58	73.64	0.00	73.64	3.19
8	KAIGA Stg II	225.05	11.27	213.77	68.28	0.00	68.28	3.19
9	Simhadri Exp	609.87	30.55	579.32	99.35	143.32	242.67	4.19
10	Farakka STP	438.89	21.99	416.90	34.42	103.14	137.56	3.30
11	Kahalgon	227.49	11.40	216.09	20.42	53.46	73.88	3.42
12	Talcher-I	253.30	12.69	240.61	21.74	59.53	81.27	3.38
13	NLC - II Exp	293.93	14.73	279.21	29.39	52.61	82.01	2.94
14	Vallur JV with TNEB	187.58	9.40	178.18	18.76	37.52	56.27	3.16
	Total	9458.60	473.88	8984.72	889.60	1832.35	2721.95	3.03

Transmission charges

The Board stated in the petition that hitherto, the sharing of transmission charges is being done in proportion to the capacity allocation from each CGS to the respective beneficiary states. The new methodology for sharing the transmission charges and losses has been notified by CERC, which is effective from 01-07-2011. For the initial two years, 50% of the transmission charges payable to the PGCIL are being shared based on the new methodology and 50% based on the prevailing practices. The total transmission charges payable to PGCIL is estimated as Rs.325.83 crore for 2012-13.

Transmission charges payable to PGCIL

Sl No	Items	2011-12		Estimate for the year 2012-13
		As per the order on ARR	Revised estimate	
		(Rs. Cr)	(Rs. Cr)	(Rs. Cr)
1	Southern region			
	Transmission charges	217.27	248.51	293.22
	Incentives etc	15.77	19.52	20.41
	Sub total	233.04	268.03	313.63
2	NTPC Kayamkulam Transmission charges	11.36	12.2	12.20
3	Total transmission charges (excluding income tax, incentives etc)	244.4	280.23	325.83

Other Charges payable to CGS

The other charges payable by the beneficiary State utilities such as incentive, income tax, watercess, foreign exchange rate variation estimated based on the previous year actual are shown below:

Other Charges payable to CGS

Source	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
	(actual_)	(actual)	(actual)	(Actual)	(Actual)	(Actual))	(actual)	(actual)	(proj)	(Est)
				(Rs. Cr)	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)
Generators										
Thalcher – II	1.06	4.03	-0.87	12.76	2.64	-4.78	118.37	12.36	20.64	27.00
NLC-II - Stage-1	18.97	14.00	7.50			10.17	0.84	8.25	8.15	6.85
NTPC- RSTPS	10.54	57.64	23.80	27.21	54.70	62.99	25.06	7.73	37.02	35.78
ER	1.23	13.58	-19.08	0.00	0.22	3.03				
NLC-II - Stage-2	11.76	0.00						12.03	6.02	9.02
MAPS	4.76	2.40	1.15	0.48	1.39	0.23	0.3	0.07	0.86	0.56
NLC (Exp)		2.73		1.94		4.75	0.06	54.90	12.88	14.91
Kayamkulam	1.75					1.58		32.90	17.24	17.24
KPCL						4.52				
Kaiga	0.22	0.38	0.25	5.77	2.97	0.19	0.89	0.33	1.54	1.95
PGCIL										
Eastern Region	1.75	0.30	0.00	0.00	0.09	-0.17		0.04		
Southern Region	21.96	14.20		10.21	34.94	17.27	2.25	38.25	19.52	20.41
Kayamkulam	0.00	1.36				13.654				
Total	74.00	110.62	12.75	58.37	96.95	113.43	147.77	166.86	123.87	133.71

The Board based on the previous year details has estimated that Rs.133.71 crore is payable as other charges for CGS. Based on the above estimates, the total cost of power purchase from Central Generating Stations estimated by the Board is given below:

Total cost of power purchase from CGS

Source	Energy Produced /Purchased	External Loss	Net Energy Input to KSEB T&D system	Fixed Cost	Incentive, Tax, etc.	Total Variable cost	Total Cost
	MU	MU	MU	Rs. Cr	Rs. Cr	Rs. Cr	Rs. Cr
Thalcher – II	3113.74	156.00	2957.74	237.94	27.00	731.73	996.67
NLC- Exp-stage-1	436.32	21.86	414.46	60.80	14.91	78.10	153.81
NLC-II- Stage-1	388.54	19.47	369.07	23.97	6.85	75.76	106.58
NLC-II- Stage-2	553.31	27.72	525.59	34.10	9.02	107.90	151.02
RSPTS Stage I & II	2359.28	118.20	2241.08	141.28	35.78	389.28	566.34
MAPS	128.55	6.44	122.11	25.51	0.56	0.00	26.07
KAIGA Stg I	242.74	12.16	230.58	73.64	1.95	0.00	75.59
KAIGA Stg II	225.05	11.27	213.77	68.28	0.00	0.00	68.28
Simhadri Exp	609.87	30.55	579.32	99.35		143.32	242.67
Farakka STP	438.89	21.99	416.90	34.42		103.14	137.56
Kahalgon	227.49	11.40	216.09	20.42		53.46	73.88
Talcher-I	253.30	12.69	240.61	21.74		59.53	81.27

Source	Energy Produced /Purchased	External Loss	Net Energy Input to KSEB T&D system	Fixed Cost	Incentive, Tax, etc.	Total Variable cost	Total Cost
	MU	MU	MU	Rs. Cr	Rs. Cr	Rs. Cr	Rs. Cr
NLC - II Exp	293.93	14.73	279.21	29.39		52.61	82.01
Vallur JV with	187.58	9.40	178.18	18.76		37.52	56.27
Sub total (CGS)	9458.60	473.88	8984.72	889.60	96.07	1832.35	2818.02
(c) Transmission charges							
CGS				293.22	20.41		313.63
Kayamkulam				12.20			12.20
Sub total				305.42	20.41		325.83
Total	9458.60	473.88	8984.72	1195.02	116.48	1832.35	3143.84
Average cost of CGS at KSEB bus (Rs/kWh)							3.50

According to KSEB, the average cost of power purchase from CGS is likely to be at Rs 3.50 per unit as against Rs 2.21 per unit during the year 2008-09.

Energy purchase from Small IPPs:

The total energy availability small IPPs such as wind, SHPs, Cogeneration plants estimated by the Board for the year 2012-13 is as given below:

Proposed generation & Cost for power procurement from Wind and other Small IPPs

Source	Capacity (MW)	Generation target (MU)	Per unit cost (Rs/ kWh)	Total cost (Rs.Cr)
Wind IPPs	33.68	73.54	3.14	23.09
Ullumkal SHP	7.00	34.00	2.00	6.80
MP steel- Co generation plant	8.00	40.80	2.31	9.42
Iruttikkianam SHP	3.00	7.88	2.70	2.13
PCBL	6.00	36.00	2.02	7.27
Total	57.68	192.22		48.71

From the small IPPs about 192 MU is proposed to purchase at a cost of Rs.48.71 Crore.

Purchase from traders:

For meeting the demand in 2012-13, the Board is planning to import energy through traders by entering into advance tieups and also by booking medium term open access in advance. However, the Board stated that due to the constraints of interstate transmission system in S2 region, the import capability is limited. As per the estimates of the Board the maximum import capability through traders and exchanges for the year 2012-13 will be as shown below:

**Maximum energy procurement possible
through traders/ exchanges for the year 2012-13**

Month	Maximum Import capability	Energy and power availability from CGS			Maximum possible energy procurement through traders exchange			Total energy procurement possible from outside the State (MU)
		Energy (net at KSEB periphery)		Net Power	Net Capacity	Net energy (at KSEB periphery)		
		(MW)	(MU/day)	Total (MU)	(MW)	(MW)	MU/day	
Apr-12	1300	24.23	726.90	1010	290	6.97	209.10	936.00
May-12	1300	24.23	751.13	1010	290	6.97	216.07	967.20
Jun-12	1300	24.23	751.13	1010	290	5.52	171.05	922.19
Jul-12	1300	24.23	726.90	1010	200	3.80	114.00	840.90
Aug-12	1300	24.52	760.22	1022	200	3.80	117.80	878.02
Sep-12	1300	24.52	735.70	1022	220	4.18	125.40	861.10
Oct-12	1300	24.52	760.22	1022	278	5.29	163.86	924.08
Nov-12	1300	24.52	735.70	1022	278	5.29	158.57	894.27
Dec-12	1300	25.10	778.03	1046	254	6.10	189.17	967.20
Jan-13	1300	25.10	778.03	1046	254	6.10	189.17	967.20
Feb-13	1300	25.10	702.73	1046	254	6.10	170.87	873.60
Mar-13	1301	25.10	778.03	1046	255	6.13	189.92	967.94
Total			8984.72				2014.98	10999.70

As per the estimates of the Board, about 2015 MU can be procured through traders at a rate of Rs.4.5 per unit. Hence, the total expenses towards import through traders/exchange is estimated at Rs.906.74 crore for 2012-13.

The summary of availability of energy from the above sources estimated by the Board is given below:

Energy proposed to source from Liquid Fuel Stations in 2012-13

	MU
Energy Demand at normal growth	20226.51
Hydro (net)	6957.99
CGS (at KSEB periphery)	8984.72
Traders/ exchange	2013.26
Wind and other IPPs	192.22
Total	18148.19
Balance required to meet normal demand	2078.32
Balance Proposed to buy from Liquid fuel stations	1200.95

According to the estimates of the Board, about 2078.32 MU of power has to be procured from liquid fuel stations at the rate of about Rs.10.37 per unit to meet the normal energy demand, which will entail an additional cost of Rs.2155.20 crore. Hence, the Board proposed to impose power restrictions at 15%. If the restrictions are imposed the dependence on liquid fuel stations can be limited to about 1200MU as shown below:

Capacity and energy availability from liquid fuel stations

Station	Total capacity	Capacity available	Annual Fixed cost commitment	Energy availability	Variable cost as on 1st Dec-2011
	(MW)	(MW)	(Rs.Cr)	(MU per day)	(Rs/unit)
RGCCPP	360	320	210.2	7.45	10.29
BSES	157	150	71.5	3.49	10.31
KPCL	20	13	5.74	0.30	10.77
BDPP	106.6	60		1.40	10.73
KDPP	128	80		1.86	10.43
Total	510	623	287.44	14.50	10.37

Summary of the power procurement from liquid fuel stations

Liquid fuel stations	Energy schedule (net)	Fixed cost	Incentives etc	Variable cost		Total cost
	(MU)	(Rs.Cr)	(Rs.Cr)	Rate (Rs/kWh)	Amount (Rs.Cr)	(Rs.Cr)
BDPP	118.95			10.73	130.91	130.91
KDPP	231.08			10.43	247.19	247.19
RGCCPP	803.34	210.20	17.24	10.29	826.64	1054.08
BSES	0.00	71.50		10.31	0.00	71.50
KPCL	47.58	5.74		10.73	51.25	56.99
Total	1200.95	287.44	17.24		1255.99	1560.67

If the balance demand for energy is met from liquid fuel stations, the total cost of Liquid fuel stations including fixed costs will be Rs.1560.57 crore.

Based on the proposal of power restrictions, the total expenses towards generation and power purchase estimated by the Board is shown below:

Summary of cost of generation and power purchase for the year 2012-13

Source	Energy Produced /Purchased	Auxiliary Consumption	External Loss	Net Energy Input to KSEB system	Fixed Cost	Incentive, Tax, etc.	Total Variable cost	Total Cost
	MU	MU	MU	MU	Rs. Cr	Rs. Cr	Rs. Cr	Rs. Cr
KSEB Internal								
Hydel	6992.96	34.96		6957.99				
Wind -Kanjikode	1.70	0.00		1.70				
BDPP	122.00	3.05		118.95		10.73	130.91	130.91
KDPP	237.00	5.93		231.08		10.43	247.19	247.19
Sub total	7353.66	43.94		7309.72		21.16	378.10	378.10
Power purchase								
(a) CGS								
Thalcher - II	3113.74		156.00	2957.74	237.94	27.00	731.73	996.67
NLC- Exp-stage-1	436.32		21.86	414.46	60.80	14.91	78.10	153.81

NLC-II- Stage-1	388.54		19.47	369.07	23.97	6.85	75.76	106.58
NLC-II- Stage-2	553.31		27.72	525.59	34.10	9.02	107.90	151.02
RSPTS Stage I & II	2359.28		118.20	2241.08	141.28	35.78	389.28	566.34
MAPS	128.55		6.44	122.11	25.51	0.56	0.00	26.07
KAIGA Stg I	242.74		12.16	230.58	73.64	1.95	0.00	75.59
KAIGA Stg II	225.05		11.27	213.77	68.28	0.00	0.00	68.28
Simhadri Exp	609.87		30.55	579.32	99.35	0.00	143.32	242.67
Farakka STP	438.89		21.99	416.90	34.42	0.00	103.14	137.56
Kahalgon	227.49		11.40	216.09	20.42	0.00	53.46	73.88
Talcher-I	253.30		12.69	240.61	21.74	0.00	59.53	81.27
NLC - II Exp	293.93		14.73	279.21	29.39	0.00	52.61	82.01
Vallur JV with	187.58		9.40	178.18	18.76	0.00	37.52	56.27
Sub total (CGS)	9458.60		473.88	8984.72	889.60	96.07	1832.35	2818.02
(b) Wind and small IPPS								
Wind	73.54			73.54			23.09	23.09
Ullumkal	34.00			34.00			6.80	6.80
MP Steel	40.80			40.80			9.42	9.42
Irukkikkanam SHP	7.88			7.88			2.13	2.13
PCBL	36.00			36.00			7.27	7.27
Sub total	192.22			192.22			48.72	48.72
(c) Other IPPs								
RGCCPP	803.34			803.34	210.20	17.24	826.64	1054.08
BSES	0.00			0.00	71.50		0.00	71.50
KPCL	47.58			47.58	5.74		51.25	56.99
Sub total	850.92			850.92	287.44	17.24	877.89	1182.57
(d) Traders	2013.26			2013.26			905.97	905.97
(e) Transmission charges								
CGS					293.22	20.41	0.00	313.63
Kayamkulam					12.20		0.00	12.20
Sub total					305.42	20.41		325.83
Sub total power purchase	12515.00	0.00	473.88	12041.12	1482.46	133.72	3664.91	5281.09
Total	19868.66	43.94	473.88	19350.84	1482.46	154.88	4043.01	5659.19

The total cost of power purchase and generation for the year 2012-13 is estimated to be Rs.5659.19 crore

6.2.5. Objections of stakeholders

The HT & EHT Association submitted an alternate estimate on the generation and power purchase based on the actual storage as on 20-2-2012. According to the Association, the hydro availability for the year 2012-13 would be 7750MU after considering the auxiliary consumption of 0.5%. Hence the power purchase requirement at the periphery will be 11780MU.

Shri. Ravi, Chalakudi puzha Samrakshna Samiti, argued that hydro generation may be suitably revised considering the actual generation of previous years. He suggested to encourage solar power generation in the State.

According to Shri. A.R Satheesh, the major concern for industries is lack of capacity addition. In the last 10 years, the internal capacity addition is only 238MW, where as the growth in consumption is 55%.

M/s Binani Zinc also objected to the hydro projections of the Board. According to them hydro generation of 8000 MU may be taken for 2012-13. According to Confederation of Consumer Vigilance Centre, Board is not paying attention to the maintenance of generating stations and the breakdown is due to lack of maintenance.

The KSEB Officers' Association mentioned that the tariff prevailing in Kerala is not on account of low cost of electricity in Kerala as suggested by the Stakeholders.

The HT-EHT Association pointed out that the availability of power from Central Stations is generally more than projected by the Board. Based on the actual generation, the Association estimated that about 856MU more will be available from CGS ie., 9840 MU instead of 8985MU projected by the Board. The Association also stated that there is a possibility of commissioning the Koodamkulam Project in 2012-13 and at least 730MU may be available from the allocation of 260MW from the station. Thus the total availability of energy estimated by the Association is 20524MU. According to their estimate, the total power purchase cost would be Rs.4937 crore only. Based on the data they have established that the expected maximum demand of 3351MW can be met from the existing sources. The Association also objected to the argument of corridor congestion put forwarded by the Board. According to the Association, if the Koodamkulam and Palakkad Substations are commissioned, the import capability would be 1760MW.

6.2.6. Analysis and decision of the Commission

The Commission has considered the projections of KSEB and the objections of the stakeholders in detail. The cost of generation and power purchase has been increasing over the years, mainly on account of increase in the variable cost and increase in cost of power from Central Generating Stations. As pointed out by the Board, the average power purchase cost has been increasing over the years. The

power restrictions proposed by the Board is mainly for reducing the dependence on liquid fuel stations.

6.2.6.1 Internal generation

The Board has estimated the hydro generation at 6993MU, considering average generation of 20.71MU in April and 20.38MU in May 2012. The Objectors have commented that the hydro estimation of the Board is pessimistic. Based upon the past experience, the Commission is inclined to accept the tested projection methodology of the Board in estimating the hydro availability. The Commission projects the hydro availability, based upon the actual opening balance of water in the reservoirs on 1-4-2012 and the data furnished by the Board in the filing, as given below:

	MU
Opening Balance as on 1-4-2012	1606
Inflow expected for April and May 2012	281
Inflow expected June 2012 to March 2013	6455
Availability in Small Hydro Projects	168
Total	8510
Reserves required	
Opening Reserve for June	550
April 2013 & May 2013 (after adjusting inflow)	981
Net Hydro Availability for 2012-13	6979

Thus, as per the estimate of the Commission based upon the actual opening balance of 1-4-2012, the hydro availability for the year 2012-13 shall be around 6979MU. Since the variance from the Board's estimate is not considerable, the Commission approves the estimate of the Board and the hydro availability for 2012-13 shall be taken as 6993MU.

Cost of generation from Internal Liquid Fuel Stations

The Board has projected the average variable cost of generation from BDPP and KDPP as Rs.10.73/unit and Rs.10.43 per unit. The Board has stated that the naphtha price from April to November 2011 ranges from Rs.42,114 to Rs.47,257 per MT. According to KSEB, the price may go up due to deterioration of exchange rate. The Commission has considered the arguments of the Board. The Commission in the previous orders have provisionally approved the benchmark parameters. The

Commission continues to follow the same principle, but the average parameters reported by the Board from October 2011 to December 2011 are taken for arriving at the average benchmark parameters. Average benchmark parameters reported by the Board (October to December 2011) is given below:

	Heat Rate (kCal/kWh)		Calorific Value of fuel (kCal/kg)	
	BDPP	KDPP	BDPP	KDPP
October	1995	2089	10700	10330
November	2102	2143	10700	10330
December	2022	2102	10700	10330
Average	2040	2111	10700	10330

Accordingly, the average heat rate for BDPP is approved as 2040 kCal/kg and 2111 kCal/kg for KDPP. The Commission has also considered the increase in fuel prices. Accordingly average LSHS Price approved for the year 2012-12 is Rs.47,000 per MT.

Benchmark parameters for BDPP and KDPP for 2012-13

	BDPP	KDPP
Auxiliary Consumption	2.50%	2.50%
Gross Heat Rate (kCal/kWh)	2040	2111
Average Caloric Value of Fuel (kCal/kg)	10700	10330
Fuel Consumption Factor	0.1907	0.2044
Price of Fuel (Rs./MT)	47000	47000
Cost per unit	8.96	9.60
Cost of lubricant outl etc.	0.15	0.05
Total Cost per unit (Rs./kWh)	9.11	9.65

The Board has projected variable cost of Rs.10.29 per unit for RGCCPP, Rs.10.77 per unit for KPCL. The Board has not proposed any generation from BSES. The Commission approves the rates proposed by the Board in respect of RGCCPP. Per unit cost for liquid fuel stations for 2012-13 is as follows

	Proposed by the Board (Rs./kWh)	Approved by the Commission (Rs./kWh)
BDPP	10.73	9.36
KDPP	10.43	9.64
KPCL	10.77	10.77
RGCCPP	10.29	10.29

6.2.6.2. Availability of power from CGS

The Board has estimated gross generation from CGS stations as 9458MU. After accounting for losses the net availability of energy at the Kerala periphery is taken as 8984MU. Some objectors have pointed out that the actual generation during the previous years is higher than the projections of KSEB and hence projections for 2012-13 have to be raised upwards. The Commission notes that the projections of CGS especially the major stations such as RPTS, Talcher etc., have been made based on the actual PLF achieved by these plants during 2004-09 period, as given by CERC. The Commission is not inclined to change the methodology for the present year. While estimating the availability of power from central generating stations, the Board did not consider the commissioning of Koodamkulam Nuclear Power Station. However, the latest developments indicate that the station will be commissioning in the immediate future. The Commission considers a conservative schedule for commissioning the plant i.e., the first unit by August, 2012 and the second unit by December 2012. This would additionally provide about 700MU for 2012-13. By considering the same average rate as that of KAIGA (Rs.3.19/unit), the power purchase cost will be Rs.223.30 Crore. Further, commissioning of the plant will also ease the transmission constraints in the S1-S2 region enabling more imports from outside the State.

The Board has taken the average variable cost during the period from April to September 2011 for estimating the variable charges for central stations. The Commission approves the estimates of the average variable cost of CGS as projected by the Board.

Approved variable charges for central stations for 2012-13

Project	Variable Charge proposed by KSEB Rs./kWh	Approved cost (Rs./kWh)
Talcher – II	2.35	2.35
NLC- Exp-stage-1	1.79	1.79
NLC-II- Stage-1	1.95	1.95
NLC-II- Stage-2	1.95	1.95
RSPTS Stage I & II	1.65	1.65
MAPS	2.09	2.09
KAIGA Stg I	3.19	3.19
KAIGA Stg II	3.19	3.19
Simhadri Expansion	2.35	2.35
Farakka STP	2.35	2.35
Kahalgon	2.35	2.35
Talcher –I	2.35	2.35
NLC - II Exp	1.79	1.79
Vallur JV	2.00	2.00
Kudamkulam	3.19	3.19

6.2.6.3 Other charges for Central Stations:

The other charges include the incentives, tax, etc., periodically charged by CGS. Generally the Commission allows the projection of KSEB. However, there is wide variation in the projections and actual. As per the new regulations, returns to the Central Generating Stations have been allowed on post tax basis and unlike in previous years, the income tax is already included in the fixed charges. Hence other charges will decrease substantially. Accordingly, the other charges approved for 2012-13 is as follows:

Other charges approved for 2012-13 for CGS

Source	Other charges Proposed	Other Charges allowed
	Rs. Crore	Rs. Crore
Thalcher – II	27.00	40.00
NLC- Exp-stage-1	14.91	
NLC-II- Stage-1	6.85	
NLC-II- Stage-2	9.02	
RSPTS Stage I & II	35.78	
MAPS	0.56	
KAIGA Stg I	1.95	
Sub total (CGS)	96.07	40.00
(c) Transmission charges		
CGS	20.41	20.41
Kayamkulam		
Sub total	20.41	20.41
Total	116.48	60.41

6.2.6.4 Energy availability from wind and small IPPs:

As per the projections of the Board, energy availability from WEGs and small IPPs is about 192MU. The Commission approves the projections of the Board in this regard.

Proposed generation & Cost for power procurement from Wind and other Small IPPs

Source	Capacity (MW)	Generation target (MU)	Per unit cost (Rs/ kWh)	Total cost (Rs.Cr)
Wind IPPs	33.68	73.54	3.14	23.09
Ullumkal SHP	7.00	34.00	2.00	6.80
MP steel- Co generation plant	8.00	40.80	2.31	9.42
Iruttikkianam SHP	3.00	7.88	2.70	2.13
PCBL	6.00	36.00	2.02	7.27
Total	57.68	192.22		48.71

6.2.6.5. Energy from liquid stations and traders

The total energy available from the above sources (excluding Liquid Fuel Stations) is estimated as 16834MU. The balance energy required is given below:

	MU
Total Energy requirement	19,235
Hydro Generation	6,958
Central Generating Stations	9,650
Small IPPs	192
Total	16,800
Balance Energy requirement	2,435

The balance requirement of energy has to be sourced from traders and liquid fuel stations. Considering the high cost of generation from liquid fuel stations, the Commission has followed an approach of limiting the off-take to the bare minimum required and the balance required to be procured from the market through traders and exchange. The Board was also informed that already some of contracts for purchase of power for the ensuing year has been concluded. Accordingly, the Commission estimates the off take from internal liquid fuel stations and IPPs as shown below:

Source	Gross Energy (MU)	Net Energy (MU)	Fixed costs (Rs.crore)	Variable charges (Rs./kWh)	Variable Charges (Rs. crore)	Total Costs (Rs. crore)
BDPP	88	85	-	9.11	80.19	80.19
KDPP	117	111	-	9.65	112.96	112.96
RGCCPP	622	622	210.20	10.29	640.04	850.24
BSES	0	0	71.50	-	-	71.50
KPCL	20	20	5.74	10.77	21.54	27.28
Total	847	838	287.44		854.73	1,142.17

The balance energy requirement of 1597MU needs to be procured through short term purchase. The Board has estimated that the maximum import capability will be only 2015MU. However, due to the possibility of commissioning of Koodamkulam Station, the congestion in the S2 regions will be considerably relieved and more energy can be sourced from short term sources. Hence, the Commission is of the view that additional demand if any after sourcing from internal hydro, LSHS stations and CGS can be met through short term procurement from traders/exchange.

Hence, the expected expenses towards purchase through short term sources is **Rs.719.69 crore for 2012-13.**

KSEB in their petition, proposed to purchase 2015MU from traders. KSEB stated that the average rate of purchase is Rs.4.50 per unit. The proposed quantity is the maximum possible to import from traders considering the congestion in S1 & S2 region. According to KSEB the maximum firm import capacity through interstate feeders of KSEB is about 1300MW only. If the 400kV substation at Mannukkad (Palakkad) is commissioned it will increase to 1500MW.

The Commission has noted that the Mannukkad (Palakkad) substation has been Commissioned in February 2012. Further, as and when the Koodamkulam is commissioned, the corridor constraints will be reduced in the southern region. Hence, the import capability will improve substantially in the year 2012-13 compared to the projections of KSEB which was made in December 2011.

The Board has reported that Lol has been issued for procuring about 275MW for the month of April 2012, 350MW for May 2012, and 110MW for June 2012. Further, Lol has issued for 100 MW RTC with M/s NVVN @ Rs.4.47 perunit from June 2012 to May 2013. Another Lol for 150MW from 5:00hrs to 23hrs through Global Energy during the period from October 2012 to May 2013 has also been issued.

The Board in their letter dated 1-3-2012 has reported that re-tendering for Case -1 Bidding has been initiated by modification of RFP & PPA documents, for which the Board will approach the Commission. The revised schedule is given in which the date of issue is given as 1-3-2012 and completion of tendering process is on 1-7-2012. **So far the Board has not approached the Commission and it can be concluded that the Case 1 bidding is still not completed.**

The Summary of approved generation and power purchase is as shown below:

Summary of approved power purchase and generation for 2012-13

Source	Energy Produced /Purchased	Auxiliary Consumption	External Loss	Aux consumption/ External Loss	Net Energy Input to KSEB T&D system	Fixed Cost	Incentive, Tax, etc.	Variable cost /Unit	Total Variable cost	Total Cost
	MU	MU	MU	%	MU	Rs. Cr	Rs. Cr	Rs/kWh	Rs. Cr	Rs. Cr
KSEB Internal										
Hydel	6993	36		0.50%	6954					
Wind -Kanjikode	2	0		0.00%	2					
BDPP	88	3		2.50%	85			9.11	80.19	80.19
KDPP	117	6		2.50%	111			9.65	112.96	112.96
Sub total	7200	45			7152				193.15	193.15
Power purchase										
(a) CGS										
Thalcher - II	3114		156	5.01%	2958	237.94	20.00	2.35	731.73	989.67
NLC- Exp-stage-1	436		22	5.01%	414	60.80		1.79	78.10	138.90
NLC-II- Stage-1	389		19	5.01%	369	23.97		1.95	75.76	99.73
NLC-II- Stage-2	553		28	5.01%	526	34.10		1.95	107.90	142.00
RSPTS Stage I & II	2359		118	5.01%	2241	141.28		1.65	389.28	530.56
MAPS	129		6	5.01%	122	25.51			0.00	25.51
KAIGA Stg I	243		12	5.01%	231	73.64			0.00	73.64
KAIGA Stg II	225		11	5.01%	214	68.28			0.00	68.28
Simhadri Exp	610		31	5.01%	579	99.35		2.35	143.32	242.67
Farakka STP	439		22	5.01%	417	34.42		2.35	103.14	137.56
Kahalgon	227		11	5.01%	216	20.42		2.35	53.46	73.88
Talcher-I	253		13	5.01%	241	21.74		2.35	59.53	81.27
NLC - II Exp	294		15	5.01%	279	29.39		1.79	52.61	82.01
Vallur JV with	188		9	5.01%	178	18.76		2.00	37.52	56.27
Koodamkulam	700		35	5.01%	665			3.19	223.30	223.30
Sub total (CGS)	10159		509		9650	889.60	20.00		2055.65	2965.25
Wind and Other IPPs										
Wind	74				74			3.14	23.09	23.09
Ullumkal	34				34			2.00	6.80	6.80
MP Steel	41				41			2.31	9.42	9.42
Irukkikkanam SHP	8				8			2.70	2.13	2.13
PCBL	36				36			2.02	7.27	7.27
Traders	1599				1599			4.50	719.69	719.69
Sub total	1792				1792				768.40	768.40
IPPS										
RGCCPP	622				622	210.20		10.29	640.04	850.24
BSES	0				0	71.50			0.00	71.50
KPCL	20				20	5.74		10.77	21.54	27.28
Sub total	642				642	287.44	0.00		661.58	949.02
Total	19792		509		19235	1177.04	20.00		3678.78	4875.82

Source	Energy Produced /Purchased	Auxiliary Consumption	External Loss	Aux consumption/ External Loss	Net Energy Input to KSEB T&D system	Fixed Cost	Incentive, Tax, etc.	Variable cost /Unit	Total Variable cost	Total Cost
	MU	MU	MU	%	MU	Rs. Cr	Rs. Cr	Rs/kWh	Rs. Cr	Rs. Cr
Transmission charges- PGCIL										
CGS					0.00	293.22	20.41		0.00	313.63
Kayamkulam					0.00	12.20			0.00	12.20
Sub total						305.42	20.41		0.00	325.83
Sub total power purchase	12592		509		12083	1482.46	40.41		3485.62	5008.49
Total	19792	45	509		19235	1482.46	40.41		3678.78	5201.65

Monthly generation schedule

Based on the data furnished by the Board, the month wise energy approved for the purpose of estimating the fuel surcharge in accordance with KSERC (fuel surcharge formula) Regulations 2009 is given in the Annexure V.

The Board shall take all out effort to schedule generation and power purchase in accordance with the principles under Section 61 of the Electricity Act 2003 to minimize the cost to the consumers. The Commission expects the Board to utilize the hydro resources in a prudent manner so that shortages are minimized in summer months and trends in the short term power markets are utilized for commercial advantage. The dependence of liquid fuel stations shall be limited to the minimum.

The Board has not proposed any generation from BSES. The possibility of trading the generation from liquid fuel stations so as to recover the fixed Cost may be explored. The Commission would also urge the Board that considering the completion of the term of PPA, the plant has to be in full operating condition. Hence Board should ensure that the maintenance of the plant is done as per PPA terms so that the machines are maintained in proper condition.

The Commission is not happy with the progress of Case 1 bidding process undertaken by the Board. The Commission had suggested to the top management of the Board to monitor the process closely. However, still the bidding process is not yet concluded. Considering the cost and volatility of power in the short term market, Board should seriously ensure the case 1 bidding option aggressively.

The Commission would also urge that the commercial exploitation of the coal block allotted for the State at Baitharani and the proposed Cheemeni project where KSEB is the primary stakeholder should be pursued for meeting the long term power requirements of the State.

6.3 Interest and financing charges:

The Board has made a detailed proposal on interest and financing charges and proposed change in approach for claiming interest charges. The closing balance of loans from financial institutions and existing bonds as on 31-3-2011 was Rs.1066.5 crore as shown below:

Sl.No	Item	Opening Balance (Rs. Cr)	Borrowing (Rs. Cr)	Redemption (Rs. Cr)	Closing Balance (Rs. Cr)
I	Existing Bonds	20.90	-	10.45	10.45
II	Long term loans	926.92	78.53	449.40	556.05
III	Short term loans	461.67	500.00	461.67	500.00
IV	Loans from Financial Institutions(II+III)	1,388.59	578.53	911.07	1,056.05
V	Total (I+IV)	1,409.49	578.53	921.52	1,066.50

The Board has stated that the capital investment for the year 2010-11 was Rs.995.15 crore, which is about 98.47% of the amount proposed in the ARR. The Board could reduce the capital liabilities and was able to meet the capital expenditure through the following measures:

- (i) An amount of Rs 389.17 crores was available during the year 2010-11 as maturity proceeds of the fixed deposit of Rs 295.00 crores made during the year 2007-08. This was made out of the operating surplus during the year 2007-08.
- (i) KSEB had retained the section-4 electricity duty amounting to Rs 290.12 crores as additional resources and utilized the same for capital payments.
- (ii) KSEB had utilized all internal resources including depreciation, return on equity etc for meeting the capital liabilities etc.
- (iii) Further, Rs 190.00 crores was collected as fuel surcharge @ Rs 0.25 per unit during the year 2010-11.
- (iv) In addition to the above, KSEB has deferred the payment of current liabilities, which are not due for payment, to the extent of Rs

829.83 crores during the year 2010-11 including duties payable to Government.

The revised target for capital expenditure for 2011-12 is Rs.1189.27 crore as against Rs.1036 crore proposed by the Board. Considering the lower interest of short term borrowing, the Board has availed short term funding sources to meet the long term sources. But the interest rates for short term sources have also increased in the recent past. According to the Board as on 30-9-2011, the outstanding short term loans is Rs.600 Crore. Further Rs.500 crore at a rate of interest of Rs.11.5% is proposed to avail in October 2011 to meet the capital liabilities. In addition, an overdraft of Rs.1200 crore was availed against the Fixed Deposits created in 2007-08 and 2008-09. According to the Board, outstanding borrowing as likely to increase to Rs.1669.17 crore by the end of 2011-12 as shown below:

Interest Charges on loans and bonds for 2011-12

Sl. No.	Particulars	Rate of Interest in %	Balance at the beginning of the year	Amount Received during the year	Amount Redeemed during the year	Balance outstanding at the end of the year	Interest for the year
			(Rs.Cr)	(Rs.Cr)	(Rs.Cr)	(Rs.Cr)	(Rs.Cr)
I	Loans from others secured						
	KSE Bond	11.50 - 13.00	10.45	0.00	10.45	0.00	1.25
	REC	7.00 - 11.75	135.77	0.00	17.73	118.04	14.51
	LIC	9.00	16.00	0.00	2.00	14.00	1.38
	PFC	6.00 - 9.00	5.79	0.00	5.79	0.00	0.30
	Subtotal		168.01	0.00	38.24	132.04	17.44
II	Loans from others unsecured						
	LIC	9.00	34.39	0.00	12.01	22.38	2.97
	REC	7.00 - 11.75	224.26	0.00	42.24	182.02	23.96
	KPFC	6.25 - 12.25	0.02	0.00	0.02	0.00	0.00
	PFC-R-APDRP-Part A	11.50	64.31	16.25	0.00	80.56	8.80
	Short Term Loans	11.50	500.00	100.00	0.00	600.00	57.50
	PFC-R-APDRP-Part B	11.50	75.51	76.66	0.00	152.17	15.30
	Subtotal		898.49	192.91	52.00	1037.13	108.53
	Additional borrowing 11-12 (October to March)	11.50	0.00	500.00	0.00	500.00	28.75
	Total		1066.50	692.91	90.24	1669.17	154.71

According to the Board, the additional fund requirement for 2011-12 will be Rs.692.91 crore. Based on the above position, the Board has estimated the fund requirements for 2012-13. The Board has stated that the Government has approved in principle the second transfer scheme and approved the netting off of dues between KSEB and the Government vide Government Order No.(MS).No.42/2011/PD dated 3-11-2011. According to the Order, the net amount due to the Board from Government is Rs.1600 crore. A total amount of Rs.3024

crore will be released to the KSEB Limited by the Government for funding the terminal liability. Out of the above, Rs.2500 crore will be adjusted by the Government in 10 years at Rs.250 crore per year by the adjustment of electricity duty payable to the Government. Hence, the Board may not have any internal funding sources from now onwards.

Accordingly, the Board has proposed to borrow Rs.1200 crore for funding the capital investment. So the estimated interest charges on loans and bonds for the year 2012-13 is given below:

Interest charges on Loans and Bonds proposed for the year 2012-13
(Rs. in Crores)

Sl. No.	Particulars	Rate of Interest in %	Balance at the beginning of the year	Amount Received during the year	Amount Redeemed during the year	Balance outstanding at the end of the year	Interest for the year
I	Loans from others secured						
	REC	7.00 - 11.75	118.04	0.00	17.00	101.04	12.37
	LIC	9.00	14.00	0.00	2.00	12.00	1.21
	Subtotal		132.04	0.00	19.00	113.04	13.58
II	Loans from others unsecured						
	LIC	9.00	22.38	0.00	9.19	13.19	1.87
	REC	7.00 - 11.75	182.02	0.00	42.93	139.09	15.20
	PFC-R-APDRP-Part A	11.50	80.56	0.00	0.00	80.56	9.26
	PFC-R-APDRP-Part B	11.50	152.17	0.00	0.00	152.17	17.50
	Subtotal		437.13	0.00	52.12	385.01	43.83
	Additional borrowing 12-13	11.50	1100.00	1200.00	0.00	2300.00	195.50
	Total		1669.17	1200.00	71.12	2798.05	252.91

Considering the revenue gap for 2012-13, the interest on working capital is proposed as Rs.96.25 crore. The interest payable on the security deposit is estimated as Rs.74.55 crore and the outstanding security deposit as on 1-4-2011 estimated at Rs.1242.54 crore. The rebate payable to the consumers is estimated as Rs.2.5 crore for 2012-13. The interest on Provident Fund balance is estimated as Rs.83 crore considering the balance of Rs.688.30 crore as on 31-3-2011. Rs.1 crore is earmarked as cost of raising finance. The guarantee commission payable to the Government is estimated as Rs.1 crore, for the balance loan of Rs.132.04 crore. The Board also stated that the entire amount of Rs.63.22 crore guarantee commission payable to the Government till 2008 is netted off. The total interest and financing charges proposed by the Board for 2012-13 is given below:

Summary of Interest and Finance Charges (Rs.Crore)

Particulars	2010-11	2011-12		2012-13
	Accounts	SERC approval	Revised	Estimate
I - Interest on outstanding Loans & Bonds	120.85	109.42	154.71	252.91
II - Interest on Security Deposit	64.74	64.73	64.73	74.55
III - Other Interest and Finance Charges				
Interest on borrowings for working capital	35.78	15.00	60.00	96.25
Rebate to consumers for timely payment	1.57	3.25	2.00	2.50
Interest on PF	50.08	55.25	75.00	83.00
Cost of raising finance:	0.00	1.00	1.00	1.00
Guarantee Commission		1.61	1.28	1.00
Bank Charges	7.89	15.00	8.00	10.00
Total of (III)	95.31	91.11	147.28	193.75
Grand Total (I+II+III)	280.91	265.26	366.72	521.21

6.3.1. Objections of the stakeholders

The HT & EHT Association strongly objected to the claims of interest and financing charges. According to the Association, as per the ARR&ERC petition, the Board is holding on to the fixed deposits, meant for creating pension funds. However, the Board has not yet taken any specific approval for the same. Further over the last few years, the Board has been claiming that there is substantial revenue gap, but at the same time stating the surplus cash is being parked as fixed deposits, which proves that over the years the Board is in surplus. As per the allowable capital expenditure, the Association estimated that interest allowable is only Rs.169 crore instead of Rs.196 crore claimed by the Board. The Association further stated that there is no requirement of providing interest on working capital. According to the Association, Board is having positive cash flow considering non-cash working capital. Hence, they requested to disallow the interest on working capital of Rs.96 crore claimed by the Board.

Shri. Jose Mathew has mentioned that cost on account of non-collection of dues shall not be allowed to pass on to the consumers. If such cost is passed on then it amounts to penalising the honest consumers. If the dues are not collected on account of directions of the Government, the additional cost has to be passed on to the Government.

6.3.2. Analysis and decision of the Commission

As per the filing, the estimated opening balance of outstanding liabilities as on 1-4-2012 is Rs.1669.17 crore, of this Rs.132.04 crore is secured loans and Rs. 437.13

crore unsecured loan from PFC, LIC, REC etc., The balance Rs.1100 crore is short term loans. In 2011-12, the Board proposed additional borrowing of Rs.692.91 crore and Rs.90.24 crore as redemption. The objectors have stated that the estimates of the Board on interest and financing charges are not reasonable. The Board since last year onwards (the ARR&ERC petition of 2011-12) proposed borrowing as the means for meeting the capital expenditure.

Considering the performance in previous years, the Commission estimated the maximum capital expenditure possible for the year 2012-13 will be Rs.980 crore. The Commission also notes that in addition to the direct borrowing, the Board has funds such as addition to Provident Fund and security deposits. Vide letter dated 1-3-2012, the Board has reported that the borrowing resorted (other than Overdrafts) in 2011-12 (upto January 2011), is Rs.301.62 crore. Thus, the additional borrowing in 2011-12 will be a maximum of Rs.500 crore only as against Rs.692.91 crore projected by the Board. So the outstanding balance of borrowing as on 1-4-2012 will be Rs.1476.26 crore only as against Rs.1669.17 crore proposed by the Board.

As per the details given by the Board the addition to security deposit is Rs.210 crore and addition to PF balance is about Rs.90 Crore. The amount proposed to redeem is Rs.71.12 crore. Till revesting of assets in the newly formed company and creation of pension fund, the retained electricity duty is also available. In addition, depreciation and RoE are also available to the Board as sources of fund. Even if the retained duty and additions to security deposit & PF are taken into consideration, the additional borrowing required to meet the capital expenditure of Rs.980 crore, will be about Rs.500 crore only. Accordingly, the total interest charges required for 2012-13 as per the estimates of the Commission is given below:

Approved Interest charges loans and bonds for 2012-13 (Rs. Crore)

Particulars	Rate of Interest in %	Balance at the beginning of the year	Amount Received during the year	Amount Redeemed during the year	Balance out standing at the end of the year	Interest for the year
Secured loans	6.00 to 13.00	132.04	-	19.00	113.04	13.48
Unsecured loans	6.25 to 12.25	437.13	-	52.12	385.01	43.16
Short Term borrowings	11.5	907.09	500.00		1,407.09	121.49
Total interest charges		1,476.26	500.00	71.12	1,905.14	178.14

The Board has proposed interest on working capital of Rs.96.25 crore. The consumers have objected to this since according to them there is no requirement of

additional working capital borrowing based on the projections of the Board. The Board has already filed petition for revision of tariff. However, considering the level of revenue gap proposed by the Board, the Commission is of the view that an adhoc provision of Rs.20 crore may be allowed to meet the short term fund requirements.

The Board has projected other items such as interest of security deposit (Rs.74.55 crore), rebate for prompt payment (Rs.2.5 crore), interest on provident fund balance (Rs.83 crore), bank charges (Rs.10 crore). The Commission approves the estimates of the Board in this regard. Thus, the total interest and financing charges approved for 2012-13 is Rs.370.19 Crore as shown below:

Approved Interest and financing charges for 2012-13

Particulars	2012-13 (Rs.crore)	
	Estimate	Approved
I - Interest on Loans & Bonds	252.91	178.14
II - Interest on Security Deposit	74.55	74.55
III – Other Interest and Finance Charges		
Interest on borrowings for working capital	96.25	20.00
Rebate to consumers for timely payment	2.50	2.50
Interest on PF	83.00	83.00
Cost of raising finance:	1.00	1.00
Guarantee Commission	1.00	1.00
Bank Charges	10.00	10.00
Total of (III)	193.75	117.50
Grand Total (I+II+III)	521.21	370.19

6.4 Depreciation

The Board has claimed the depreciation of Rs.607.42 crore as per the revised CERC norms. The estimated GFA for 2011-12 and 2012-13 for calculating depreciation as given by the Board is as follows.

Gross Fixed Asset from 2010-11 to 2012-13

Asset Class	2010-11	2011-12	2012-13
	(Rs.Cr)	(Rs.Cr)	(Rs.Cr)
Land & Rights	306.27	325.62	354.90
Buildings	536.50	555.73	605.71
Hydraulic Works	974.37	1073.24	1169.75
Other Civil Works	325.36	391.41	426.61
Plant & Machinery	3767.85	4058.69	4424.29
Cable Network etc	4205.45	4720.60	5145.11
Vehicles	13.57	14.56	15.87
Furniture and Fixtures	15.04	16.05	17.49
Office Equipments	40.62	47.86	52.16
Assets not belonging to the Board	7.14	7.14	7.14
Total	10192.17	11210.90	12219.04

Based on projection of assets as shown above, the depreciation is worked out by the Board is as follows:

Proposed Depreciation expenses for 2012-13

Asset Class	Depreciation rates	Amount	
		2011-12 (Estimate)	2012-13 (Estimate)
	%	Rs. Cr	Rs. Cr.
Land and Land Rights	0.00	0.00	0.00
Buildings	3.34	18.56	20.23
Hydraulic Works	5.28	56.67	61.76
Other Civil Works	3.34	13.07	14.25
Plant and Machinery	5.28	214.30	233.60
Lines, Cable Network, etc.	5.28	249.25	271.66
Vehicles	9.50	1.38	1.51
Furniture and Fixtures	6.33	1.02	1.11
Office Equipments	6.33	3.03	3.30
Total		557.28	607.42

6.4.1. Objections of stakeholders

According to the Association, the CERC (Terms and conditions of Tariff) Regulations 2009 is not applicable in Kerala, since the Board has to provide vintage of assets and the depreciation rates after 12 years of commercial operation has to be spread over the balance useful life of the assets. Further, FOR did not adopt the depreciation rates as in the case of CERC 2004 norms. So the depreciation may be based on CERC 2004 norms. They further claimed that there is no necessity for providing depreciation for assets created out of contribution. As per their estimates the applicable depreciation for 2012-13 will be Rs.282 crore only.

6.4.2. Analysis and decision of the Commission

The Commission has noted the objections of the stakeholders. The Commission has suo-motu taken up the proceedings on clawing back the depreciation claimed on assets created out of consumer contribution. The order on the same has been issued on 13-4-2012. As per the decision of the Commission, the Board is not eligible for the depreciation on contributions and grants. As per the ARR filing, the contributions/grants as on 1-4-2012 is Rs.3558.5 crore. The total Gross Fixed Assets as on 1-4-2012 is Rs.11,211 crore. ie., the contribution is about 31.7% of GFA. At present the details of contribution/grants relating to each function is not available. Hence, on a broad level, it can be concluded that about 29% of the Gross

Assets are funded by the grants and contribution and the balance is only eligible for depreciation. Accordingly, the Commission **provisionally allows Rs.414.67 crore** as the depreciation for 2012-13.

The Commission would like to point out that the depreciation as per the CERC norms revised from 2009 are allowed to the Board from 2009-10 on a conditional basis. The Commission in its order on ARR&ERC for 2009-10 and 2010-11 has flagged the issue of vintage of assets and application of CERC norms for distribution in the absence of definite communication from FOR on adopting revised CERC norms for distribution. The specific provision of depreciation as per the CERC(Terms and conditions of tariff) Regulations 2009 is given below:

17. Depreciation. (1) *The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.*

(2) *The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.*

Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site:

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.

(3) *Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.*

(4) *Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system:*

Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.

(5) *In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative*

depreciation as admitted by the Commission upto 31.3.2009 from the gross depreciable value of the assets.

(6) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

As per the revised CERC norms, depreciation is linked to repayment period of loans/repayment obligations and the balance depreciation is spread over the useful life of the assets. In the ARR&ERC Order 2009-10, the Commission has pointed out that in the absence of estimation of depreciation as per the above provision is not possible due to non-availability of data from the Board or otherwise, the Commission would revert to 2004 norms in the truing up process. The Commission would reiterate the above position this year also. Further as mentioned in the 2010-11 Order, depreciation applicable for distribution is not yet formulated by FOR. Unless a clarity on the issue is available, the Commission may resort to old norms for distribution in the truing up process.

6.5. Employee cost

The Board has projected the employee cost for 2012-13 as Rs.2231.46 crore. The Board has revised the employee cost for 2011-12 as Rs.1912.58 crore. In comparison with the projections, the actual employee cost for 2010-11 is Rs.1712.80 crores. The approved expenses in 2010-11 was only Rs.1247.31 crore

In the petition, KSEB has mentioned that as on 31-3-2011, the total number of employees is 29885, of which 24123 nos are in distribution. The number of employees reported as on 31-9-2010 was 28,157 and as on 31-3-2009 was 27,089. The change in employee numbers over the years is given below:

Change in number of employees

Functional Unit	31-3-2009	31-9-2010	31-3-2011	1-1-2012
Generation	1516	1514	1737	
Transmission	2875	2757	3026	
Distribution	21690	22946	24123	
Corporate Office	1008	940	999	
Total	27089	28157	29885	30634
<i>Increase over previous period</i>		1068	1728	749

In order to support the spiraling employee costs, the Board has mentioned that KSEB is continuing as a single entity and wage and service conditions of employees prior to the enactment of the Electricity Act are continuing. The Board had also

stated that as per the para (X) of the directions issued by the State Government under Section 108 of the Act, while approving the revenue expenditure, the fluctuations in DA, pay revision etc., shall also be considered.

The Board has entered into a wage agreement with the registered trade unions on 28-2-2011 for revision of pay and allowances with effect from 1-8-2008. The revised pay has been distributed from April 2011 onwards. The revision of pay for officers was approved by the Government vide order dated 23-11-2011. However pension revision has not been implemented yet. Since the pay revision exercise is not yet completed, the cost for 2012-13 is estimated based on basic pay & DA at pre-revised rates with adequate provisions given for pay revisions. The actual basic pay for 2010-11 was Rs.406.59 crore, and assuming 5% increase in basic pay, the Board estimated the basic pay for 2012-13 as Rs.448.26 crore. The Board has assumed 12% increase in DA from January 2012 and two further installments @10% in July 2012 and January 2013. The total DA will be about 150% by 31-3-2013 at the pre-revised scale.

The additional liability on account of pay revision for the serving employees is estimated at Rs.14.51 crore per month and Rs.174.12 crore has been made towards the pay revision for 2012-13. The provision made for earned leave encashment for the year 2012-13 is Rs.82 crore and the actual for 2010-11 is Rs.63.45 crore. The employee cost estimated for 2012-13 by the Board is as shown below:

Details of salary and benefits of serving employees proposed by the Board

Sl No.	Particulars	2010-11	2011-12	2012-13
		(Rs. Cr)	(Rs. Cr)	(Rs. Cr)
A.	Basic Pay	406.59	426.92	448.26
B.	DA at the beginning of the year *	317.14	452.53	582.75
	DA released/ provision made during the year	40.79	51.23	44.83
C	Other allowances (HRA, Project allowances)	27.62	30.00	32.50
	Over Time/ holiday wages	0.20	0.22	0.24
	Bonus	5.37	6.00	6.50
	Medical reimbursements	3.80	4.00	4.50
	Compensation	0.30	0.32	0.35
	Leave salary & Pension Contribution	0.09	0.12	0.14
	Earned Leave encashment	63.45	72.00	82.00
	Staff Welfare	1.10	1.25	1.30
D	Addl provisions made for pay revision, which is due from July/Aug-2008	107.15	140.26	174.12
E	Total	973.60	1183.60	1377.49
F	Less amount capitalized from employee cost	90.13	100.64	116.37
G	Net Employee cost	883.47	1082.96	1261.12

* DA as on 31-3-2010 = 78%

DA as on 31-3-2011 = 106%

DA anticipated as on 31-3-2012= 130%

DA anticipated as on 31-3-2013= 150%

The Board has given supporting details for justifying the employee costs. According to the Board, the consumer strength and energy sales have increased by 35.49% and 55.39% respectively in 2011-12 compared to 2004-05, but the number of employees increased only by 21.28% as shown below:

Comparison of employee performance indicators

Year	Consumer Strength			Energy sales			Employee Strength		
	(Lakhs)	% of increase	Cumulative	(MU)	% of increase	Cumulative	(Nos)	% of increase	Cumulative
2004-05	78.00			9384.00			24454.00		
2005-06	83.00	6.41	6.41	10270.00	9.44	9.44	25565.00	4.54	4.54
2006-07	87.10	4.94	11.67	11331.00	10.33	19.77	25894.00	1.29	5.89
2007-08	90.30	3.67	15.77	12050.00	6.35	26.12	25110.00	-3.03	2.68
2008-09	93.60	3.65	20.00	12414.00	3.02	29.14	27089.00	7.88	10.78
2009-10	97.43	4.09	24.91	13971.09	12.54	41.68	28049.00	3.54	14.70
2010-11	101.68	4.36	30.36	14670.52	5.01	46.69	28157.00	0.39	15.14
2011-12	105.68	3.93	35.49	15947.00	8.70	55.39	29885.00	6.14	21.28

The Board has also made a comparison of total expenses and employee costs (without pension), which shows that employee cost is about 11% in 2006-07 and in 2012-13 has increased to 15.07% of the total expenses. According to the Board, the main reason for increase in employee cost is the inflationary factor as well as business growth and the performance factors imposed by the Commission. According to the Board, two indicators to measure the employee productivity are the number of consumers served per employee and employee per MU of energy sold which is shown below:

Performance analysis of employee cost

Year	Consumer per employee
	(Nos)
2003-04	295
2004-05	319
2005-06	324
2006-07	337
2007-08	360
2008-09	346
2009-10	347
2010-11	361
2011-12	354

Pension liabilities:

As per the details given by the Board, the total number of pensioners as on 31-3-2010 is 30567 and as on 31-3-2011 is 31108. About 190 employees retired till 30-9-2011 and about the same number is expected to retire till the end of the financial year. Board stated that pension claims are payable and pension is also being revised as and when pay revision is applicable to the serving employees. The pension expenses projected by the Board for 2012-13 is Rs.853.97 as shown below.

Proposed pension liabilities for 2012-13

Particulars	2010-11	2011-12	2012-13
	(prov)	(Revised)	
	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)
Annual Pension	518.39	601.13	692.52
Commutation	31.54	35.20	37.40
DCRG	23.01	26.40	28.60
Medical, interim relief and festival allowance	4.51	4.97	5.45
Provision for pension revision	30.41	50.03	80.00
Provision for Gratuity	131.34	10.00	10.00
Total	739.20	727.73	853.97

The Board also stated that the Kerala Service Rules and other service conditions as applicable in the Government are applicable to employees of KSEB and pension liabilities of KSEB remain unfunded and this liability has been accounted over the years on the principle of “pay as you go” as in Government. The total employee cost estimated by the Board is shown below:

Estimated employee cost for 2012-13

Particulars	2009-10	2010-11	2011-12
	(prov)	(Revised)	
	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)
Salary and allowance to serving employees	973.60	1184.85	1377.49
Terminal benefits	739.20	727.73	853.97
Total	1712.80	1912.58	2231.46

The Board has stated that the Government vide the order G.O (Ms) No. 42/2011/PD dated 03-11-2011 has ordered ‘in principle approval’ of Kerala Electricity Second Transfer (Scheme Re-vesting) 2011, modality of funding of terminal liability. Since the order was issued based on the actuarial valuation of pension liabilities as on 31-03-2008, Board is in the process of re-assessing the actuarial valuation of the pension liabilities as on 31-03-2011 after considering the impact of recent pay

revision. Once all aspects of the funding of terminal liability are finalized by the Government, the same may be presented before the Commission for approval.

6.5.1. Objections of the Stakeholders

The HT-EHT Association, among other objectors, have strongly commented on the increasing employee expenses of the Board. The Association objected to the contentions of the Board that, DA cannot be linked to WPI-CPI index and DA payments have to be made whenever Government announces it. The Association stated that Board has been continuously claiming on the constitution of Pension fund, so far the same has not been done, even though no-one has objected to it. According to the Association, employee expenses have increased by about 403% from 1999-00. The directions of the Commission for manpower studies to determine appropriate staffing levels have so far not been complied with. Even with unmanageable employee expenses, the Board is increasing the staff strength. The average employee cost is projected as Rs.62224 per month including pension liabilities. Industries in general have succeeded in curtailing the employee expenses by increasing productivity and reducing the staff, but simultaneously increasing the production capability. The per unit cost of employees now is Rs.1.30/kWh. Hon. APTEL in Appeal Nos.4, 13, 14, 23,25,26,35,36,54 &55 have categorically mentioned that there is no obligation on the part of the Board to extend the same salary and allowance to employees of the Board and salaries are to be linked to performance of employees. Hence pay revisions are not mandatory and automatic, but are discretionary. The Association suggested that in the absence of creation of pension fund, the entire terminal liabilities have to be disallowed. Further the employee costs based on WPI-CPI weighting, may be allowed Rs.947 crore, which is about 7.77% increase over previous year.

Shri. A.R.Satheesh mentioned that employee cost has been increasing over the years at alarming rates. The cost has increased by 3.32 times over 10 years. The cost of serving employees alone has increased by 287%. The average monthly salary of employees has increased from Rs.13515 in 2003-04 to Rs.38397 in 2012-13. The number of employees has increased by 21%, consumer per employee has come down. Based on his calculation, he stated that the revenue from own generation is just sufficient to meet the own employee cost. According to him, paying high salary should be linked to productivity increase.

M/s Binani Zinc argued that per unit employee cost is high and is Rs.1.30 per unit out of the total revenue of Rs.4 per unit. In other states it is only 40 to 70 paise per

unit. Consumer Vigilance Centre in their objections, mentioned that employee cost has been increasing over the years. The details of the employees and salaries of the Board is not available. Though the maintenance works are mostly undertaken by the contract staff, there is no reduction in employee costs.

KSEB Officers Association pointed out that productivity gains achieved in KSEB over the years is sufficient to meet the total employee costs of the existing employees. According to the Association, the reduction in employee cost made by the Commission in the previous order indicates that the perceived principle of the regulations is far from objective. However, if the principle of price cap regulations is applied on the proposal of KSEB, it can be established that there is substantial efficiency gains. The KSEB Officers Association stated that the contribution of O&M cost of KSEB in the price of electricity has increased in absolute terms from 112 paise per unit in 2008-09 to 156 paise per unit in 2012-13 that is by 38%. However, the increase in inflation during the same period is 44%, which shows that the efficiency gains is 6%, which translate to 7 paise per unit. Similarly, the efficiency gains in employee costs 19% or 11 paise per unit. Hence the application of price cap regulation is not based on true RPI-X principles. Hence, they advocated that the approval of ARR&ERC of KSEB for 2012-13 shall be after duly considering the evolving regulatory practices in India and without resorting to arbitrary methodologies.

6.5.2 Analysis and decision of the Commission

Many of the stakeholders continuously expressed their concern over the increase in employee cost. On the other hand, Employee Associations and organizations of KSEB provided justifications on the increasing employee cost. The Commission in the previous ARR&ERC Orders had dealt with this issue in detail. However, the issue remains as such and no concrete efforts are seen made to address the issue in an effective manner. The proposal of the Board this year is also not different and intake of employees continued as the filing itself shows that in a span of about 6 months, more than 1700 employees are added to the system on a net basis (without considering employees added due to retirements). This has been presented by the Board in the public hearings as shown below:

Details of employee strength

Category	Employee strength		Increase
	As on 31-03-2008	As on 01-01-2012	
Chief Engineers (Ele) & (Civil)	15	16	1
Deputy Chief Engineer (Ele & Civil)	67	71	4
EE (Ele)	215	217	2
EE (Civil)	51	51	0
AEE (Ele)	498	596	98
AEE(C)	145	161	16
AE(Ele)	1713	2057	344
AE (C)	192	208	16
Sub Engineers (E)	2208	2700	492
Sub Engineer (C)	395	452	57
Oversear (Ele)	2021	4665	2644
Oversear (C)	24	35	11
Lineman	7586	8406	820
Electricity Worker	1868	3695	1827
Meter Readers	1596	817	-779
Total Technical Staff	18594	24147	5553
SA	2745	2634	-111
SS	831	1059	228
FCA	244	228	-16
JA/ Cash	933	1109	176
OA	687	427	-260
Drivers	433	318	-115
PTC	435	414	-21
Others	197	298	101
Total non-technical staff	6505	6487	-18
Grand total	25099	30634	5535

The Commission since inception had issued several directions to KSEB to control/limit the expenses and to improve the productivity so as to justify high employee costs. But the increase in number of employees has been continuing. The Board has not paid much attention to the directions of the Commission as well as to the concerns expressed by the consumers on the increasing employee cost. The employee cost now consumes about 40% of the revenue and about Rs.1.36 per unit. The Board has not implemented the directions of the Commission regarding the wage negotiation. The direction on initiating a manpower was not complied with even after two years. Without a scientific study on man power requirements, the recruitments are continuing and about 1000 persons are added every year.

Considering these factors into consideration, the Commission has decided to benchmark the employee expenses based on CPI-WPI basis in the ARR&ERC order for 2011-12. The Commission is of the view that the method is to be continued for

this year also. As per the Government of India reports, the inflation based on CPI and WPI recorded in the past is as follows:

Recorded CPI and WPI indices over the years

Year	WPI*	Yearly Increase	CPI	Increase
2004-05	100.0			
2005-06	104.5	4.44%		
2006-07	111.4	6.59%	125.00	
2007-08	116.6	4.74%	132.75	6.20%
2008-09	126.0	8.05%	144.83	9.10%
2009-10	130.8	3.81%	162.75	12.37%
2010-11	143.3	9.50%	179.75	10.45%
2011-12*	155.5	8.56%	193.80	7.82%

*WPI upto February, 2012; CPI upto Jan 2012

Based on the above, the inflation recorded based on CPI is 7.82% and WPI is 8.56% for 2011-12. On 70:30 basis, the composite increase would be about 8.03%. Considering the trends in inflation, the Commission uses the inflation as prevailing in 2011-12 for 2012-13 also for estimating the expenses. **However, in the truing up process, the expenses will be allowed based on the actual inflation recorded based on CPI and WPI in 2012-13.**

As in the case of previous year, the Commission used financial year 2008-09 as a base year since latest truing up was carried out for 2008-09. The Commission provides 3% increase in Basic Pay for accounting for increments. The other components are benchmarked based on the 70:30 index (CPI:WPI) for estimating the increase in employee cost. Accordingly, the allowable employee cost for 2012-13 is estimated as follows:

Approved estimate of Employee cost for 2012-13

	(Actual)	Estimates* (Rs. Crore)			Approved expenses (Rs.Crore)
	2008-09	2009-10	2010-11	2011-12	2012-13
Basic Pay Projection	378.70	390.06	401.76	413.82	426.23
<i>Other components</i>					
CPI component (70%)	613.54	689.43	761.45	820.97	885.14
WPI Component (30%)	262.94	272.96	298.90	324.50	352.29
Total	1,255.18	1,352.45	1,462.11	1,559.28	1,663.66
% increase		7.75%	8.11%	6.65%	6.69%

* The figures arrived at for the intermediate years (2009-10, 2010-11 & 2011-12) are relevant only for estimation purpose, and cannot be construed as approved figures. Approved figures for these years are as per the respective ARR&ERC Orders.

Based on the above formula, the approved employee cost for 2011-12 is Rs.1663.66 Crore. The Board shall limit the employee expenses to the approved level. The expenditure over the approved level shall not be passed on to the consumers through tariff. In the truing up process for the year, the allowable employee costs will be refixed based on the actual CPI-WPI for the year 2012-13. However, the Commission has referred this item to the consultants for their study and recommendation. The Commission is prepared to take a relook on the issue.

However, the Commission would like to reiterate the comments made in the previous ARR&ERC order. *The Board has to sincerely venture in for radical internal reforms to control the costs. The reform measures are not aiming at retrenchment or reducing the existing benefits allowed to the employees but to aim at measures especially at the HR level that include redesigning the tasks, re-training, re-tooling, process re-engineering, infusion of proper IT and technology, intervention aiming at improving the efficiency and productivity of employees.*

6.6. A&G Expenses

Administration and General expenses (net of electricity duty) projected by the Board for 2012-13 is Rs.118.85 Crore against Rs.90.14 Crore for 2010-11 (actual). The Section 3(1) duty is estimated as Rs.96.39 Crore. According to the Board, A&G expenses are highly amenable to inflation and business growth. The increase in A&G expenses according to the Board is due to increase in energy sale (7% to 8%) and inflation (9% to 10.5%). Considering business growth and inflation, an increase of 17 to 18% in A&G expenses is proposed for 2011-12 and 2012-13. The A&G expenses proposed by the Board for 2011-12 are as shown below:

A&G expenses proposed for 2012-13 (Rs.Crore)

Sl. No.	Particulars	2010-11	2011-12		2012-13
		Actual	ARR	Revised estimate	Estimate
		(Rs. Cr)	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)
1	Rents, rates and taxes	4.30	5.39	4.75	5.00
2	Insurance	0.38	0.48	0.48	0.50
3	Telephone/telex/internet charges, etc.	3.46	4.83	4.83	4.75
4	Legal charges	3.24	3.61	3.61	3.75
5	Audit fees	2.30	3.00	3.00	2.75
6	Consultancy charges	0.57	0.82	0.82	0.85
8	Other Professional charges	0.26	0.33	0.33	0.33
9	Conveyance and vehicle hire charges	23.99	21.84	26.87	30.09
10	Sub Total (Total of 1to 9)	38.50	40.30	44.69	48.02
11	OTHER EXPENSES				

Sl. No.	Particulars	2010-11	2011-12		2012-13
		Actual	ARR	Revised estimate	Estimate
		(Rs. Cr)	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)
	a) Fees and subscriptions	0.53	0.71	0.71	0.80
	b) Printing & stationary	7.65	10.46	10.46	10.50
	c) Advertisements, publicity etc	7.70	8.46	8.46	9.00
	d) Contributions	1.09	0.61	1.15	1.20
	e) Electricity charges	5.25	5.36	5.36	5.50
	f) Water charges	0.28	0.27	0.27	0.30
	g) Entertainment	0.27	0.28	0.28	0.30
	h) Training expenses	1.58	2.37	2.37	4.50
	i) Miscellaneous expenses	12.71	17.11	17.11	20.00
12	TOTAL OF OTHER EXPENSES	37.06	45.63	46.17	52.10
13	Freight	11.27	17.50	13.52	14.23
14	Other purchase related expenses	3.31	3.85	3.85	4.50
	Total	14.58	21.35	17.37	18.73
15	Ele. Duty u/s 3(l), KED Act	84.42	89.78	90.89	96.39
	GRAND TOTAL	174.56	197.06	199.12	215.24

According to the Board, the reason for increase in the A&G cost is attributed to training and purchase related activities. The Board is imparting training on a large scale for improving efficiency and productivity, training on safety measures, maintenance and skill development in computer applications, modern management, financial techniques. Further, in order to provide electricity to all there is sizable increase in procurement of materials for execution of works, which is reflected in freight, travelling of persons, and purchase related administrative activities.

6.6.1. Objections of stakeholders

The Association stated that like R&M expenses, the A&G expenses shall also be considered only with inflation indexing. They have objected to the miscellaneous charges of Rs.20 crore proposed by the Board. without mentioning the item of expenditure, the Board has proposed Rs.20 crore, which need not be allowed. Hence they suggested that only Rs.73 crore needs to be allowed for A&G expenses.

6.6.2 Analysis and Decision of the Commission

The A&G expenses is a controllable items and hence no escalation over inflation can be allowed for this item. The Commission notes that the actual A&G expenses other than electricity duty in 2007-08 was only Rs.47.81 crore and in 2008-09 was Rs.60.99 crore. In comparison with this, A&G expenses projected for 2012-13 is Rs.118.85 crore. The amount under A&G expenses projected for 2012-13 is almost double compared to the actuals for 2008-09. The amount projected by the Board for this controllable item is much beyond reasonable level. Since there is no visible

efforts taken by the Board for limiting the A&G expenses, the Commission decided to follow the same methodology adopted in the previous year for approving the A&G expenses for 2012-13.

Accordingly, the methodology based on CPI:WPI index for allowing the A&G expenses is used for approving the A&G expenses for 2012-13. **In the truing up process, the expenses will be allowed based on the actual inflation recorded based on CPI and WPI in 2012-13.** The A&G expenses based on the CPI:WPI will be thus worked out as follows:

Approved A&G Expenses for 2012-13

A&G Expenses	(Actual)	Estimates*			Approved expenses
	2008-09 Rs. Crore	2009-10 Rs.crore	2010-11 Rs.crore	2011-12 Rs.crore	2012-13 Rs.crore
CPI weightage (70%)	42.69	47.97	52.98	57.12	61.59
WPI weightage (30%)	18.3	19.00	20.80	22.58	24.52
Total A&G Expenses	60.99	66.97	73.78	79.71	86.11
%age increase		9.80%	10.18%	8.03%	8.03%

** The figures arrived at for the intermediate years (2009-10, 2010-11 & 2011-12) are relevant only for estimation purpose, and cannot be construed as approved figures. Approved figures for these years will be as per the respective ARR&ERC Orders.*

Hence, the A&G expenses to be allowed is Rs.86.11 crore for 2012-13. As per the Order of the APTEL, Electricity duty under Section 3(1) is not included in A&G expenses. Hence the same is not considered.

6.7. Repair and maintenance Expenses:

The Board proposed R&M expenses for the year 2012-13 as Rs.326.07 crore which is 41% more than the actual R&M expenses for 2010-11. The Board has attributed several reasons for this increase. The asset addition have increased by Rs.1954.66 crore as on 31-3-2011 from 2009 level. Further, inflation during the period was in double digits. The functionwise breakup of R&M expenses shows that major reason for the increase is increase in material cost. The Standard rates have changed in 1-4-2010 and labour cost have also revised based on PWD schedule of rates.

Function wise details of expense incurred under Lines, Cable networks etc.

Functional area	2009-10			2010-11			Increase over 2009-10	
	Material Costs	Payment to contractor	Total	Material Costs	Payment to contractor	Total	(Rs.Cr)	(%)
	(Rs.Cr)	(Rs.Cr)	(Rs.Cr)	(Rs.Cr)	(Rs.Cr)	(Rs.Cr)		
Generation	0.04	0.11	0.15	0.00	0.09	0.09	-0.06	-40.00
Transmission	1.18	2.27	3.45	1.68	1.94	3.62	0.17	5.08
Distribution	42.19	55.74	97.93	81.82	66.56	148.38	50.45	51.52
Total	43.41	58.12	101.53	83.51	68.58	152.09	50.56	49.80

There has been an increase of 51.52% on the R&M expenses on lines, cable, networks in the distribution in the year 2010-11 compared to its previous year. The reasons attributed by the Board are given below:

- (i) Standard rates of material prescribed for internal accounting has been revised wef 01.04.2010 in order to reflect the actual cost of materials. There has been substantial increase in material cost by about 80% during the last few years. The previous revision of material rates was done 2004.
- (ii) After the implementation of the KSERC Licensees (Standards of performance) Regulations, KSEB has been giving due care and attention on the maintenance of the distribution system.
- (iii) Excessive increase in labour charges and non availability of labour for manual works involved in maintenance operations.
- (iv) Extension of distribution lines to rural and hilly areas with abundant tree growth.
- (v) All the section offices of the Board have been converted into 'Model Sections' since January-2011. There is a separate wing for maintenance in each model section with one Sub Engineer, two overseers, two lineman and four electricity workers with vehicle.
- (vi) The R&M works is highly susceptible to inflation. The inflation during the year was about 10.53% during the year 2010-11. The month wise details of inflation for the year 2010-11 are given in Table-8-32.
- (vii) Increase in the consumer strength- Number of consumer strength has increased from 97.43 lakhs as on 31-03-2010 to 101.28 lakhs as on 31-03-2011.
- (viii) Increase in the distribution assets from Rs 3529.34 crores as on 31-03-2010 to Rs 4067.19 crores as on 31-03-2011, i.e., an increase of

Rs 537.85 crores during the year 2010-11, which was about 15.24 % on the assets value at the beginning of the FY 2010-11.

Considering asset growth, inflation rate, the Board is anticipating 14% increase for R&M cost of Generation assets and 19% increase of R&M costs of Transmission and Distribution assets for the year 2011-12 and 2012-13. R&M expenses projected for 2012-13 is Rs.326.07 crore as detailed below:

Function wise break up of R&M costs

Particulars	2010-11	2011-12	2012-13
	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)
Generation	19.30	22.00	25.08
Transmission	52.61	62.61	74.50
Distribution	159.94	190.33	226.49
Overall	231.85	274.94	326.07

6.7.1. Objections of stakeholders

The Board's claim of R&M expenses for 2012-13 is about 76% more than the approved level in 2011-12. According to the Association, R&M expenses can only be allowed based on CPI:WPI weighting, and suggested that only Rs.199 crore needs to be allowed as R&M expenses

6.7.2. Analysis and decision of the Commission

The R&M expenses of the Board has been increasing over the years. The Board has stated that the R&M expenses is linked to the increase in assets. However, the Commission in the previous orders have analysed the matter in detail. There is no direct evidence to benchmark the R&M expenses given by the Board. While analyzing the R&M expenses in the previous years, the Commission has noted that one of the reasons for increase in cost is misclassification of expenses. Hence, the actual level of R&M expenses of the Board is not as projected by the Board.

The Commission in the case of employee costs has decided to follow the methodology employed for approving the R&M expenses in the previous year. Thus based on the CPI:WPI index, the allowable R&M expenses for the year 2012-13 is estimated as follows:

Approved R&M Expenses for 2012-13

R&M Expenses	(Actual)	Estimates			Approved expenses
	2008-09	2009-10	2010-11	2011-12	2012-13
	Rs. Crore	Rs.crore	Rs.crore	Rs.crore	Rs.crore
CPI weightage (70%)	97.15	109.17	120.57	130.00	140.16
WPI weightage (30%)	41.64	43.23	47.33	51.39	55.79
Total R&M Expenses	138.79	152.39	167.91	181.38	195.95
%age increase		9.80%	10.18%	8.03%	8.03%

* The figures arrived at for the intermediate years (2009-10, 2010-11 & 2011-12) are relevant only for estimation purpose, and cannot be construed as approved figures. Approved figures for these years will be as per the respective ARR&ERC Orders

On 70:30 basis on CPI and WPI, the composite increase would be about 8.03%. Considering the trends in inflation, the Commission uses the inflation rate as of 2011-12 for 2012-13 also for estimating the expenses. **However, in the truing up process, the expenses will be allowed based on the actual inflation recorded based on CPI and WPI in 2012-13.** Based on the formula, the R&M expenses admissible for 2012-13 is Rs.195.95 crore.

6.8 Other expenses

Other expenses include net prior period charges/income and other debits. The Board has not made claim on prior period charges. The other debits comprises of research and development expenses, provision for bad debts, miscellaneous write offs, material cost variance etc.,. The estimates under this head projected by the Board are as follows:

Other expenses proposed for 2011-12

Sl. No.	Particulars	2010-11 (Actual)	2011-12 (Revised)	2012-13 (Estimate)
		(Rs.Cr)	(Rs.Cr)	(Rs.Cr)
1	Research and Development Expenses	0.39	1.50	1.50
2	Provision for Bad and Doubtful debts	36.09	7.50	14.00
3	Miscellaneous Losses and write-offs	8.69	3.00	3.00
	Total	45.17	12.00	18.50

The Board proposed Rs.14 crore as the provision for bad debts for the year 2012-13. The actual write off will be allowed after the prudence check during the truing up process. The Commission allows the other expenses as projected by the Board for 2012-13.

6.9. Return of Equity

The Board has claimed return on equity at the rate of Rs.15.5% on equity capital of Rs.1553 crore as per the CERC norms. The Board has stated that the Commission had denied the RoE in 2010-11 and 2011-12 Orders based on the observation of C&AG and the Government order on conversion of equity into grant. However, the Government vide order dated 13-12-2010, with retrospective effect amended the order on conversion of equity into grant. The Government has clarified that *“the equity of Rs 1553 crores ordered in G.O (Ms) No. 27/98/PD dated 14-09-1998 will continue to be treated as Government’s capital in KSEB and para-5 of the G.O (Ms) No. 25/02/PD dated 09-10-2002 has been amended with retrospective effect to that extent.* The Board claimed that as per Section 66(A) of the Electricity (Supply) Act 1948, it is not mandatory to issue notification under Section 12(A) of the Electricity (Supply) Act 1948 for conversion of Government loan to equity. The Board further claimed that C&AG has completely dropped the observation on allowing RoE while issuing the audit certificate for the year 2009-10. As per the provisions of Tariff Policy also return on equity is permissible. Considering this, the Board has requested to allow the return on equity at 15.5%.

6.9.1. Objections of Stakeholders

The Association stated that since the matter is *sub judice* as the Commission is yet to take a view on the petition of the Board, only a token allowance of Rs.50 crore is to be provided as return on equity.

6.9.2. Analysis and decision of the Commission

The Commission is of the view that legitimate return should be allowed to the entities to function in a financially viable manner. As per the provisions of the repealed Acts return was provided based on the specified percentage of Net fixed assets less the contribution. However, as per the provisions of Electricity Act, 2003, the terms and conditions for determination of tariff for generation and transmission specified by CERC are applicable. Accordingly, instead of providing return on net fixed assets, return was allowed based on the equity shown in the accounts of the Board. However, the Government order subsequent to the conversion of Government loans, and the observation of the C&AG revealed that the equity booked by the Board is not proper. Hence, in the absence of having a base for allowing return, the Commission in the ARR&ERC order for 2010-11 & 2011-12 and in the truing up order for 2006-

07, 2007-08 & 2008-09 decided to provide a return on a provisional basis directed the Board to have a study based for arriving at a proper rate base. The Board has filed a petition before the Commission based on the Government Order dated 13-12-2010 for a review of the decision of the Government. The Commission in the order dated 13-4-2012 has decided to consider the letter of the Government for providing return on Equity on provisionally, till the matter is finalized based on the study reports of the Consultants engaged for developing regulations for determination of Tariff under section 62 of the Act.

Accordingly, the Commission would allow a return of 14% on the equity claimed by the Board i.e., 14% of Rs.1553 crore. Thus Rs.217.42 crore is allowed as return on equity for the year 2012-13.

6.10 Expenses and Interest Capitalized

The Board has provided Rs.47.09 Crore towards interest and financing charges capitalized and Rs.134.60 crore towards expenses capitalized. The Commission provisionally allows these items in the ARR for 2012-13 as proposed by the Board pending the issue of capitalization of expenses of establishment expenditure in construction cum O&M activities.

6.11. Aggregate Revenue Requirements

The summary of Aggregate Revenue Requirements projected by the Board and approved by the Commission for 2012-13 is as follows:

Aggregate Revenue Requirements for 2012-13

Items	2012-13	
	Proposed by the Board	Approved by the Commission
	(Rs. crore)	(Rs.crore)
Generation of Power	378.10	193.15
Purchase of power	5,281.09	5,008.49
Interest & Finance Charges	521.21	370.19
Depreciation	607.42	414.62
Employee Cost	2,231.46	1,663.66
R&M Expenses	326.07	195.95
A&G expenses	215.24	86.11
Other Expenses	18.50	18.50

Items	2012-13	
	Proposed by the Board	Approved by the Commission
	(Rs. crore)	(Rs.crore)
Gross Expenditure (A)	9,579.09	7,950.66
Less: Expenses Capitalized	47.09	47.09
Less: Interest Capitalized	134.6	134.60
Net Expenditure (B)	9,397.40	7,768.97
Return (C)	240.72	217.42
GROSS ARR (D) = (B) + (C)	9,638.12	7,986.39

CHAPTER – 7

TARIFF AND NON-TARIFF REVENUE

7.1 Introduction

The Board has estimated the revenue based on the revised tariffs and has estimated Rs.6031.72 Crore as the revenue from the sale of energy within the State including Rs.775.94 crore to be realized from sale of energy at marginal costs. Summary of sales estimations provided by the Board is given below.

Estimate of revenue from sale of power for the years 2011-12 & 2012-13

Category	2011-12 (Revised Estimate)		2012-13 (with ceiling on power supply)	
	Sale of energy	Revenue from current tariff	Sale of energy (at normal Tariff)	Revenue from current tariff
	(MU)	(Rs.Cr)	(MU)	(Rs.Cr)
I. Revenue from sale of power				
Domestic	7619.9	1490.45	7970.70	1563.97
LT II	16.1	9.10	16.15	9.12
Commercial	2160	1551.27	2009.84	1468.93
Public Lighting	280	59.31	299	63.33
Irrigation & Dewatering	243	22.47	247	22.84
Industrial LT	1123	449.32	1014.90	417.21
NPG	3	0	3	0.00
HT&EHT	3867.1	1563.15	3513.60	1489.22
Railway Traction	156.39	60.98	136	55.38
Bulk Supply	479	182.05	424.15	165.78
Total from revenue through Tariff	15947.49	5388.10	15634.34	5255.78
II. Fuel surcharge				
Fuel surcharge		181.14		
III. Energy charge for excess consumption			751.95	775.94
Grand Total	15947.49	5569.24	16386.30	6031.72

The Board mentioned that, the projected revenue for 2011-12 is the fuel surcharge due of Rs.181.14 crore. While presenting the estimates of revenue from sale of power, the Board has mentioned that in view of the criticism expressed by the stakeholders on estimate of slabwise consumption, the Board has collected details from 23 circle offices through 'ORUMA billing Software'. The Board further stated that the estimate of revenue using the data for 2010-11 shows that the variation is

below 0.5% The percentage wise energy consumption and consumer strength estimated for 2011-12 is as follows.

Estimate of Slabwise consumer strength and consumption for 2011-12

Consumer slab	Consumer	Slab wise
	(%)	(%)
0-40	33.37	9.65
41-80	29.71	22.36
81-120	17.88	22.26
121-150	7.90	13.32
151-200	6.14	13.27
201-300	3.60	10.81
301-500	1.12	5.13
Above 500	0.28	3.20

Based on the above details, the slabwise energy projections for 2011-12 and 2012-13 is given below:

Slab wise details of energy consumption

Month wise consumption range	Energy Consumption (MU)	
	2011-12	2012-13
0-40	735.35	793.36
41-80	1703.67	1838.07
81-120	1695.91	1829.69
121-150	1014.65	1094.69
151-200	1010.92	1090.66
201-300	823.27	888.21
301-500	391.14	422.00
Above 500	243.72	262.95
Total	7618.63	8219.63

The estimated slabwise details for the year 2011-12 and 2012-13 based on the above model is given below.

Slab wise details of energy billed

Tariff range	Energy rate(Rs/kWh)	Energy Billed (MU)	
		2011-12	2012-13
0-40	1.15	3363.57	3523.98
41-80	1.90	1988.30	2133.78
81-120	2.40	1036.81	1144.91
121-150	3.00	409.00	465.44
151-200	3.65	349.42	403.40
201-300	4.30	250.58	293.21
301-500	5.30	117.27	137.46
Above 500	5.45	103.68	117.45
Total		7618.63	8219.63

Though the Board has estimated the energy sales at 7.48%, considering the high cost of power, it was proposed to introduce 15% restrictions on the use of power thereby power will be supplied at normal tariff for 85% of the average consumption and consumption if any above this limit will be charged at marginal rate of Rs.10.31 per unit, which is the average cost of power from liquid fuel stations. By considering the revenue at normal tariff and through excess consumption, the revenue estimated by the Board for the year 2012-13 is as shown below:

Estimate of revenue from sale of power for the years 2011-12 & 2012-13

Category	2011-12 (Revised Estimate)		2012-13 (with ceiling on power supply)	
	Sale of energy	Revenue from current tariff	Sale of energy (at normal Tariff)	Revenue from current tariff
	(MU)	(Rs.Cr)	(MU)	(Rs.Cr)
I. Revenue from sale of power				
Domestic	7619.9	1490.45	7970.70	1563.97
LT II	16.1	9.10	16.15	9.12
Commercial	2160	1551.27	2009.84	1468.93
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Irrigation & Dewatering	243	22.47	247	22.84
Industrial LT	1123	449.32	1014.90	417.21
NPG	3	0	3	0.00
HT&EHT	3867.1	1563.15	3513.60	1489.22
Railway Traction	156.39	60.98	136	55.38
Bulk Supply	479	182.05	424.15	165.78
Total from revenue through Tariff	15947.49	5388.10	15634.34	5255.78
II. Fuel surcharge				
Fuel surcharge		181.14		
III. Energy charge for excess consumption			751.95	775.94
Grand Total	15947.49	5569.24	16386.30	6031.72

The total revenue at normal tariff would be Rs.5255.78 crore and the revenue from excess consumption is estimated as Rs.775.94 crore. The total revenue from sale of power is estimated as Rs.6031.72 crore.

The non-tariff income projected by the Board for 2011-12 is Rs.366.14 crore. It includes meter rent, miscellaneous charges, rebate, interest from banks etc. The meter rent is estimated as Rs,165 crore. The consumer strength as on 1-4-2011 is

104.28 lakh. The increase in number of consumers expected in 2011-12 and 2012-13 are 3.32 lakhs and 3.5 lakhs respectively. Accordingly, the revenue from meter rent was projected as Rs.165 crore.

Miscellaneous Charges include charges such as unconnected minimum, testing fee, minimum guarantee charge, theft recovery, meter box charges, power allocation charges etc. The projection for 2011-12 is Rs 45.00 crore and for 2012-13 is Rs.30 crore. Rebate is the incentive receivable by the Board for arranging timely payment of power purchase and transmission cost etc to CPSUs. This also includes rebate for prompt repayment of principal amount due to PFC/REC etc. The Board is proposed to dispense with the payment through LC and accordingly the maximum rebate for timely payment will be only 1%. Accordingly Rs.40 crore is expected on this account for 2012-13.

Miscellaneous receipts include items like rental for staff quarters, rental from contractors and others, excess found on physical verification of cash, stock and fixed assets, security deposit forfeited, receipts from sale of trees , usufructs etc Rs.40 crore is expected under this head. Hence the total non-tariff income expected for the year 2012-13 is Rs.366.14 crore as shown below:

Proposed Non-Tariff Income for 2012-13 (Rs.crore)

Sl No	Particulars	2010-11	2011-12			2012-13
		Provisional	ARR	KSERC	Revised	Total
		(Rs Cr)	(Rs Cr)	(Rs Cr)	(Rs Cr)	(Rs Cr)
1	Meter Rent/Service Line Rental	154.38	160.00	160.00	160.00	165.00
2	Miscellaneous Charges. Reasonable cost for providing supply, Testing fee, Reconnection fee, Penal charges etc	50.86	50.00	50.00	45.00	30.00
3	Interest on Staff Loans and Advances	0.40	0.30	0.30	0.30	0.25
4	Income from Investments	0.01	0.00	0.00	0.00	0.00
5	Interest on Advances to suppliers/ Contractors	3.71	3.00	3.00	3.00	2.75
6	Interest from Banks	84.43	64.06	64.06	64.06	56.14
7	Rebate Received	72.65	60.00	60.00	75.00	40.00
8	Income from sale of scrap etc.	26.47	15.00	15.00	30.00	32.00
9	Income from staff welfare Activities	0.00	0.00	0.00	0.00	0.00
10	Miscellaneous Receipts	49.83	38.00	38.00	38.00	40.00
	Grand Total	442.74	390.36	390.36	415.36	366.14

7.2 Total Expected Revenue from charges

The total revenue from tariff and revenue from non-tariff income for the year 2012-13 is Rs. 6397.87 crore as shown below:

Total Expected Revenue from Charges proposed for 2012-13 (Rs.Crore)

	2010-11	2011-12	2012-13
Particulars	(Provisional)	(Revised)	(Estimate)
Tariff Income	5198.52	5569.24	6031.72
Non- Tariff Income	442.74	415.36	366.14
Total Income	5641.26	5984.60	6397.87

7.3 Objections of Stakeholders

The stakeholders have in general have not made any serious objections on the revenue projections of the Board

7.4 Analysis and decision of the Commission

The Commission has considered the revenue projections of the Board. The Board has estimated the revenue based on the proposal of power restrictions and hence the revenue expected at normal tariff was not provided by the Board. **As mentioned in chapter 2, the Commission has rejected the proposal of power restrictions** as part of the ARR& ERC petition. Accordingly, the revenue projections at normal tariff will be also be different compared to the projections of the Board. The Commission has estimated the revenue at normal tariff as shown below:

Approved Revenue estimates for 2012-13

	Energy Sales (MU)	Average Tariff (Rs.kWh)	Estimated Revenue (Rs. Crore)
Domestic	8116	2.00	1,620.65
Industrial	1104	4.04	446.32
Agricultural	247	0.92	22.84
Non-Domestic	577	6.93	399.32
Commercial	1610	7.32	1,178.53
Public lighting	299	2.12	63.33
HTI Industrial	1554	4.12	639.68
HT II Non-domestic	120	4.18	50.29
HTIII Agricultural	8	3.12	2.45
HTIV Commercial	907	4.94	447.92
EHT-I	375	3.77	141.22

	Energy Sales (MU)	Average Tariff (Rs.kWh)	Estimated Revenue (Rs. Crore)
EHT-II	860	3.49	300.55
Railway	148	3.98	58.86
Grid-11KV	108	3.91	42.37
Grid-66KV	39	3.90	15.18
Grid-110KV	315	3.82	120.49
Total	16386	3.39	5,550.00

The Commission has allowed to collect the fuel surcharge for the period from April to September 2012 @20 paise per unit for realizing Rs.161.10 crore on account of variations in fuel prices. The revenue from fuel surcharge will also be available in 2012-13.

The Commission has examined the projections of non-tariff income of KSEB. The projections are considerably lower for 2012-13 compared to 2011-12. The reason are reduction in interest income and miscellaneous charges such as testing fee, penal charges etc., In the case of miscellaneous charges, there is no ground that it will reduce and has to be atleast the level in 2010-11. Hence the Commission re-estimates the non-tariff income as Rs.386.14 crore as against Rs.366.14 crore projected by the Board. Accordingly the total revenue available as shown below:

Approved Revenue from Tariff & Non Tariff for 2012-13

Particulars	2012-13 (Rs. Crore)	
	ARR	Approved
Revenue from sale of power	5,255.78	5,550.00
Energy charge for excess consumption	775.94	
Revenue from fuel surcharge		161.10
Non- Tariff Income	366.14	386.14
Total Income	6,397.87	6,097.24

CHAPTER – 8

SUMMARY OF ARR & ERC FOR 2012-13

The Board in the ARR&ERC for 2012-13 estimated the revenue gap as Rs.3240.25 Crore considering the ARR of Rs.9638.12 Crore and ERC of Rs.6397.87 Crore. As per the estimates of the Board, only about 90% of the projected demand can be met by cheaper sources of energy. Considering the high cost of power from liquid fuel stations, the Board has proposed to introduce power restrictions to the tune of 15% on most of the consumer categories.

The revenue from sale of power estimated by HT-EHT Association is Rs.5810 crore, and the revenue gap estimated is Rs.391 crore. The total revenue requirements thus will be only Rs.6363 crore, which shows that the average cost of supply is only Rs.3.80/kWh. Shri. A.R. Satheesh, representing M/s.Carborandum Universal, stated that the revenue gap is about Rs.1.98 per unit i.e., the average realisation should be Rs.5.66 per unit to tide over the revenue gap. According to him the major concern of industries on this ARR is cost escalation, which is projected as 46% over the approved figures of previous year. The revenue gap is about 51% of the revenue from sale of power. Representative of M/s Binani Zinc has argued that by supplying electricity for subsidising consumers is through cross subsidy and about Rs.1470.23 crore is the cross subsidy burden. The same has to be treated as subsidy receivable from the Government. The Consumer Vigilance Centre has mentioned that year after year, the Board has presented increasing levels of revenue gap, but no attempt has been made to reduce the expenses.

Most of the stakeholders have objected to the proposal of KSEB for introducing the power restrictions. Many of them stated that if there is any shortage in revenue, the same has to be met by general revision in tariff. The Commission after examining the proposal and objections of the stakeholders, came to the conclusion that the present petition of the Board is not a straight ARR&ERC proposal but a petition with an embedded tariff revision in effect increasing the tariffs even upto 50% for certain categories. The Commission is of the view that any kind of tariff increase should be through a proper tariff petition after considering the ARR&ERC under normal situation.

Hence the ARR&ERC petition in the present form is a skewed one and does not present a fair view of the revenue and expenditure under normal circumstances. Growth in power sector is vital to the economy and as a dominant player in the power sector of the State, KSEB should have a definite plan to strengthen the sector rather than taking a restrictive approach. In fact in the ARR&ERC exercise, the Utility should have presented a plan for meeting the full requirement of its consumers with suggestions of matching resources to meet the requirements. The Commission looks with concern this retrograde approach. Hence the Commission rejected the proposal of the Board on power restrictions.

An estimate of the revenue gap under normal demand growth without power restrictions given by the Board is shown below:

Estimated Revenue gap in 2012-13 in normal scenario

Items	2012-13
	Under Normal conditions without regulations (Rs.crore)
Generation of Power	378.10
Purchase of power	6,183.90
Interest & Finance Charges	521.21
Depreciation	607.42
Employee Cost	2,231.46
R&M Expenses	326.07
A&G expenses	215.24
Other Expenses	18.50
Gross Expenditure (A)	10,481.90
Less: Expenses Capitalized	47.09
Less: Interest Capitalized	134.60
Net Expenditure (B)	10,300.21
Return (C)	240.72
GROSS ARR (D) = (B) + (C)	10,540.93
Less Non-Tariff income (E)	366.14
Net ARR (F)= (D)-(E)	10,174.79
Revenue from sale of Power	5,837.71
Revenue Gap	(4,337.08)

Thus under normal conditions, the revenue gap for the year 2012-13 would have been Rs.4337.08 crore, where as the present proposal of the Board shows Rs.3240.25 crores only.

As against the proposal of the Board, the Commission considered the proposal in the above lines and arrived at the Aggregate Revenue Requirement of Rs.7986.39 crore and expected revenue from charges of Rs.6097.24 crore as shown below:

APPROVED ARR&ERC FOR 2012-13

Items	2012-13	
	Proposed by the Board	Approved by the Commission
Energy Sales (MU)	16386	16386
T&D Loss (%)	15.32%	14.81%
Energy Requirement (MU)	19351	19235
	(Rs. crore)	(Rs.crore)
Generation of Power	378.10	193.15
Purchase of power	5,281.09	5,008.49
Interest & Finance Charges	521.21	370.19
Depreciation	607.42	414.62
Employee Cost	2,231.46	1,663.66
R&M Expenses	326.07	195.95
A&G expenses	215.24	86.11
Other Expenses	18.50	18.50
Gross Expenditure (A)	9,579.09	7,950.66
Less: Expenses Capitalized	47.09	47.09
Less: Interest Capitalized	134.6	134.60
Net Expenditure (B)	9,397.40	7,768.97
Return (C)	240.72	217.42
GROSS ARR (D) = (B) + (C)	9,638.12	7,986.39
Less Non-Tariff income (E)	366.14	386.14
Net ARR (F)= (D)-(E)	9,271.98	7,600.25
Revenue from sale of Power	5255.79	5,550.00
Additional Revenue	775.94	
Revenue from Fuel surcharge		161.10
Total Revenue	6,031.73	5,711.10
Revenue Gap	(3,240.25)	(1,889.15)
Average Cost of Supply (To be realised)(Rs.kWh)	5.66	4.64
Average Revenue (Rs./kWh)	3.68	3.49
Revenue gap (Rs./kWh)	1.98	1.15

Based on the approved ARR & ERC the Commission provisionally arrives at a revenue gap of Rs.1889.15 Crore for 2012-13.

8.1. Order of the Commission

The Commission after considering the documents placed before it and having heard the views of the stakeholders and the Board, hereby approves an Aggregate Revenue Requirement of Rs.7986.39 Crore and a total Expected Revenue from Charges of Rs.6097.24 Crore as against Rs.9638.12 Crore and Rs.6397.87 Crore respectively projected by the Kerala State Electricity Board in the Petition OP 3 of 2012 for the year 2012-13, subject to the observations and conditions mentioned in this Order. **The Commission rejects the proposal of the Board to introduce power restrictions to the tune of 15% on most of the consumer categories as part of the ARR&ERC petition on a year round basis.** In view of the above position, the Commission has attempted to estimate the revenue gap without involving power restrictions. **The revenue gap approved for the year 2012-13 is Rs.1889.15 crore against Rs.3240.25 crore projected by the Board. The revenue gap would have been Rs.4337.08 crore as against Rs.3240.25 Crore projected by the Board, if power restrictions were not incorporated in the proposal submitted by the Board.**

The Board has filed petition for revision of tariff to earn an additional revenue of about Rs.1586 crore, which is being processed. Till a final decision is taken on the tariff petition, the existing tariff will continue.

The Board had submitted a statement showing the function wise split up of costs on a tentative basis along with the ARR&ERC petition. There are many grey areas in the computation, such as apportioning of equity base, loss, fixed assets, capital liabilities etc. In the absence of a clear demarcation of functional costs, the details could not be verified at this stage. Further, the validity of assumptions made by the Board for function level disaggregation require in-depth examination. Hence, the Commission is not in a position to authenticate the functional costs. The Commission defers the analysis of the functional costs for the time being.

As soon as the re-vesting process is over, the Board may approach the Commission with a proposal for splitting up the this approved ARR&ERC for the re-vested entities.

CHAPTER – 9

DIRECTIVES

The Commission issues the following directives for the compliance of the Board.

1. The Board shall take up Demand side Management activities for reducing demand and consumption in the State during 2012-13. Proposal for extension of ToD metering to all LT consumers with connected load 10kW and above should be submitted to the Commission before 31-7-2012. The Board shall also submit a comprehensive proposal on energy conservation before 31-8-2012. The agencies such as EMC may be associated for preparation and execution of DSM activities.
2. The website of the Kerala State Load Despatch Centre should be revamped/remodelled effectively so that the system details are uploaded and made available on a daily basis, as done by the Load Despatch centres in other states, to ensure transparency in the system statistics.
3. The Board should prepare and submit a revised capital investment plan for Generation/Transmission/Distribution wings with appropriate funding plan for the year 2012-13 before 30-6-2012 for Commission's scrutiny and approval.
4. The Board should finalise long term contracts for power purchase, including the Case-I bidding immediately. The Board should take advance action for booking corridors so that power restrictions are reduced to the minimum levels in the ensuing months.
5. The Board shall study and report the voltage level loss as well as technical-commercial separation of T&D loss within four months from the date of the Order. The frequency of studies shall be increased especially in transmission by periodically taking into consideration seasonal load flow variations and the results may be reported to the Commission in a consolidated form. In the case of loss studies in distribution, the Commission had already issued guidelines for taking up more representative sample studies and making a consolidated report. The consolidated report of loss studies in transmission and distribution shall be submitted to the Commission by 1-10-2012.

6. The implementation of R-APDRP (Part-A&B) projects shall be accorded top priority and time bound action should be taken. Quarterly progress reports should be submitted by the 20th of the succeeding month to the Commission.
7. The Commission directs that the Board should have a specific target for replacing faulty meters . A program should be evolved to replace all the faulty meters in the system within a specified time limit with good quality meters to ensure correctly metered supply. The Board should submit a workable action plan within 6 months to attain this target.
8. As soon as the revesting process is over, the Board may approach the Commission with a proposal for splitting up the approved ARR&ERC for the revested entities.

The Commission is distressed to note that many of the directives issued in the past remain uncomplished with. A specific reference should be made to the man power study ordered in the ARR&ERC order for 2010-11 for which some action was taken and still not completed. This should be completed without delay and in any case before filing the next ARR&ERC petition. The Commission is concerned with the unrestrained increase in employee costs without a scientific man power study covering different aspects mentioned elsewhere in the Order. The Board is directed to take action on this direction in a time bound manner.

Sd/-

**P.Parameswaran
Member**

Sd/-

**Mathew George
Member**

Sd/-

**K.J.Mathew
Chairman**

Approved for Issue

Secretary

ANNEXURE I

List of persons who have filed written objections

1. The Kerala High Tension & Extra High Tension Industrial Electricity Consumer's Association, Productivity House, Jawaharlal Nehru Road, Kalamassery, Ernakulam
2. Shri.Biju T Nair, Head-Deployment, Indus Towers Ltd, Vankaarath Towers, N H Bypass, Palarivattom, Cochin 682 024
- 2(a) M/s. Indus Towers Ltd,
3. Shri. P.C.Seksaria, Director-Finance, Pastspin India Limited, 3rd/5th Floor, Palal Towers, M.G.Road, Ravipuram, Kochi 682 016
4. Shri. V.N.Balakrishnan, Sr. Vice President (T&O), GTN Textiles Limited 3rd Floor, Palal Towers, M.G.Road, Ravipuram, Kochi 682 016
5. Shri.P.V.Girish, Dy. General Manager (E), The Travancore- Cochin Chemicals Ltd, P.B.No. 4, Udyogamandal P.O. Kochi 683 501
6. Shri.C.K.Mathew, Secretary, Hindustan Paper Corporation Employees Association, Newsprint Nagar P.O, Kottayam Dist, Kerala 686 616
7. Shri. S.Jayathilakan, Past Chairman, Kerala State Productivity Council, Productivity House, P.B.No. 8, HMT Road, Kalamassery 683 104
8. Shri.P.Suresh, Vice President, Kerala Newsprint Employees' Union, Newsprint Nagar, Kottayam 686 616
9. Shri.P.V.Poulose, Secretary, H.N.L Employees Association, Newsprint Nagar P.O, Kottayam 686 616
10. Shri.N.R.Rageshkumar, General Secretary, Binani Zin Employees Union, Binanipuram
11. Shri.V.V.Kurup, Dy.General Manager (Engineering & Construction), Bharat Petroleum Corporation, Kochi Refinery, Ambalamugal 682 302
12. Shri. K.Kumaravel, Unit Head, Hicalco Industries Ltd, Alupuram Works, PB No. 21, Kalamassery 683 104
13. Shri.Shaji Sebastian, District President, Kerala State Small Industries Association, Ernakulam
14. The Secretary, HIL Employees Joint Trade Union Council, HIL, Udyogamandal, 683 501
15. The Joint Secretary, Telk Workers Congress (INTUC) Angamally

16. The Joint Secretary, Telk Employees' Union (CITU), Angamally South 683 573
17. Shri.N.Anilkumar, Vice President, Hindustan Newsprint Officers' Association, Newsprint Nagar, Kottayam 686 616
18. Shri. K.B.Muraleedharan, Kalamassery
19. The General Secretary, Zud- Chemi Employees Federation, Binanipuram
20. The Joint Council of Trade Unions, GTN Textiles Ltd, Aluva
21. Shri.P.P.Joy, Secretary, Binani Zinc Employees Organisation, Binani Zinc Ltd, Binanipuram 683 502
22. Shri.K.Rajan, Chief General Manager, Hindustan Organic Chemicals Ltd, Ambalamugal, Ernakulam 682 302
23. M/s. KINESCO Power and Utilities Pvt Ltd, Kakkanad, Kochi
24. Shri.Ramadas, Secretary Carborundum Universal Company Thoshilali Union, Kalamassery, Cochin 683 109
25. The Managing Director, The Western India Plywoods Ltd, Baliapatam, Cannanore 670 010
26. The Secretary, Carborundum Universal Employees Union (INTUC), Kalamassery Development Plot P.O, Kochi 683 109
27. The Secretary, Carborundum Universal Employees Association, Edappally P.O
28. Shri.R.Baiju, Carborundum Universal Workers Union, Kalamassery Development Plot P.O, 683 109
29. The Travancore Cochin Chemicals Technical Officers Forum, Udyogamandal
30. Shri. Eldho John, Dy.General Manager, Cochin Shipyard Ltd, Kochi 682 015
31. The General Secretary, Zud-Chemi Employees Union, Binanipuram
32. The General Secretary, Carborundum Universal Plant II Employee's Union (INTUC) Development Plot P.O, Kalamassery 683 109
33. Shri. Jose Dominic, Chairman, Confederation of Indian Industry, Opp. Cochin Passport Office, Panampilly Nagar, Kochi 682 036
34. The General Secretary, HOCL Joint Trade Union Forum, Ambalamugal, Kochi 682 302
35. The Chairman, Standing Council Of Trade Unions, Ernakulam
36. Shri. Joseph Kurian, Chief Executive Officer, KINESCO Power and Utilities Pvt Ltd, Kinfra Park Office, Kusumagiri P.O, Kakkanad, Kochi 682 030

37. Shri.A.R. Satheesh, Carborundum Universal Ltd
38. The Chief Electrical Distribution Engineer, O/of the Chief Electrical Engineer, Southern Railway, Park Town, Chennai 600 003
- 38(A) Shri. B.V.Chandrashekar, Chief Electrical Distribution Engineer, Southern Railway
39. The General Manager, Hindustan Newsprint Ltd, Kottayam 686 616
40. M/s. Binani Zinc Ltd, Binanipuram, Ernakulam 683 502
41. KSEB Officers' Association
42. Shri. Shaji Varghese, Plant Head, MRF Ltd, P.B.No.2, Vadavathoor P.O, Kottayam 686 010
43. The Chief Engineer, Travancore Titanium Products Ltd,m Thiruvananthapuram 695 021
44. The General Secretary, Titanium General Labour Union (CITU)
45. Shri. Jose Mathew, Cappil Building, Pala 75
46. Shri. A. Aiyappan Nair, General Secretary, Confederation of Consumer Vigilance Centre, Kodunganoor P.O, TVM 13
47. Shri. S.P.Ravi, Secretary, Chalkudy Puzha Samrakshana Samithi, Pariyaram P.O, Thrissur Dist.
48. The Dy. General Manager, Cochin Minerals and Rutile Ltd, Market Road, Alwaye
49. The Executive Director, Kanan Devan Hills Plantations Co. Pvt Ltd, Munnar 685612

ANNEXURE - II

KSEB's Comments and Objections on the 'Responses of Stake Holders on ARR&ERC of KSEB for the year 2012-13

Objections	Comments																		
<p>Objection No. 1 filed by Kerala HT & EHT Industrial Electricity Consumers' Association, Objection No. 5- The Travancore -Cochin Chemicals Ltd, Objection-12 filed by Hindalco Industries Ltd Objection Nos:21- Binani Zinc,22 - Hindusthan Organic Chemicals,25 -M.D,Western India Plywood,30- Dy.G.M,Cochin Shipyard. Objections Nos. 39: The General Manager,Hindusthan news print Limited. Kottayam Objection No.- 48: Dy General Manager,Cochin Minerals and Rutile LTD Objection Nos. 6,8,9, 14,15,16,17, 18, 19, 20,24, 26,27,28,29, 31,32,33,34 & 35 (Objections raised by various trade unions)</p>																			
Tariff petition (para 2.1 to 2.10)	KSEB is in the process of studying various options for bridging the revenue gap. KSEB had filed the tariff petition on 30-3-2012.																		
Capital Investment (Para-3.2 to 3-12)	<p>KSEB vide the letter dated 6-2-2012 had submitted the details of the Capital Investments in Generation, Transmission and Distribution. Hon'ble Commission has raised certain queries on the details furnished by the Board and additional details as required by the Commission shall be furnished separately.</p> <p>The objectioner is aware of the fact that, provisions of the KSERC (Terms and Conditions of Tariff for Retail Sale of electricity) Regulations, 2006 applicable for a 'Distribution Licensee' cannot be made applicable for a single utility like KSEB doing the Generation, transmission and distribution business. Hence Hon'ble Commission may refrain the objectioner from raising unwarranted comments on the Capital Investments.</p>																		
Sale forecast	<p>The methodology adopted for estimating the sale forecast is detailed under Chapter-4 of the ARR.</p> <p>The objectioner may be aware that, the energy consumption of all categories including those of association members of the objectioner is showing an excessive increase during the year 2011-12. This has resulted into a situation that, the energy requirement of the State has increased by about 540MU over the approved levels. The details are given in the Table below.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 15%;">Month</th> <th style="width: 15%;">Approved by Hon'ble Commission for the year 2011-12 (MU/day)</th> <th style="width: 15%;">Actual (MU/day)</th> <th style="width: 15%;">Actual increase over approval (MU/day)</th> <th style="width: 15%;">Increase for the month (MU)</th> <th style="width: 15%;">Percentage of increase (%)</th> </tr> </thead> <tbody> <tr> <td>Apr-11</td> <td>51.12</td> <td>51.30</td> <td>0.18</td> <td>5.37</td> <td>0.35</td> </tr> <tr> <td>May-11</td> <td>52.14</td> <td>54.33</td> <td>2.19</td> <td>68.03</td> <td>4.21</td> </tr> </tbody> </table>	Month	Approved by Hon'ble Commission for the year 2011-12 (MU/day)	Actual (MU/day)	Actual increase over approval (MU/day)	Increase for the month (MU)	Percentage of increase (%)	Apr-11	51.12	51.30	0.18	5.37	0.35	May-11	52.14	54.33	2.19	68.03	4.21
Month	Approved by Hon'ble Commission for the year 2011-12 (MU/day)	Actual (MU/day)	Actual increase over approval (MU/day)	Increase for the month (MU)	Percentage of increase (%)														
Apr-11	51.12	51.30	0.18	5.37	0.35														
May-11	52.14	54.33	2.19	68.03	4.21														

Jun-11	46.86	47.76	0.90	27.15	1.93
Jul-11	45.64	47.71	2.07	64.11	4.53
Aug-11	46.81	48.47	1.66	51.43	3.54
Sep-11	48.91	49.43	0.52	15.51	1.06
Oct-11	48.61	52.19	3.58	111.02	7.37
Nov-11	50.59	51.43	0.84	25.32	1.67
Dec-11	51.63	53.28	1.65	51.27	3.20
Jan-12	51.38	52.56	1.18	36.63	2.30
Feb-12	54.62	55.25	0.63	17.55	1.15
Mar-12	57.55	59.72	2.17	67.37	3.78
Average /Total	50.47	51.95	1.48	540.76	2.94

KSEB has to procure additional energy to the extent of 540 MU from traders and short-term market to meet the increase in the demand over the approved level and incurred an additional cost of Rs 763.87 crore during the year 2011-12. However, the objectioner has not considered the excessive growth of the energy consumption during the year 2011-12.

It is further submitted before the Hon'ble Commission that, the HT&EHT consumer association is deliberately attempting to state that, the energy consumption of the State is much less than the quantity projected in the ARR.

According to the objectioner, the energy consumption by the consumers for the year is only 15603 MU. However, while approving the ARR for the year 2011-12 its self. Hon'ble Commission has approved the energy sales for the year 2011-12 as 15600MU. In addition to the above, as stated in the Table, due to the excessive electricity usage by all consumers including the Stakeholder, there is an additional energy consumption of 540MU at the generation end and the additional energy sale to the consumers due to the excessive energy consumption was to the extent of 454MU.

It is further submitted that, KSEB has prepared the ARR&ERC for the year 2012-13 during the months of November -2011. Based on the energy consumption trend up to that period, KSEB had revised the energy sales for the year 2011-12 as 15947.49 MU as against the 15600.15 MU approved in the ARR order dated 1st June-2011. However, as submitted above, with the present actual usage of electricity, the energy sale for the year 2011-12 is likely to be about 16050MU as against the revised estimate of 15947 MU in the ARR for the year 2012-13. Accordingly, with the present trend of increase in electricity usage,

		<p>the energy sale for the year 2012-13 also likely to increase further from the estimate of 17139.62 MU.</p> <p>It is further submitted that, the objectioneer is deliberately attempting to understate the energy sale forecast for underestimating the cost of generation and power purchase to arrive at a reduced revenue gap.</p> <p>Considering the above, Hon'ble Commission may kindly reject the objection raised by the stake holder.</p>
	Losses	<p>The stakeholder may well appreciate the loss reduction achieved by KSEB during the regulatory regime since 2001-02. KSEB has so far reduced the T&D loss by 14.67% with in a short span of nine years. The stakeholder may kindly verify the loss reduction achieved by other DISCOMS in the Country.</p> <p>The level of T & D loss in KSEB is 16.09% during the year 2010-11. Further KSEB targets to reduce the loss to 15.56% during the year 2011-12 and 15.32% during the year 2012-13. Since KSEB has achieved a reasonable loss reduction targets already, KSEB has been taking earnest efforts to maintain the loss reduction already achieved by KSEB.</p> <p>The 1% loss reduction targets proposed by the objectioneer is not realistic and even with huge additional investments, KSEB or any similar distribution utilities could not achieve such an ambitious target from the present level of 16% T&D loss.</p> <p>The objectioneer as a well studied group of the power sector is aware of the fact that, the incremental cost required for incremental reduction on T&D loss after a particular level is inversely proportional. KSEB as the Distribution utility has limited resources and there is a limit for the capital investment that can be executed in a year.</p> <p>It is also submitted that, the stakeholder is objecting the capital investments proposed by KSEB citing the reason that, it is highly unachievable. At the same time the stakeholder is proposing a un realistic loss reduction targets without any additional investments.</p>
	Hydro availability	<p>The detailed methodology adopted for estimating the hydel availability was discussed under para-7.2.2 of the ARR petition. Further, the energy availability from the Small Hydel Plants are estimated separately. The month wise energy availability from each hydel station is detailed under Annexure 7(2) of the ARR petition.</p> <p>KSEB is of the opinion that that, the stakeholder is totally confused on the estimation of hydel availability. The objectioneer has been raising the same issue during the</p>

deliberations of ARR&ERC petition every year. Hence, KSEB can give a detailed appraisal on the subject matter to the Stakeholder at their convenience. In order to clarify the matter, the station wise designed energy of all the hydel plants including the SHPs is attached for ready reference.

NAME OF PROJECT	Inst: Cap (MW)	Generation Potential (MU)	Date of Commissioning
PALLIVASAL HE PROJECT	37.5	284.00	19.3.1940
SENGULAM HE PROJECT	48	182.00	1.5.1954
PORINGALKUTHU	32	170.00	6.3.1957
NERIAMANGALAM	52.65	237.00	27.1.1961
PANNIAR HE PROJECT	30	158.00	29.12.1963
SABARIGIRI HE PROJECT	335	1338.00	18.4.1966
SHOLAYAR HE PROJECT	54	233.00	9.5.1966
KUTTIYADI HE PROJECT	75	248.00	11.9.1972
IDUKKI HE PROJECT	780	2398.00	12.2.1976
IDAMALAYAR HE PROJECT	75	380.00	3.2.1987
KALLADA HE PROJECT	15	65.00	5.1.1994
PEPPARA HE PROJECT	3	11.50	15.6.1996
LOWER PERIYAR	180	493.00	27.9.1997
MADUPPETTY HE PROJECT	2	6.40	14.1.1998
Poringal LB ext	16	74.00	20.3.1999
KAKKAD HE PROJECT	50	262.00	14.10.1999
KUTTIADI EXT SCHEME	50	75.00	27.1.2001
MALAMPUZHA SHEP	2.5	5.60	26.11.2001
CHEMBUKADAVU - STAGE I	2.7	6.24	25.1.2004
CHEMBUKADAVU - STAGE II	3.75	9.66	25.1.2004
URUMI SHP - STAGE I	3.75	9.53	25.1.2004
URUMI SHP - STAGE II	2.4	6.01	25.1.2004
MALANKARA HE PROJECT	10.5	65.00	23.10.2005
LOWER MEENMUTTY SHEP	3.5	7.63	25.3.2006
Neriamangalam Ext	25	58.27	27.05.2008
Kuttiyadi Tail Race	3.75	15.00	09.11.2008
KAES	100	240.00	19.06.2010

		Poozhithode	4.8	14.00	20.02.2011
			1997.80	7051.84	
		<p>It is further submitted that, out of the above, the recently commissioned projects are SHP's with limited storage facilities except Kuttiadi Additional Extension. The energy availability from SHPs are estimated separately and given under Table 7-5 of the ARR &ERC petition.</p> <p>Further, in the case of kuttiadi, the total generation potential including Kuttiadi (3 x25= 75 MW), Kuttiadi extension (1 x 50 MW) and Kuttiadi Addl Extension (2 x50MW) is 563 MU only.</p> <p>There may be some variation on the energy availability from hydel over the designed energy due to the variation of monsoon. However, during a normal monsoon year, the energy availability was usually within the designed energy as per the DPR of KSEB.</p> <p>The correlation of the inflow with installed capacity of the SHPs added during the recent years is totally wrong.</p> <p>It is also submitted that, Hon'ble Commission vide the review order on ARR&ERC for the year 2011-12 has admitted the fact that, there was some conceptual error on approving a higher hydel availability than the projection given in the ARR. Further, the increase in hydel availability over the projection in the ARR&ERC for the year 2011-12 was mainly due to higher inflow received during the period from June-2011 to November-2011, especially during the months of August and Spetember-2011. The details are given under Table- 6-7 of the ARR.</p> <p>Anticipating a normal monsoon for the ensuing year 2012-13, the maximum energy availability from hydel would be about 6992 MU only. Further, KSEB has been taking all efforts to make the maximum capacity availability for meeting the peak requirement.</p> <p>Considering the details as submitted above, Hon'ble Commission may kindly approve the hydel availability as estimated by KSEB.</p>			
	<p>Energy availability from CGS (Para 3-73 to 3-77)</p>	<p>The stakeholder has made deliberate attempt to over-estimate the energy availability from CGS to confuse the stakeholders and Hon'ble Commission that the State has no power crisis.</p> <p>The stakeholder may be requested to go through the details given under paragraph 7.4 of</p>			

the ARR, wherein KSEB had detailed station wise projection of energy availability from CGS for the year 2012-13. Further the month wise energy availability from CGS was given under Annexure 7(4) of the ARR.

It is further submitted that, though the target PLF for the coal based stations are 85%, KSEB has estimated the energy availability for the year 2012-13 at an availability of 88% for Talcher-II and 89% for Ramagundam station.

For the year 2011-12, Hon'ble Commission has approved 3027MU from Talcher-II at generator bus and 2229.90 MU from Ramgundam- STPS. Though the capacity allocation from these stations has not changed, for the year 2012-13 KSEB has estimated the energy availability from Talcher-II at generator bus as 3113.74 MU and 2359.28 MU from Ramagundam at Generator bus.

Further, the actual generation from these two stations during the year 2011-12 from April-2011 to December-2011 is detailed below.

Month	Talcher-II		Ramangundam	
	Approved	Actuals	Approved	Actuals
	(MU)	(MU)	(MU)	(MU)
Apr-11	260.54	301.70	210.46	192.05
May-11	269.23	311.04	217.47	235.08
Jun-11	260.54	281.13	210.46	239.05
Jul-11	269.23	209.58	217.47	243.64
Aug-11	269.23	229.79	217.47	240.24
Sep-11	260.54	189.02	210.46	190.84
Oct-11	269.23	220.33	217.47	177.22
Nov-11	260.54	260.85	210.46	203.18
Dec-11	269.23	267.45	217.47	210.87
Total	2388.32	2270.88	1929.19	1932.18
Short fall		5%		-0.2%

As detailed above, there was a reduction of 5% on the energy availability from Talcher-II and the difference was marginal for Ramagundam. The energy availability from NLC

		<p>stations also not improved from the quantity approved in the order on ARR &ERC for the year 2011-12.</p> <p>It is further submitted, KSEB do not get any additional allocation from these stations. However, the stake holder has 'concluded that the energy availability from these stations would be 856 MU more than that estimated by KSEB' without detailing the base/assumptions on which they have arrived at the figures. The stakeholder themselves has provided the actuals for the year 2009-10 and 2010-11. However, the estimate they arrived was about 13% higher than the actuals for the previous years. NTPC and NLC management has to install additional machines at these two stations to provide the additional energy as estimated by the stakeholder.</p> <p>Thus KSEB is of the opinion that, the energy availability estimated by M/s HT&EHT association is without any basis and done deliberate attempt to over estimate the energy availability.</p> <p>Hence, Hon'ble Commission may kindly direct the stakeholder to provide the rationale for estimating such a higher availability from CGS.</p>
	<p>Energy availability from Koodamkulam station (Para 3-80 & 3-81)</p>	<p>Though the works of the Kudamkulam power station has resumed during March-2012, the authorities are yet to declare its schedule of commissioning. Usually nuclear stations require two to three months from the date of synchronization for commercial operation. Even today (25th of March-2012) the date of synchronization has not been announced.</p> <p>Further, the Koodamkulam Power station was originally scheduled for commissioning in two stages within a time interval of about nine months. Hence, even if the plant starts commercial operation during the year 2012-13, there is only a remote chance to start the commercial operation of the second unit during the FY 2012-13.</p> <p>KSEB shall appraise the date of synchronization and schedule of commissioning of the 1st and 2nd unit as soon as the information is available to the Board. Hon'ble Commission can take an appropriate decision on the power regulation after taking into consideration of the actual power situation.</p>
	<p>Total energy availability & Capacity availability (Para 3-82 to 3-91).</p>	<p>As detailed above, deliberate over-estimation of energy availability from hydel and CGS, the stake holder has arrived at a target of 20524Mu for the year 2012-13. However, due to the following reasons there is very remote chance to get the power through traders and energy exchanges as envisaged in the ARR&ERC petition of KSEB for the year 2012-</p>

		<p>13.</p> <ul style="list-style-type: none"> (i) Transmission congestion in the southern region (ii) Power shortage prevailing in all the southern states. (iii) Excessive increase in energy prices for the energy transacted through short-term market. <p>Considering the details given in the ARR as well as in this submission as detailed above, Hon'ble Commission may kindly reject the objection raised by the petitioner.</p>
	Proposed power restriction (3-92 to 3-97)	<ol style="list-style-type: none"> 1. The necessity for introducing the power restriction is detailed in the ARR&ERC petition for the year 2012-13. The energy and capacity shortage anticipated for the year 2012-13 is between 10.30% -10.80%. The regulations was proposed mainly to avoid (i) dependence on liquid fuel stations (ii) reduce the wasteful and conspicuous consumption (iii) to supply electricity at affordable cost to the consumers. if no regulation is imposed on electricity usage, it may be difficult for KSEB to meet the anticipated energy demand. 2. If regulation is imposed many consumers may rise to the occasion and reduce the wasteful consumption. The efforts taken by those consumers who reduce the wasteful and luxury consumption is to be properly appreciated. At the same time consumers who can afford to pay for their consumption at marginal cost who are hence not ready to reduce the energy usage has to be charged for the excess usage at the marginal cost. 3. If no regulation is imposed on energy usage, the entire burden on procuring power from liquid fuel stations and other costly sources for meeting the additional energy requirements for those who not willing to reduce the energy usage is being uniformly distributed among entire consumers including those who are taking sincere efforts to reduce the consumption. This is against the paragraph- 8.2.1 of the National Tariff policy, which is extracted below. “Consumers, particularly those who are ready to <u>pay a tariff which reflects efficient costs</u> have the right to get uninterrupted 24 hours supply of quality power”.
	Power Purchase cost	As submitted earlier, by deliberately over estimating energy availability from hydel and CGS, the stakeholder has presumed that, there is no necessity for scheduling power from

		<p>BDPP, KDPP and traders and energy exchanges as detailed in the ARR&ERC petition. KSEB has already submitted that, the energy projections by the stakeholder is totally hypothetical and far from reality. Even with the restrictions as proposed in the ARR, the total cost of generation and power purchase for the year 2012-13 is Rs 5659.19 MU.</p> <p>KSEB vide its letter dated 09-04-2012 has submitted the likely cost of generation and power purchase if no restrictions was imposed. The cost of generation and power purchase for the year 2012-13 with out any restriction would be Rs 6562.00 crore as against Rs 4937.00 crore estimated by the stake holder.</p> <p>By deliberately under-estimating the power purchase cost, the utility may not be in a position to meet its power purchase obligation and supply electricity to consumers. Considering the critical financial position of KSEB, if the cost of power purchase allowed is not sufficient, then KSEB may be permitted to limit the quantum of power purchase within the amount allowed in the approved ARR and KSEB has no objections if KSERC allows the stake holder to procure the balance quantum required for his use from short-term market or other sources at their choice.</p>
	<p>Para 3.101 to 3.133 Interest and Finance charges</p> <p>While claiming gap, after gap for the period from 2005-06 to 2007-08 in true up petitions filed, how did fund were available to place Fixed deposits.</p>	<p>The HT-EHT consumer association has been participating in all the previous proceedings on ARR&ERC petition, truing up petitions, review petitions filed by KSEB against the orders on ARR, truing up etc. The stake holder is also aware of the fact that, KSEB's accounts are audited and certified by the Comptroller and Auditor General of India. During the proceedings of the truing up of accounts of the previous years up to the FY 2010-11, the stake holder is getting the copies of the C&AG audited accounts as well as all the details related to accounts of KSEB. Here, the stake holder pretending that, they are ignorant about the accounts of KSEB.</p> <p>Further, the stake holder may please note that, in the ARR &ERC for the year 2012-13, KSEB had submitted the details of the fixed deposit made out of operating surplus during the period from 2005-06 to 2011-12 (vide the Table 8-6 of the ARR), the details of the outstanding capital liabilities during the period from 2004-05 to 2010-11 (Table-8.2 of the ARR), the year wise details of the reduction in interest and finance charges during the period from 2003-04 to 2010-11 (table 8-3 of the ARR), details of the capital investments made during the period from 2003-04 to 2010-11 (Table 8-4 of the ARR), the details of depreciation allowed by the Hon'ble Commission during the period from 2003-04 to 2010-11 etc. The same details was already brought to the attention of the Hon'ble</p>

		<p>Commission vide the review petition filed by KSEB against the Commission's order on Truing up of accounts for the year 2007-08 and 2009-10. The above details narrate a clear picture on the efforts taken by KSEB to reduce the capital liabilities and interest and finance charges. A brief summary of the efforts taken by KSEB to reduce capital liabilities and the interest and finance charges is detailed below.</p> <p>(i) The interest and finance charges for the year 2012-13, claimed on the outstanding capital liabilities was Rs 622.16 crore. KSEB could reduce the same to Rs 120.85 crore during the year 2010-11. i.e., over the span of eight years, KSEB could reduce the interest and finance charges by Rs 501.31 crore. The cumulative reduction on interest and finance charges during the said period was Rs 2421.58. The details are given as Table 8-3 of the ARR & ERC petition. The objector may appreciate the fact that, the consumers including the objector has benefited to the extent of Rs 2421.58 crore during the said period.</p> <p>(ii) The outstanding capital liabilities as on 31-03-2004 was Rs 5355.65 crore and the same as on 31-03-2011 was Rs 1066.49 crore only. i.e., during the said period from 2004-05 to 2010-11, KSEB was able to reduce the capital liabilities by Rs 4289.16 crore. The details are given under Table 8-2 of the ARR.</p> <p>(iii) It is further submitted that, despite the reduction in capital liabilities, during the said period from 2003-04 to 2010-11, KSEB has made a total capital investment of Rs 5176.07 crore.</p> <p>It is noted that KSEB had operating surplus during a short period from 2005-06 to 2007-08 mainly due to the sale of surplus power outside the state on account of copious of monsoon received during that period. KSEB had deposited the surplus available for specific purpose-repaying the long-term capital liabilities. It is also noted that KSEB has been taking over drafts at a reduced rate against the deposits made. Thus KSEB has able to get over draft at reduced rate compared to the interest rate at the open market. However, the stake holders and even the Hon'ble Commission is yet to appreciate the efforts taken by the Board to reduce the outstanding capital liabilities and interest burden. The stake holder is rightly pointed out that, KSEB has no other business other than electricity generation, transmission and distribution. Hence, KSEB humbly prays before the Hon'ble Commission to analyse how KSEB could able to reduce the capital liabilities and interest burden during the said period. The efforts taken by the Board to reduce the capital liabilities and interest and finance charges is detailed under</p>
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	<p>paragraph 8.2.6 to 8-2-12. Further, the fixed deposit made by KSEB out of its operating surplus during the period from 2005-06 to 2008-09 specifically for repaying the past capital liabilities is also detailed under Table-8.6 of the ARR &ERC petition.</p> <p>However, without appreciating these facts, while approving the truing up of accounts of KSEB for the years 2005-06, 2007-08 and 2008-09 has approved huge revenue surplus and ordered to adjust the surplus against the revenue gap for the subsequent years. Vide the review petition on truing up of accounts for the years 2007-08 and 2008-09, KSEB with facts submitted before the Hon'ble Commission that, all the operating surplus available with KSEB has deposited with financial institutions specifically for meeting the capital liabilities and the same has utilized by KSEB during the subsequent years 2009-10, 2010-11 and 2011-12. Though Hon'ble Commission has not appraised the issue raised by KSEB, reduction on interest and finance charges on account of the above decision of the Board was fully passed on to the consumers.</p> <p>In order to appraise the subject matter to the Commission and other stake holders, KSEB may file a separate petition before the Hon'ble Commission.</p>
Whether the approval of the Commission obtained for creation of pension fund out of revenue from tariff.	The matter was well appraised before the Commission. However, as stated earlier, Hon'ble Commission has not considered the FD created including the amount earmarked for creation of pension fund.
Net dues from Government as on 31.03.2008 has been given as Rs.1600 crore against Rs.2000 crore in an earlier version of the claim.	The stake holder may note that, the Rs 2000/- crore is the net amount receivable from Government as on 31-03-2006 where as the Rs 1600.00 crore is the same receivable from Government as on 31-03-2008 after accounting the receivable and payable between the Government and Board during the FY 2006-07 and 2007-08.
Under no circumstances the subsidy dues are off set against section 4 duty.	<p>The objector and their members are claiming many benefits through the Government including pre-82 tariff concessions, pre-92 tariff concessions, exemption from payment of interest charges. All these amount foregone by KSEB on account of the specific directions of the State Government has been accounted as subsidy receivable from Government.</p> <p>The stakeholder should not take a double standard on the issue. On one hand they want to get tariff concessions and many reliefs from Government and on the other hand they want KSEB to bear all the liabilities.</p>
Maturity proceeds of FD to the tune of Rs. 688 crore can be used for working capital and hence interest claimed Rs.96 crore towards working capital interest need not be allowed.	<p>The stake holder may be aware that, Hon'ble Commission has yet to admit the corpus created for pension fund.</p> <p>Even though, the FDs were created for the corpus of the proposed pension fund, overdrafts have been availed against such FDs in order to tide over financial strains and</p>

		<p>to save cost. The Board has to remit the entire OD with interest before claiming maturity proceeds on due date. Hon'ble Commission may kindly note that the objector, at one side arguing in favor of adequate funding to take care of terminal benefits and trying to reap rewards consequent to the elimination of terminal benefits in ARR and at the same time advising utilization elsewhere of whatever funds available towards the cause. As per the accepted accounting principles the pension fund should be maintained separately. And Board has already taken steps for accounting the terminal benefits on funded basis. Further, the interest on OD projected by the Board is based on what has actually been availed with minimal increase, which does not even cover the revenue gap in its entirety. Hon'ble Commission may kindly note that the Board has to incur this expenditure for the very survival considering the huge revenue gap.</p>																									
	Capital cost	<p>KSEB could not understand the rationale behind the objections raised by the stakeholder that, approval may be given for the capital expenditure to the extent of Rs 980.00 crore.</p>																									
	<p>Computation of Working capital requirement based on commonly accepted formula reveals that the Board does not have any working capital requirement.</p>	<p>The argument raised by the objector is baseless. Working Capital is the fund required for the day to day operation of the business. In the case of manufacturing organizations, it may be taken as current asset-current liabilities. However, in the case of service utilities the concept of cash deficit should be used for its calculation. On an average the cash inflow from sale of power is about Rs.500 crores where as cost of power purchase alone amounts to Rs.450 crores to Rs.480 crores per month. After considering employee cost, R & M cost, A& G expenses etc. the total monthly cash requirement is about RS.600 Crore-Rs.650 crores leaving a revenue short fall of Rs.150 crore to Rs.200 crore per month, the variation is mainly on account of cost of power purchase. The stakeholder may be aware that, though Hon' Commission has approved the revenue gap Rs 928.62 crore for the year 2011-12, the tariff was not revised to mobilize additional revenue to bridge the approved gap. Further, the actual revenue gap for the year 2011-12 was about Rs 2118.48 crores. In order to meet the revenue shortfall, KSEB has to depend heavily on overdraft from financial institutions. The details of overdraft availed from financial institutions upto January-2012 is given below.</p> <p style="text-align: center;">Overdraft availed during the period from Apr-10 to Jan-12</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>OD+STL BALANCE</th> <th>Increase/ Decrease over previous month</th> <th>MAXIMUM OD+STL BALANCE DURING THE MONTH</th> <th>Increase/ Decrease over previous month</th> </tr> <tr> <td></td> <td>(Rs. Cr)</td> <td>(Rs. Cr)</td> <td>(Rs. Cr)</td> <td>(Rs. Cr)</td> </tr> </thead> <tbody> <tr> <td>30-Apr-10</td> <td>642.97</td> <td></td> <td>848.77</td> <td></td> </tr> <tr> <td>31-May-10</td> <td>679.75</td> <td>36.78</td> <td>899.60</td> <td>50.83</td> </tr> <tr> <td>30-Jun-10</td> <td>707.27</td> <td>27.52</td> <td>939.61</td> <td>40.01</td> </tr> </tbody> </table>	DATE	OD+STL BALANCE	Increase/ Decrease over previous month	MAXIMUM OD+STL BALANCE DURING THE MONTH	Increase/ Decrease over previous month		(Rs. Cr)	(Rs. Cr)	(Rs. Cr)	(Rs. Cr)	30-Apr-10	642.97		848.77		31-May-10	679.75	36.78	899.60	50.83	30-Jun-10	707.27	27.52	939.61	40.01
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The respondent has further commented that, the excess energy generated in September 2011, KSEB sold the hydel power for Rs 2/unit. This required proper verification.	The respondent may please note that, the maximum water can be stored in the KSEB reservoirs is to the extent of 4000MU only. Due to the copious monsoon received during the month of September-2011, there was threat of spillage of water in all KSEB reservoirs including Idukki reservoir. Further the energy demand of the State during night off-peak hours is also less. However, to meet the peak demand KSEB has to schedule the full allocation from CGS. Considering the increase in hydel to avoid the spillage of water in addition to the CGS has resulted into surplus energy during night off peak hours of few monsoon days. The surplus energy has sold through short-term market at an average rate																																																																																																

		of Rs 2.00 per unit. It is further submitted that, the total surplus sale during the month of September-2011 was less than 10 MU only.
	10) Capital investments: KSEB has not furnished detailed plan for capital expenditure. Hence not allow Rs 1449 Cr towards capital expenditure	KSEB vide the letter dated 6-2-2012 had submitted the details of the Capital Investments in Generation, Transmission and Distribution. Hon'ble Commission has raised certain queries on the details furnished by the Board and additional details as required by the Commission shall be furnished separately.
	Depreciation	The argument of the stakeholder is totally baseless. Hon'ble Commission may be aware of the rate of depreciation allowed by other regulators across the country. Hon'ble Commission may kindly provide the depreciation as per the prevailing CERC regulations.
	<p>Employee expenses Para 3.158 to 3.203. Employee cost. Measures to improve productivity have not been included in the new wage agreement, it would be reasonable to assume that the management has failed in its duty to manage the interests of all stakeholders.</p> <p>In respect of the arguments raised by the Board in favour of DA, considering that DA is a mechanism to address the increase in cost of living, which is measured by WPI and CPI why, is it that DA can not be linked to these indices. KSEB employees are not Government employees then why does DA allowed to Government employees have to be allowed to Board employees as well.</p> <p>Why DA is released to the retired employees? How it is that Government policy are applicable to KSEB employees?</p>	<p>The objectioner has argued that, the employee cost of KSEB has increased by 403% over a span of 14 years from Rs 443.64 crore during 1999-2000 to Rs 2230 crore in 2012-13. The objectioner has also stated that, Hon'ble Commission may not approve the pension liabilities for the year 2012-13. They further stated that, since KSEB employees are not Government employees, the DA and pay revisions shall not be allowed to Board employees. Accordingly, the objectioner has recommended to approve Rs 947.00 crore as employee cost for the year 2012-13 as against Rs 2231.46 crore projected by KSEB.</p> <p>In this matter KSEB may submit that,</p> <ol style="list-style-type: none"> (i) Hon'ble Commission has already taken a clear stand on DA release, which was communicated to KSEB vide its letter dated 28th July-2010. The same was also communicated to all concerned through the press release dated 28th July-2010 (ii) Hon'ble Commission has also taken the stand that, till separate arrangements are made for meeting pension liabilities, it may be treated as a pass through item. (iii) The cost escalation due to inflation etc are beyond the control of the Board. The objectioner may be aware that, the daily wages of an unskilled labour during the year 1999-2000 was about Rs 100/- per day where as the same at present is Rs 550/- day, i.e., an escalation of 450% during the said period. <p>It is further submitted to the Hon'ble Commission that, the stakeholder is making adverse remarks on employee cost of KSEB without approving the facts fully. The stakeholder is fully aware of the fact that, in the present legal environment, KSEB has first to meet the pensionary liabilities, even before meeting the salary and other benefits of serving employees.</p> <p>In this matter, KSEB like to submit before the Commission that, as a distribution</p>

licensee, all the cost of KSEB including employee cost may be compared on normative basis of per unit of energy sold. There is no meaning in comparing the absolute values of employee cost without comparing the increase in energy sale, growth rate of consumer strength, capital investments etc made in the year.

The per unit cost of employees of KSEB (including pension) during the period from 2006-07 to 2011-12 is given below.

Year	Employee cost	Annual energy sale	Employee cost	(%) increase of employee cost over 2006-07
	(Rs.Cr)	(MU)	(Rs/unit)	(%)
2006-07	898.09	11331.00	0.79	
2007-08	904.87	12049.85	0.75	-5.26
2008-09	1255.19	12414.32	1.01	27.57
2009-10	1451.53	13971.09	1.04	31.08
2010-11	1712.80	14547.90	1.18	48.54
2011-12	1912.18	15782.49	1.21	52.86

It can be seen from the above that, the employee cost of KSEB has increased from Rs 0.79 per unit to Rs 1.21 per unit. It is further submitted that, during the same period, the rate of increase in the inflation was 67.45%. Taking the above rate as basis the employee cost for the year 2011-12 would have been Rs 1.33 per unit as against the actuals of Rs 1.21 per unit. The details are given below.

Year	Inflation	Cumulative inflation	Employee cost admissible (based on inflation)	Reduction in employee cost (compared to the same admissible as per rate of inflation)
	(%)	(%)	(Rs/unit)	(Rs/unit)
2006-07	6.76		0.79	0.00
2007-08	6.21	13.39	0.90	0.15
2008-09	9.09	23.70	0.98	-0.03
2009-10	12.32	38.94	1.10	0.06
2010-11	10.53	53.57	1.22	0.04

		2011-12	9.04	67.45	1.33	0.12
		<p>As stated above, there is no meaning in comparing the absolute employee cost without comparing the growth in energy sale, consumer strength etc. Further, the stakeholder is usually comparing the employee cost of KSEB with that of a typical manufacturing industry. This is totally wrong due to the following.</p> <p>(i) The business activities of a distribution utility, i.e., consumer strength, energy sale, asset etc keep on increasing every year.</p> <p>(ii)The risk associated in a power utility are entirely different from that of a manufacturing industry.</p> <p>In this matter, kind attention is invited to the section-133 of the Electricity Act-2003, which is extracted below.</p> <p>“133. (1) The State Government may, by a transfer scheme, provide for the transfer of the officers and employees to the transferee on the vesting of properties, rights and liabilities in such transferee as provided under section 131. (2) Upon such transfer under the transfer scheme, the personnel shall hold office or service under the transferee on such terms and conditions as may be determined in accordance with the transfer scheme:</p> <p>Provided that such terms and conditions on the transfer shall not in anyway be less favorable than those which would have been applicable to them if there had been no such transfer under the transfer scheme:</p> <p>Provided further that the transfer can be provisional for a stipulated period. <i>Explanation:</i> - For the purposes of this section and the transfer scheme, the expression "officers and employees" shall mean all officers and employees who on the date specified in the scheme are the officers and employees of the Board or transferor, as the case may be.”</p> <p>Considering the submission as detailed above, the objections raised by the stake holder regarding employee cost may be summarily rejected.</p>				
	<p>Till date, pension liabilities of the Board remain unfunded. Board has claimed that it is planning to set up a pension fund and has earmarked fund for the purpose. What happened to the fund and where are the funds earmarked for the purpose.</p>	<p>As detailed under Table 9-6 of the ARR, KSEB has earmarked Rs 525.00 crore during the year 2007-08 and Rs 80.00 crore during 2008-09, which will mature during 2012-13 and 2013-14 respectively. KSEB proposes to utilise the same for creating a master fund for meeting the pension liabilities. However, Hon’ble Commission has yet to approve the FD made including the amount earmarked for creating pension fund.</p>				

	Now Government employees are on a co funded pension scheme, why was this not implemented in Board.	To the best information of the Board, Government of Kerala has not announced any scheme as pointed out by the objectioneer.
	Pay revisions are not mandatory and automatic but they are discretionary.	Memorandum of Settlement relating to wages and allowance and service conditions in KSEB has been made in compliance with the provisions contained under section 18 of the Industrial Disputes Act, 1947. The settlement so arrived at is mutually binding .
	Repairs and Maintenance Para 3.204 to 3.208	
	R&M expenses should be allowed on the basis of inflationary indices.	The objectioneer has failed to appreciate the business growth of the utility during each year which has a direct relation with R&M expenses. Further, assets are added as part of the business growth of the utility. The adoption of WPI cannot be justified for a consumer state like Kerala where actual inflationary pressure is more than inflation rate determined on the basis of CPI and WPI. A&G and R&M expenses are directly connected with business growth, inflation, age of assets and asset addition etc. If these factors are properly analyzed, it can be seen that the Board's projections are reasonable and realistic. Hence, in addition to the inflation, business growth and associated increase shall also be considered while approving expenses.
	Para 3.215 to 3.217 A&G expenses	
	Expenses are to be allowed by indexing to weighted average inflation rate.	The business growth of the utility includes number of new connections provided during each year, increase in energy sales etc, which have a direct relation with A&G expenses. Hence, in addition to the inflation, business growth and associated increase should only considered while approving A&G expenses. The objectioneer may be aware of the fact that, in a cost plus regime, the assured return as well as reasonable expenses should be allowed to recover so as to ensure financial sustainability of the distribution licensee.
	3(1) duty should be disallowed.	Since the duty under question is a statutory payment, non-allowance would invariably affect the financial sustainability of the Board.
	Para 3.218 to 3.220 ROE To allow Rs 50 crore as token return until a final decision is taken on the petition.	Government, vide the order G.O (Ms) No. 35/10/PD dated 13-12-2010 has reiterated that, KSEB has a Government Capital of Rs 1553.00 crore w.e.f 1998. The respondent may please note that any statute or policy or regulation does not allows to provide the "token return" as recommended by the objectioneer. Further, Hon'le APTEL vide its judgment dated 17-01-2012 has decided the matter in favour of KSEB.
	Para 3.221 to 3.223 Revenue requirement for 2012-13. A net revenue requirement of Rs.6363 crore may be approved against Rs. 9272 crore as per ARR.	As detailed above, the respondent has deliberately under estimated various expense components with out any basis, and also without considering the provisions of the Electricity Act-2003, Tariff Policy etc. Hence KSEB may request before the Hon'ble Commission to summarily reject the objections raised by the respondent.

2	Biju. T. Nair, Head-deployment, Indus Tower Ltd, Cochin	
1	The objector requested the Hon. Commission to reduce the tariff applicable to commercial consumers like Indus Towers since the cost coverage is 160% which is very much higher than +/-20% of the ACS and not in line with the spirit of NTP.	The issues raised by the respondent may be considered while finalizing the tariff proposals
2	The objector requested the Hon. Commission to consider classifying telecom towers under a separate sub-category within the existing Non-Residential/Commercial Supply Category taking a cue from the Section 62 (3) of the Electricity Act 2003, with a suitable relaxation in the applicable tariff given the socially favorable nature of telecom industry and the nearly flat load profile and high load factor which leads to a lower cost of serve for such consumers.	
3	The objector requested the Hon. Commission to consider the proposal of compulsory installation of AMR meters and roll out of consolidated billing for large consumers with multiple connections.	
3,4	Seksaria. P. C., PATSPIN India Ltd., V. N. Balakrishnan, GTN Textiles Ltd, V.N.Balakrishnan, Sr. VP(T&O) GTN Textiles Ltd,	
1	The objectors requested the Hon. Commission not to accede to KSEB's proposal for any increase in power tariff as any move on increase in power cost can even lead to close down of the Mills and denial of livelihood to more than 1000 families.	The respondent may please note that, the cost of electricity in the long term. Medium term and short-term market has been continuously increasing. As indicated under Table 7-17 of the ARR, the cost of power purchase from Central Generating stations has increased by about 60% during the last four years. Further, the yearly inflation is about 10% every year and it has resulted in entire cost of materials and labour required for carrying out maintenance works etc. Further, the Electricity Act-2003 also mandates the recovery of the cost of electricity in a reasonable manner from its consumers. The proposed regulation is to limit the wasteful consumption of electricity so that KSEB can limit the power purchase from costly sources to a greater extent.
2	The objectors made some suggestions before the Hon. Commission a) To generate maximum power from the power plants.	KSEB has noted the suggestions and it is submitted that, KSEB has been taking sincere efforts to optimise the generation and power purchase, T&D loss reduction etc.

	<ul style="list-style-type: none"> b) By effective utilization of generated power. c) Effective management of power by reducing the subsidy. d) By minimizing the Transmission and Distribution losses. e) By controlling the employee expenses etc. 	
7	Jayathilakan, Past Chairman, Kerala State Productivity Council.	
1	<p>The fundamental duty and responsibility of any utility is to provide the required power to all the consumers at reasonable cost. Imposing power restriction on any category is the culmination of in efficiency of the Board. The objector requested the Honourable Commission not to allow the 15% power restriction sought by KSEB.</p>	<p>KSEB admit the fact that, we are duty bound to provide quality power at reasonable cost to its consumers. However, the respondent may be aware that, due to objections from environmentalist and other interested groups, KSEB could not start new major hydel and thermal power projects in the State. At present more than 65% of the total power requirement of the State is being met by importing power from outside the State. However, there is serious limitations on importing power due to corridor constraints in the southern regions comprising Andhra Pradesh, Tamilnadu, Karnataka, Kerala and Pondichery.</p> <p>Further, the electricity demand in the State has been showing unprecedented hike during the last FY 2011-12.</p> <p>However KSEB has been taking all efforts to source power through Traders and Exchangers etc. at competitive rate. But the cost of sourcing power from these sources is prohibitely high. The present financial condition of the Board do not permit to source power at about Rs.12/ per unit and supply the same at Rs.3.45/ per unit.</p>
2	<p>Lack of transmission capacity has been cited as a reason for power restriction. This is due to the inefficiency of KSEB over the years to accomplish the capital works projected.</p>	<p>It seems that, the respondent is not aware of the facts fully. There was no transmission constraints within the state of Kerala to transmit power. But the present crisis is mainly due to the limitations on importing power from outside the State to Kerala. As the Central Transmission Utility, PGCIL has been co-ordinating the activities on inter-state transmission of power.</p>
3	<p>The objector requested the Honourable Commission not to allow the full proposed capital outlay of Rs. 1448.88 Crores and allow only the achievable amount of around Rs. 1000 Crores based on the achieved performance during the last few years.</p>	<p>Capital expenses of the Board are showing an increasing trend over the years and hence the capital expenditure at the projected level can be achieved in 2012-13.</p>
4	<p>The objector requested the Honourable Commission not to allow the loss reduction of 0.25% and issue orders to maintain at least the earlier proposed and accepted loss reduction of 0.69%.</p>	<p>The respondent may please note that, KSEB has already reduced the T&D loss from 30.76% during the year 2001-02 to 16.09% during the year 2010-11. The respondent may also note that, beyond a certain level the incremental cost required to reduce the technical loss is inversely proportional.</p>

5	The objector requested the Honourable Commission to impose conditions in order so as to restrict the employee cost within the approved limits and comparable with the industries in general.	Argument regarding abnormally higher employee cost in KSEB is without substantiation. The objector should have compared the employee cost of similarly placed utilities before making this observation. Pay structure of industries differ and therefore there is no meaning in comparing employee cost prevailing in industries in general.
6	The objector requested the Honourable Commission to give directions to the Board to submit proposals to eliminate cross subsidy in stages so that the cost burden of KSEB is shared by all segments of consumers.	KSEB has already filed tariff proposals before the Hon'ble Commission, which address to reduce the cross subsidy to certain extent. However, the respondent may please note that the Electricity Act-2003 does not mandate for complete elimination of the cross subsidy.
10	<u>General Secretary, Binani Zinc.</u>	
	Capital investments: KSEB has not furnished detailed plan for capital expenditure. Hence not allow Rs 1449 Cr towards capital expenditure	KSEB vide the letter dated 6-2-2012 has submitted the details of the Capital Investments in Generation, Transmission and Distribution. Hon'ble Commission has raised certain queries on the details furnished by the Board and additional details as required by the Commission shall be furnished separately.
11	<u>V. V. Kurup, Dy. General Manager (Engineering & Construction), Bharat Petroleum Corporation, Kochi Refinery</u>	
1	The objector requested the Honourable Commission to reject the request of KSEB to impose power restriction in 2012-13 as the additional financial burden due to power restriction will adversely affect the petroleum pricing and investment plans.	The respondent may please note that, due to objections from environmentalist and other interested groups, KSEB could not start new major hydel and thermal power projects in the State. At present more than 65% of the total power requirement of the State is being met by importing power from outside the State. However, there is serious limitations on importing power due to corridor constraints in the southern regions comprising Andhra Pradesh, Tamilnadu, Karnataka, Kerala and Pondichery. Further, the electricity demand in the State has been showing unprecedented hike during the last FY 2011-12. Considering the anticipated contingency on power supply, KSEB proposed to regulate the power supply as 85% of the previous year consumption shall be provided at normal tariff approved by the Hon'ble Commission from time to time.
2	The objector requested the Honourable Commission to set aside any proposal for tariff hike for industries as any drastic increase in the tariff rate will upset BPCL's investment plans in Kerala and the Refinery operation margins as they are based on the present power tariff.	The respondent may please note that, the cost of electricity in the long term. Medium term and short-term market has been continuously increasing. As indicated under Table 7-17 of the ARR, the cost of power purchase from Central Generating stations has been increased by about 60% during the last four years. Further, the yearly inflation is about 10% every year and it has resulted in to cost of materials and labour required for carrying out maintenance works etc. Further, the Electricity Act-2003 also mandates the recovery of the cost of electricity in a reasonable manner from its consumers. Hence, KSEB is not able to provide supply without recovering the actual cost from its consumers.

13	Shaji Sebastian, President, Small scale Industries.	
1	Board has not submitted Tariff proposal to bridge revenue gap approved on ARR for 2011-12.	KSEB had filed tariff proposals before the KSERC on 30-03-2012
2	Cross subsidy level shall be fixed at +/-20% of ACOS and shortfall should be met by Government.	There is no provisions in the Electricity Act-2003 to direct the Government to provide subsidy.
3	Government should take over pension liabilities, enhancement of retirement age, and scheme for pension and PF in future.	The decision has to be taken at the Government level.
4	No major schemes under generation sector	The respondent may be aware that, the environmentalist and other interested groups has been raising objections against new hydel projects in the State.
5	Generation through Atomic plants should be seriously considered.	Central Government has to take an appropriate decision on the matter.
6	Exemption of domestic consumption up to 300 units is not in order.	KSEB has make the proposals to regulate the power supply on all categories of consumers including the domestic categories.

23, 36.KINESCO power and utilities Pvt.ltd,Kinfrapark Office,Kochi

<p>1.It is not agreeable with the proposal of KSEB to charge 85% of the last year's consumption at present tariff and charging Marginal cost of Rs.10.31 for the consumption above 85%.The industrial consumers will severely impacted if this revision is imposed. Hence proposed that "The retail supply Tariff of KSEB may be revised restricted to a maximum of 20%"</p>	<p>The respondent may please note that the over and above energy available at hydel and CGS, KSEB has been trying to source power at cheaper rate from Traders and energy Exchangers. However there is serious transmission constraints on importing power from Traders and energy exchangers from out side the state. Though energy is available from liquid fuel stations at an excessive rate of Rs.12/- per unit, the present financial condition of the Board do not permit to procure power at Rs.12/- per unit and to supply at Rs.3.45/- per unit</p> <ol style="list-style-type: none"> 1. The regulations on power supply was proposed mainly to avoid (i) dependence on liquid fuel stations (ii) reduce the wasteful and conspicuous consumption (iii) to supply electricity at affordable cost to the consumers. if no regulation is imposed on electricity usage, it may be difficult for KSEB to meet the anticipated energy demand. 2. If regulation is imposed many consumers may rise to the occasion and reduce the wasteful consumption. The efforts taken by those consumers who reduce the wasteful and luxury consumption is to be properly appreciated. At the same time consumers who can afford to pay for their consumption at marginal cost who are hence not ready to reduce the energy usage has to be charged for the excess usage at the marginal cost. 3. If no regulation is imposed on energy usage, the entire burden on procuring power from liquid fuel stations and other costly sources for meeting the additional energy requirements for those who not willing to reduce the energy usage is being uniformly distributed among entire consumers including those who are taking sincere efforts to reduce the consumption. 4. Proposals for revising the existing tariff structure of all Categories of Consumers
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	including Bulk Supply to other Licensees has been filed before the Hon'ble commission on 30-03-2012.
37. Shri. A.R. Satheesh, Carborandum Universal Ltd	
1. The revenue gap of Rs. 3240 Cr is not acceptable. This is due to total mismanagement.	Board has estimated the expense components of ARR based on the past actuals, prudent utility practices and methodology adopted by the Hon'ble Commission for approving the ARR, Tariff orders and Truing Up orders during the past. The methodology adopted by KSEB for estimating each component of ARR are explained in detail in the ARR & ERC petition.
Reject the proposal for 85 % restriction. If cost of the supply is the reason it may be addressed through a Tariff Petition.	<ol style="list-style-type: none"> 1. The necessity for introducing the power restriction is detailed in the ARR&ERC petition for the year 2012-13. The energy and capacity shortage anticipated for the year 2012-13 is between 10.30% -10.80%. The regulations were proposed mainly to avoid (i) dependence on liquid fuel stations (ii) reduce the wasteful and conspicuous consumption (iii) to supply electricity at affordable cost to the consumers. If no regulation is imposed on electricity usage, it may be difficult for KSEB to meet the anticipated energy demand. 2. If regulation is imposed many consumers may rise to the occasion and reduce the wasteful consumption. The efforts taken by those consumers who reduce the wasteful and luxury consumption is to be properly appreciated. At the same time consumers who can afford to pay for their consumption at marginal cost who are hence not ready to reduce the energy usage has to be charged for the excess usage at the marginal cost. 3. If no regulation is imposed on energy usage, the entire burden on procuring power from liquid fuel stations and other costly sources for meeting the additional energy requirements for those who are not willing to reduce the energy usage is being uniformly distributed among entire consumers including those who are taking sincere efforts to reduce the consumption. This is against the paragraph- 8.2.1 of the National Tariff policy, which is extracted below. “Consumers, particularly those who are ready to pay a tariff which reflects efficient costs have the right to get uninterrupted 24 hours supply of quality power”. <p>KSEB had filed the Proposals for revising the existing tariff structure of all Categories of Consumers including Bulk Supply to other Licensees before the Hon'ble commission on 30-03-2012.</p>

3. Employee cost hiked 3 times between FY 2007-08 and FY 2012-13, which is against the directions of Commission that “the salary revision shall completely through efficiency gain”.

The objector has argued that, the employee cost of KSEB has increased by 403% over a span of 14 years from Rs 443.64 crore during 1999-2000 to Rs 2230 crore in 2012-13. The objector has also stated that, Hon’ble Commission may not approve the pension liabilities for the year 2012-13. They further stated that, since KSEB employees are not Government employees, the DA and pay revisions shall not be allowed to Board employees. Accordingly, the objector has recommended to approve Rs 947.00 crore as employee cost for the year 2012-13 as against Rs 2231.46 crore projected by KSEB.

In this matter KSEB may submit that,

(i). Hon’ble Commission has already taken a clear stand on DA release, which was communicated to KSEB vide its letter dated 28th July-2010. The same was also communicated to all concerned through the press release dated 28th July-2010

(ii). Hon’ble Commission has also taken the stand that, till separate arrangements are made for meeting pension liabilities, it may be treated as a pass through item.

(iii). The cost escalation due to inflation etc are beyond the control of the Board. The objector may be aware that, the daily wages of an unskilled labour during the year 1999-2000 was about Rs 100/- per day where as the same at present is Rs 550/- day, i.e., an escalation of 450% during the said period.

It is further submitted to the Hon’ble Commission that, the stakeholder is making adverse remarks on employee cost of KSEB without approving the facts fully. The stakeholder is fully aware of the fact that, in the present legal environment, KSEB has first to meet the pensionary liabilities, even before meeting the salary and other benefits of serving employees.

In this matter, KSEB like to submit before the Commission that, as a distribution licensee, all the cost of KSEB including employee cost may be compared on normative basis of per unit of energy sold. There is no meaning in comparing the absolute values of employee cost without comparing the increase in energy sale, growth rate of consumer strength, capital investments etc made in the year.

The per unit cost of employees of KSEB (including pension) during the period from 2006-07 to 2011-12 is given below.

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It can be seen from the above that, the employee cost of KSEB has increased from Rs 0.79 per unit to Rs 1.21 per unit. It is further submitted that, during the same period, the rate of increase in the inflation was 67.45%. Taking the above rate as basis the employee cost for the year 2011-12 would have been Rs 1.33 per unit as against the actuals of Rs 1.21 per unit. The details are given below.

Year	Inflation	Cumulative inflation	Employee cost admissible (based on inflation)	Reduction in employee cost (compared to the same admissible as per rate of inflation)
	(%)	(%)	(Rs/unit)	(Rs/unit)
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2009-10	12.32	38.94	1.10	0.06
2010-11	10.53	53.57	1.22	0.04
2011-12	9.04	67.45	1.33	0.12

As stated above, there is no meaning in comparing the absolute employee cost without comparing the growth in energy sale, consumer strength etc. Further, the stakeholder is usually comparing the employee cost of KSEB with that of a typical manufacturing industry. This is totally wrong due to the following.

(i).The business activities of a distribution utility, i.e., consumer strength, energy sale, asset etc keep on increasing every year.

(ii)The risk associated in a power utility are entirely different from that of a manufacturing industry.

	<p>In this matter, kind attention is invited to the section-133 of the Electricity Act-2003, which is extracted below.</p> <p>“133. (1) The State Government may, by a transfer scheme, provide for the transfer of the officers and employees to the transferee on the vesting of properties, rights and liabilities in such transferee as provided under section 131. (2) Upon such transfer under the transfer scheme, the personnel shall hold office or service under the transferee on such terms and conditions as may be determined in accordance with the transfer scheme:</p> <p>Provided that such terms and conditions on the transfer shall not in anyway be less favorable than those which would have been applicable to them if there had been no such transfer under the transfer scheme:</p> <p>Provided further that the transfer can be provisional for a stipulated period. <i>Explanation:</i> - For the purposes of this section and the transfer scheme, the expression "officers and employees" shall mean all officers and employees who on the date specified in the scheme are the officers and employees of the Board or transferor, as the case may be.”</p> <p>Considering the submission as detailed above, the objections raised by the stake holder regarding employee cost may be summarily rejected.</p>
<p>4. The KSEB has not shown any category wise cost of service for each type consumers in the proposal which is pending for many years.</p>	<p>As per the National Tariff Policy, the tariff is linked to average cost of supply only. Further, most of the Distribution utilities are yet to determine the cost of supply for different categories of consumers. The objector may note that, till the assets and liabilities of KSEB is segregated in to the three functional areas, it may be difficult to determine the CoS for each category of consumers.</p>
<p>5. Cross subsidy The tariff should be moved in a manner to reduce cross subsidy and cost of supply to a category and realisation from that category shall be on the basis of cross subsidy. The objector requests to publish cross subsidy reduction plan</p>	<p>As per section 61(g) read along with section 181(2) (zc) of the Electricity Act-2003, Commission has to make necessary regulation on the issue of reduction in cross-subsidies. As per the para 8.3.(2) of the National Tariff Policy dated 6th January- 2006, SERC is expected to notify a road map to bring the tariff with in +_20% of the average cost of supply. However, Hon’ble Commission is yet to notify the road map on reduction of cross subsidies in the State of Kerala.</p>
<p>6. The depreciation should be reworked. Depreciation should not be allowed on consumer contributions/grant funded assets</p>	<p>The objector may be aware of the fact that, all the assets including that constructed through consumer contribution is being maintained by KSEB. Also , after its useful life the</p>

	same is replaced by KSEB at its own cost. So KSEB has to claim depreciation for the assets created out of consumer contribution. Also, as per the provisions in the Electricity (Supply) (Annual Accounts) Rules, 1985, KSEB has to claim depreciation on the full cost of the assets.
7. Electricity duty should not be collected from consumers. A&G expenses mentioned in petition may be disallowed.	<p>The respondent may please note that, all the regulators including CERC has been considering all the taxes, levies and duties imposed by the Government is pass through in tariff.</p> <p>The business growth of the utility including number of new connections provided during each year, increase in energy sales etc, which have a direct relation with A&G expenses. Hence, in addition to the inflation, business growth and associated increase shall also be considered while preparing A&G expenses.</p> <p>The objectioner may be aware of the fact that, in a cost plus regime, the assured return as well as reasonable expenses should be allowed to recover so that the financial sustainability of the distribution licensee can be ensured.</p>
8. Project execution in Generation sector lacks planning and vision.	This argument is baseless. It is fact that KSEB could not start new power projects in the State due to the objections from environmentalists and other interested groups. However, KSEB has been taking steps to enter into long term agreements with traders and other generators to source power at competitive rates to meet the anticipated energy requirements.
9. KSEB source energy @Rs.10 must be with the approval of Hon. Commission or fix an upper ceiling for power purchase. Hon. Commission shall evaluate the power purchase transactions.	In order to meet the energy demand of the State, KSEB has been sourcing power through energy exchanges at rates more than Rs 10/per unit. The respondent may also aware that, KSEB has been scheduling power to the extent of 4 to 5 MU per day from liquid fuel stations to meet the energy requirement of the State.
10. Power factor incentive must be a minimum 50% of that of penalty. KVAh billing in place of kWh billing may be adopted. Payment incentive during power purchase may be extended to its consumers	Hon'ble commission may take appropriate decision
38. B.chandra Shekar,Chief Electrical distribution Engineer, Southern railway	
1. The petitioner objects that there is no provision either in Electricity Act 2003 or in the KSERC (Tariff) regulations 2003 for the licensee to charge a portion of the energy consumption at marginal cost.	As per section 62-(1)-(a) Determination- of Tariff of Electricity Act 2003 states that” <i>the appropriate commission shall determine the tariff in accordance with provisions of Act for supply of electricity by a generating company to a distribution licensee, provided that the appropriate commission may, in case of shortage of supply of electricity, fix the maximum</i>

	<p><i>and minimum ceiling of tariff for sale or purchase of electricity....”</i></p> <p>Further, paragraph 8.2.1(1) of the National Tariff Policy provides that, consumers, particularly those who are ready to pay a tariff which reflects the efficient costs have the right to get 24 hours supply of quality power.</p> <p>Due to the excessive increase on the energy demand & high cost of liquid fuel stations KSEB proposed before the Hon’ble commission to regulate the energy to be supplied to the consumers for the year 2012-13.as follows.</p> <ul style="list-style-type: none"> (i) HT,EHT, bulk consumers and Railways will be permitted to consume 85% of the average energy consumption during previous one year at the normal tariff determined by the Hon’ble Commission. (ii) LT-II, LT-IV, LT- VI (A), VI(B), VI (C), VII (A), VII(B) and VII(C) categories of consumers will be permitted to consume 85% of the average energy consumption during previous one year at the normal tariff determined by the Hon’ble Commission. (iii) Domestic consumers will be permitted to consume upto 300 units per month at the normal tariff determined by the Hon’ble Commission. (iv) The consumers will be allowed to consume energy over and above the aforesaid ceiling on payment of actual cost of additional power purchase / generation from liquid fuel stations based on the marginal cost principles. (v) LT-V Agriculture, LT-VI(D) Orphanages and public lighting are proposed to be exempted from such regulation. <p style="text-align: right;">The above proposal will come in force if the Commission approves the same</p>
<p>2. Fixing quota for energy consumption and charging the excess energy at marginal cost is not relevant to Railway traction since load profile cannot be altered as train services cannot be stopped to limit consumption of electricity. Also railways have no Captive Power Generation to limit the consumption from KSEB</p> <p>Increase in the average cost for railway Traction is disproportionate to the increase in the average cost of service. Since more trains are being introduced every year in Kerala comparing the energy consumption during previous years and fixing of quota based on last years consumption is not correct.</p>	<p>KSEB not proposes any power cut. However, due to the limitations on importing power from outside the state and to limit the dependence of prohibitively costly power from liquid fuel stations, KSEB has proposed to impose regulations on power supply as detailed above. If the consumers including railway traction limit the power consumption as 85% of the previous year average consumption, the consumers can avoid the usage of high cost power at marginal cost.</p>
<p>3. The objector remarked that by implementation of DSM help</p>	<p>Board has taken the following steps to reduce the consumption during peak hours</p>

<p>the customers to use electricity more efficiently and in doing so reduce the utility cost. DSM can be achieved through options like higher prices during peak hours, concessional rates during off peak hours etc.</p>	<ul style="list-style-type: none"> (i) As directed by the Hon'ble commission KSEB had already introduced power factor incentives, rationalized TOD tariff for HT & EHT consumers. (ii) The TOD tariff for HT&EHT tariff has rationalized w.e.f 01-01-2010. (iii) TOD tariff was introduced as an optional scheme for LT Industrial consumers. (iv) During the year 2011-12 as a part of DSM activity board has launched "Nalekkithiri Oorjam" programme for improving awareness of energy conservation among students through schools in coordination with Energy Management Centre and Education Dept. Diaries includes energy conservation tips are circulated. (v) During the year 2010-11, nearly 1.28 crore CFLs were distributed through Electrical sections of KSEB. Two 14 watt CFLs were given to domestic consumers at the rate of Rs 15/- and in exchange of two 60 watt working incandescent bulbs. (vi) The message of energy conservation was conveyed through Visual Media with the help of Cine artists and also through newspapers. This activity has played a major role in preventing load shedding.
<p>4. The average cost per unit for KSEB approved in ARR &ERC 2011-12 is Rs.3.92/- and the average cost at transmission end projected now is only Rs.3.80/-there by indirectly tariff is being hiked for subsidizing category alone without resorting to proper tariff revision proposals.</p>	<p>The respondent may please note that, at present more than 65% of the power requirement of the state is being met by importing power from outside the state and also by scheduling power from liquid fuel stations at an excessive costs of Rs 11.50 per unit. It may further submitted that, the traction tariff applicable in the Tamilnadu is Demand charge- Rs 250/kVA/month and energy charge- Rs 5.50 per unit. It is further submitted that, the TANGEDCO and KSEB has been functioning within the provisions of the Electricity Act-2003.</p> <p>Proposals for revising the existing tariff structure of all Categories of Consumers including Bulk Supply to other Licensees has been filed before the Hon'ble commission on 30-03-2012.</p>
<p>5. The quota fixed for domestic at 300 units per month is too high. There is no basis for fixing 300 units. Earlier 200 units were fixed as quota. In the case of Domestic consumption, which is subsidized there is no rational in fixing an exorbitant quota of 300 units per month which means that there is no restriction on domestic consumption.</p>	<p>The necessity for introducing the power restriction is detailed in the ARR&ERC petition for the year 2012-13. The energy and capacity shortage anticipated for the year 2012-13 is 10.30% and upto 10.80% respectively. The regulations was proposed mainly to avoid (i) dependence on liquid fuel stations (ii) reduce the wasteful and conspicuous consumption (iii) to supply electricity at affordable cost to the consumers. if no regulation is imposed on electricity usage, it may be difficult for KSEB to meet the anticipated energy demand.</p>

	It may be noted that, KSEB had also proposed to limit the monthly consumption of domestic categories as 300 units at the normal tariff approved by commission.
6. Electric traction was extended to Kerala on the specific invitation and assurance by Govt.of Kerala & KSEB that electricity will be provided at a cheaper rate.	The respondent may kindly verify the traction tariff prevailing to other States. The tariff prevailing in Kerala is the one among the lowest compared to other States. It may be noted that there was considerable increase in cost of power purchase since the year 2007-08.This has resulted in to widening the revenue gap during the last few years. But the tariff for railway traction has not revised in tune with the increase in cost of power purchase. This has resulted into a situation that the tariff for the railway traction has also highly subsidized in the state. KSEB as a distribution licensee has to function as per the provisions of the Electricity Act-2003. The Electricity Act-2003 mandates to recover the cost of electricity in a reasonable manner from its consumers.
7. No other Electricity Board in the country has imposed any restriction on Railway Electric Traction. Being an essential service, request to Exempt Railways from the power restrictions.	KSEB has not imposed any power cut. However, due to the reasons as explained earlier, KSEB propose to regulate the power supply to all categories including railways. The excess usage over the ceiling is proposed to charge at marginal cost.
8. Wide gap continue to exist between the projections of KSEB and that approved by commission	Usually there was wide variation between the revenue gap proposed by KSEB and the same approved by KSERC. This is mainly due to the methodology followed by the Board in preparing the ARR based on Electricity (Supply) Annual Accounts Rules -1985 and methodology adopted by the Commission for approving the same. The respondent may please note that there was considerable increase in cost pf power purchase since the year 2007-08.this has also resulted into widening the revenue gap.
9. Since KSEB failed to submit comprehensive Tariff revision and tariff rationalisation proposal Hon'ble commission may take suo-moto powers and initiate Tariff revision proceedings immediately	Proposals for revising the existing tariff structure of all Categories of Consumers including Bulk Supply to other Licensees has been filed before the Hon'ble commission on 30-03-2012.
40.BINANI ZINC LIMITED,ERNAKULAM	
1. Hydel Generation It can be seen that during all the years except 2008-09 the actual hydel generation was more than projected by KSEB. The present method of computing hydel generation is unscientific.	The detailed methodology adopted for estimating the hydel availability was discussed under para-7.2.2 of the ARR petition. Further, the energy availability from the Small Hydel Plants are estimated separately. The month wise energy availability from each hydel station is detailed under Annexure 7(2) of the ARR petition.

	<p>There may be some variation on the energy availability from hydel over the designed energy due to the variation of monsoon. However, during a normal monsoon year, the energy availability was usually within the designed energy as per the DPR of KSEB.</p> <p>It is also submitted that, Hon'ble Commission vide the review order on ARR&ERC for the year 2011-12 has admitted the fact that, there was some conceptual error on approving a higher hydel availability than the projection given in the ARR. Further, the increase in hydel availability over the projection in the ARR&ERC for the year 2011-12 was mainly due to higher inflow received during the period from June-2011 to November-2011, especially during the months of August and Spetember-2011. The details are given under Table- 6-7 of the ARR.</p> <p>Anticipating a normal monsoon for the ensuing year 2012-13, the maximum energy availability from hydel would be about 6992 MU only. Further, KSEB has been taking all efforts to make the maximum capacity</p>
<p>2. Power purchase KSEB is projecting lower availability of power from CGS. Total power requirement at periphery will be only 19420MU instead of 20226 MU projected by KSEB. If Kooodamkulam Power station is commissioned during 2012-13 around 865 MU will be available from KAPS. Whatever shortage is there during peak hours peak demand can be met by operating BDPP & KDPP also.</p>	<p>The state of the respondent is without appreciating the facts. The stakeholder may be requested to go through the details given under paragraph 7.4 of the ARR, wherein KSEB had detailed and station wise projection of energy availability from CGS for the year 2012-13. Further the month wise energy availability from CGS was given under Annexure 7(4) of the ARR.</p> <p>It is further submitted that, though the target PLF for the coal based stations are 85%, KSEB has estimated the energy availability for the year 2012-13 at an availability of 88% for Talcher-II and 89% for Ramagundam station.</p> <p>Though the works of the Kudamkulam power station has resumed during March-2012, the authorities has yet to declare its schedule of commissioning. Usually nuclear stations require two to three months from the date of synchronization for commercial operation. Even today (25th of March-2012) the date of synchronization has not been announced.</p> <p>Further, the Koodamkulam Power station is originally scheduled for commissioning in two stages within a time interval of about nine months. Hence, even if the plant starts commercial operation during the year 2012-13, there is very remote chance to start the commercial operation of the second unit during the FY 2012-13.</p> <p>KSEB shall appraise the date of synchronization and schedule of commissioning of</p>

	the 1 st and 2 nd unit as soon as the information is available to the Board. After appraising the power situation, Hon'ble Commission can take an appropriate decision on the power regulation.																																																																																				
<p>3. Energy Sale Energy sale projection is high. The objector requests to estimate energy sale based on CAGR.</p>	<p>The methodology adopted for estimating the sale forecast is detailed under Chapter-4 of the ARR. The objectioner may be aware that, the energy consumption of all categories is showing an excessive increase during the year 2011-12. This has resulted into a situation that, the energy requirement of the State has increased by about 540MU over the approved level. The details are given in the Table below.</p> <table border="1"> <thead> <tr> <th>Month</th> <th>Approved by Hon'ble Commission for the year 2011-12 (MU/day)</th> <th>Actual (MU/day)</th> <th>Actual increase over approval (MU/day)</th> <th>Increase for the month (MU)</th> <th>Percentage of increase (%)</th> </tr> </thead> <tbody> <tr> <td></td> <td>51.12</td> <td>51.30</td> <td>0.18</td> <td>5.37</td> <td>0.35</td> </tr> <tr> <td>May-11</td> <td>52.14</td> <td>54.33</td> <td>2.19</td> <td>68.03</td> <td>4.21</td> </tr> <tr> <td>Jun-11</td> <td>46.86</td> <td>47.76</td> <td>0.90</td> <td>27.15</td> <td>1.93</td> </tr> <tr> <td>Jul-11</td> <td>45.64</td> <td>47.71</td> <td>2.07</td> <td>64.11</td> <td>4.53</td> </tr> <tr> <td>Aug-11</td> <td>46.81</td> <td>48.47</td> <td>1.66</td> <td>51.43</td> <td>3.54</td> </tr> <tr> <td>Sep-11</td> <td>48.91</td> <td>49.43</td> <td>0.52</td> <td>15.51</td> <td>1.06</td> </tr> <tr> <td>Oct-11</td> <td>48.61</td> <td>52.19</td> <td>3.58</td> <td>111.02</td> <td>7.37</td> </tr> <tr> <td>Nov-11</td> <td>50.59</td> <td>51.43</td> <td>0.84</td> <td>25.32</td> <td>1.67</td> </tr> <tr> <td>Dec-11</td> <td>51.63</td> <td>53.28</td> <td>1.65</td> <td>51.27</td> <td>3.20</td> </tr> <tr> <td>Jan-12</td> <td>51.38</td> <td>52.56</td> <td>1.18</td> <td>36.63</td> <td>2.30</td> </tr> <tr> <td>Feb-12</td> <td>54.62</td> <td>55.25</td> <td>0.63</td> <td>17.55</td> <td>1.15</td> </tr> <tr> <td>Mar-12</td> <td>57.55</td> <td>59.72</td> <td>2.17</td> <td>67.37</td> <td>3.78</td> </tr> <tr> <td>Average /Total</td> <td>50.47</td> <td>51.95</td> <td>1.48</td> <td>540.76</td> <td>2.94</td> </tr> </tbody> </table> <p>KSEB has to procure additional energy to the extent of 540 MU from traders and short-term market to meet the increase in the demand over the approved level and incurred an additional cost of Rs 763.87 crore during the year 2011-12. However, the objectioner has not considered the excessive growth of the energy consumption during the year 2011-12.</p>	Month	Approved by Hon'ble Commission for the year 2011-12 (MU/day)	Actual (MU/day)	Actual increase over approval (MU/day)	Increase for the month (MU)	Percentage of increase (%)		51.12	51.30	0.18	5.37	0.35	May-11	52.14	54.33	2.19	68.03	4.21	Jun-11	46.86	47.76	0.90	27.15	1.93	Jul-11	45.64	47.71	2.07	64.11	4.53	Aug-11	46.81	48.47	1.66	51.43	3.54	Sep-11	48.91	49.43	0.52	15.51	1.06	Oct-11	48.61	52.19	3.58	111.02	7.37	Nov-11	50.59	51.43	0.84	25.32	1.67	Dec-11	51.63	53.28	1.65	51.27	3.20	Jan-12	51.38	52.56	1.18	36.63	2.30	Feb-12	54.62	55.25	0.63	17.55	1.15	Mar-12	57.55	59.72	2.17	67.37	3.78	Average /Total	50.47	51.95	1.48	540.76	2.94
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<p>4. T & D loss T& D loss to be brought down to 14.31% for 2012-13 by installing 1000 MVAR capacitors in substations, providing incentive to HT&EHT for improving Power factor and load factor, improving HT/LT ratio and replacing faulty meters</p>	<p>The level of T&D loss in KSEB is 16.09% during the year 2010-11. Further KSEB targets to reduce the loss to 15.56% during the year 2011-12 and 15.32% during the year 2012-13.</p> <p>Since KSEB has achieved a reasonable loss reduction targets already, KSEB has been taking earnest efforts to maintain the loss reduction already achieved by KSEB.</p> <p>The 14.31% loss reduction targets proposed by the objector is not realistic and even with huge additional investments, KSEB or any similar distribution utilities could not achieve such an ambitious target from the present level of 16% T&D loss.</p>
<p>5. Corridor Capacity. The objector requests the commission to verify the real corridor capacity. After commissioning 400KV line to Palaghat it is sufficient to meet the peak demand.</p>	<p>The objector may note that, after the commissioning of the 440 kV s/s at Palghat by PGCIL, import capability through the interstate feeders of KSEB is enhanced to 1500 MW including the share from CGS. However, the average drawal capability is only about 1300 MW. Due to transmission constraints in the Southern grid, KSEB could not import 1300MW through PGCIL lines. This is mainly due to the delay in commissioning of Kudamkulam Plant & NLC-II expansion. It is further submitted that, Nellore Vijayawada and Nellore-Almathi has been proposed for relieving the transmission constrains but these schemes are likely to be commissioned only by the year 2013-14. However if the Kudamkulam and NLC-II are commissioned the situation may slightly change.</p>
<p>6. Excluding domestic consumers consuming up to 300 units per month from restriction is against Act 2003 and National Tariff Policy. if power shortage is there, power cut may be considered. Power for short duration may be met by KSEB's own KDPP and BDPP. Or open Access procedure may be simplified to exercise that option. The objector request to reject Power restriction.</p>	<p>KSEB proposed to regulate the power consumption of domestic consumers as 300 unit per month at normal tariff.</p> <p>The necessity for introducing the power restriction is detailed in the ARR&ERC petition for the year 2012-13. The energy and capacity shortage anticipated for the year 2012-13 is 10.30% and upto 10.80% respectively. The regulations was proposed mainly to avoid (i) dependence on liquid fuel stations (ii) reduce the wasteful and luxurious consumption (iii) to supply electricity at affordable cost to the consumers. if no regulation is imposed on electricity usage, it may be difficult for KSEB to meet the anticipated energy demand.</p>
<p>7. Cross Subsidy</p>	<p>As per section 61(g) read along with section 181(2) (zc) of the Electricity Act-2003, Commission has to make necessary regulation on the issue of reduction in cross-subsidies. As per the para 8.3. (2) of the National Tariff Policy dated 6th January- 2006, SERC is expected to notify a road map to bring the tariff with in +_20% of the average cost of supply. However, Hon'ble Commission is yet to notify the road map on reduction of cross subsidies in the State of Kerala.</p>

<p>8. Employee Expenses KSEB has included Rs 2230 crore in the ARR for the year 2012-13 as Employee cost .It is high and is due to the high terminal benefit enjoyed by the employees. Requests commission to direct to Govt. to form a corpus fund for meeting the pension liabilities</p>	<p>Government is already decided to create a pension fund and separate pension liabilities from KSEB. However, it is yet to be finalised.</p>
<p>9. Gap KSEB is projecting huge gap</p>	<p>Board has estimated the expense components of ARR based on the past actuals, prudent utility practices and methodology adopted by the Hon'ble Commission for approving the ARR, Tariff orders and Truing Up orders during the past. The methodology adopted by KSEB for estimating each components of ARR are explained in detail in the ARR & ERC petition.</p>
<p>10. Load factor incentive to be introduced. Power factor incentive in Kerala is lower. The incentive charge should be extended to total electricity charges instead of limiting to energy charges only. The incentive for energy consumption during off peak hours as per TOD pricing scheme is in sufficient. For prompt payment incentive to be introduced.</p>	<p>Hon'ble commission may take appropriate decision. As directed by the Hon'ble Commission, KSEB had already introduced power factor incentives, rationalized TOD tariff for HT&EHT consumers. Further as proposed by KSEB, KSERC has approved ToD tariff for LT Industrial consumers with connected load above 30kW as an optional scheme from 1st April-2010. KSEB may offer further incentive, once the energy position of the state improves. The present regulations do not envisage to provide incentive to consumers for prompt payment. Incentive is allowed for advance payment.</p>
<p>42. Shaji Vargheese, Plant head, MRF Ltd., Vadavathoor PO. Kottayam</p>	
<p>1. 85% power restriction is not agreeable. The operating cost of MRF is higher in Kerala, the only advantage is the moderate energy cost in Kerala due to the share from Hydel Station. Due to energy conservation activities their energy consumption has considerably reduced during the last 5 years. This reduction in consumption would adversely affect while fixing quota as per restriction</p>	<p>The regulations on power supply was proposed mainly to avoid (i) dependence on liquid fuel stations (ii) reduce the wasteful and conspicuous consumption (iii) to supply electricity at affordable cost to the consumers. if no regulation is imposed on electricity usage, it may be difficult for KSEB to meet the anticipated energy demand. It may be noted that there was considerable increase in cost of power purchase since the year 2007-08. This has resulted in widening the revenue gap during the last few years. But the tariff has not revised in tune with the increase in cost of power purchase.</p>
<p>2. The objector requests Hon'ble Commission to direct KSEB to rationalise the tariff as per National Tariff Policy 2006. Any revision in power tariff should be reasonably spread across all consumers rather than burdening to industry alone</p>	<p>KSEB had filed the proposals for rationalization of tariff before the Commission on 30-03-2012</p>

43 &44. Travancore TitaniumProducts	
TTP is consuming 15 lakhs units per month and paying nearly 6 to 7 crores per annum. The energy cost /Ton of manufactured product has gone very high. Acute shortage of raw materials and increase in cost of raw materials will be a burden on income. TTP's existence will be in danger if energy cost is increased. Hence request to the Hon'ble commission to reject petition ARR & ERC 2012-13 filed by KSEB and to submit the ARR & ERC on the basis of of CAGR	Board has estimated the expense components of ARR based on the past actuals, prudent utility practices and methodology adopted by the Hon'ble Commission for approving the ARR, Tariff orders and Truing Up orders during the past. The methodology adopted by KSEB for estimating each components of ARR are explained in detail in the ARR & ERC petition.
46	Shri A Aiyappan Nair, General Secretary , Consumer Vigilance Centre
KSEB may be more transparent	All the details on the ARR &ERC petition including the details of the estimate of each expense component is given in the ARR&ERC petition filed by KSEB. If the respondent requires additional information on the subject, KSEB shall provide the same.
The gap is increasing year by year, no measures taken to reduce the gap.	The respondent may please note that, the cost of electricity in the long term. Medium term and short-term market has been continuously increasing. As indicated under Table 7-17 of the ARR, the cost of power purchase from Central Generating stations has been increased by about 60% during the last four years. Further, the yearly inflation is about 10% every year and it has resulted in to cost of materials and labour required for carrying out maintenance works etc. Further, the Electricity Act-2003 also mandates the recovery of the cost of electricity in a reasonable manner from its consumers. However, the electricity tariff in the State has not revised since October-2002
Why energy also generated from projects like Neyyar Dam etc.?	The adequate head is required for installing a hydel plants. KSEB may exploit the possibility of install a small hydel project at Neyyar dam.
Not take any steps to reduce T&D loss	The respondent may please note that, KSEB has so far reduced the T&D loss from 30.76% in 2001-02 to 16.09% in 2010-11, i.e, a reduction of 14.67% with in a short span of nine years. Further KSEB targets to reduce the loss by 15.56% during the year 2011-12 and 15.32% during the year 2012-13.Since KSEB has achieved a reasonable loss reduction targets already, KSEB has been taking earnest efforts to maintain the loss reduction already achieved by KSEB.
Large hike in employee cost Why?	The per unit cost of employees of KSEB (including pension) during the period from 2006-07 to 2011-12 is given below.

Year	Employee cost	Annual energy sale	Employee cost	(%) increase of employee cost over 2006-07
	(Rs.Cr)	(MU)	(Rs/unit)	(%)
2006-07	898.09	11331.00	0.79	
2007-08	904.87	12049.85	0.75	-5.26
2008-09	1255.19	12414.32	1.01	27.57
2009-10	1451.53	13971.09	1.04	31.08
2010-11	1712.80	14547.90	1.18	48.54
2011-12	1912.18	15782.49	1.21	52.86

It can be seen from the above that, the employee cost of KSEB has increased from Rs 0.79 per unit to Rs 1.21 per unit. It is further submitted that, during the same period, the rate of increase in the inflation was 67.45%. i.e., as per the rate of inflation, the employee cost for the year 2011-12 is likely to Rs 1.33 per unit as against the actuals of Rs 1.21 per unit. The details are given below.

Year	Inflation	Cumulative inflation	Employee cost admissible (based on inflation)	Reduction in employee cost (compared to the same admissible as per rate of inflation)
	(%)	(%)	(Rs/unit)	(Rs/unit)
2006-07	6.76		0.79	0.00
2007-08	6.21	13.39	0.90	0.15
2008-09	9.09	23.70	0.98	-0.03
2009-10	12.32	38.94	1.10	0.06
2010-11	10.53	53.57	1.22	0.04
2011-12	9.04	67.45	1.33	0.12

From the above, it can be seen that, the employee cost of KSEB is within reasonable limit compared to the inflation during the same period.

	Board has revised the revenue gap of Rs 2118.48 crores for 2011-12 as against the approved gap of Rs 887.81 crores. The objector requested before the Hon'ble Commission to review the claims for additional expenditure	The stakeholder may kindly note that, the increase is mainly on account of (i) increase in cost of power purchase and (ii) employee cost The respondent may be aware that, at present more than 65% of the total energy requirement of the State is being met by procuring power from outside the State and also by scheduling power from liquid fuel stations. As detailed under Table-7-17 of the ARR, the cost of power purchase from CGS has increased by 60% during the last few years.
	Based on 2 points power restriction is acceptable, 1. while arriving 85% of average consumption, consumers who have reduced their consumption over the last two/ three years through energy conservation measures should be exempted fully or partially based on their actual reduction. 2. domestic consumers using between 200 to 300 units per month shall also be part of the restriction but to a lesser tune.	KSEB may duly consider the suggestion.
	A moderate tariff hike is imposed so that future tariff shock of higher magnitude can be avoided.	KSEB agree with the suggestions of the respondent. KSEB has already filed tariff proposals before the Hon'ble Commission on 30-03-2012.
	The objector requested before the Hon'ble Commission to revise the hydel generation target so that the requirement from other sources can be reduced.	Anticipating a normal monsoon for the ensuing year 2012-13, the maximum energy availability from hydel would be about 6992 MU only. Further, KSEB has been taking all efforts to make the maximum capacity availability for meeting the peak requirement.
	KSEB shall be directed to explore the possibility of reducing the grid pressure through decentralized solar systems.	KSEB may duly consider the suggestion
48	Shri Manohardas,	
	The objector requested before the Hon'ble Commission to reject the proposal of KSEB to impose power restriction in 2012-13.	The regulations on power supply was proposed mainly to avoid (i) dependence on liquid fuel stations (ii) reduce the wasteful and conspicuous consumption (iii) to supply electricity at affordable cost to the consumers. if no regulation is imposed on electricity usage, it may be difficult for KSEB to meet the anticipated energy demand.
	All the planned projects had been completed in time, there is no need of 15 % restriction in the state.	The objector may please see the ground realities and difficulties faced by KSEB for the implementation of the Capital Investments in State like Kerala. However, KSEB has been taking earnest efforts for the execution of capital projects.

	ARR&ERC petitions have been filed without complying regulations and directives of the Hon'ble commission.	KSEB has been filing the ARR &ERC as per the KSERC Tariff regulation- 2003 notified under notification No. 1/3/KERC-2003/II dated 3 rd January-2004. As a single utility doing Generation, Transmission and Distribution business, Hon'ble Commission has not insisted KSEB to adopt KSERC (Terms and Conditions of Tariff for Retail sale of Electricity) Regulations, 2006, which is specifically applicable to distribution utilities of the State. Further, since KSEB is under transitional stage, the future organisational set up of the Board is yet to be decided.
	Consider the energy availability of Koodamkulam	Though the works of the Koodamkulam power station has resumed during March-2012, the authorities has yet to declare its schedule of commissioning. Usually nuclear stations require two to three months from the date of synchronization for commercial operation. Even today (25 th of March-2012) the date of synchronization has not been announced. Further, the Koodamkulam Power station is originally scheduled for commissioning in two stages within a time interval of about nine months. Hence, even if the plant starts commercial operation during the year 2012-13, there is very remote chance to start the commercial operation of the second unit during the FY 2012-13. KSEB shall appraise the date of synchronization and schedule of commissioning of the 1 st and 2 nd unit as soon as the information is available to the Board. After appraising the power situation, Hon'ble Commission can take an appropriate decision on the power regulation
	The currently approved power factor incentive scheme to be revised	Hon'ble Commission may take an appropriate decision.
49	Shri P M Srikrishnan, Exe Director, Kanan Devan Hills Plantations Company PVT LTD, Munnar	
	For industrial consumers like plantations the level of power consumption in every month is fluctuating based on weather conditions. There would be months of high and low consumption. Hence if a fixed ceiling is adopted for all the months then for any month where the consumption is lower than the ceiling, the difference should be allowed to be carried forward and added to the ceiling of the subsequent months.	It may be difficult to fix the quota for each month. Hence, KSEB may propose to regulate the power supply at normal tariff as 85% of the previous one year consumption. Since the quota is fixed as the average of the previous 12 months consumption, the seasonal variation is automatically reflected in the quota fixed.

ANNEXURE III (A)

LIST OF PERSONS ATTENDED THE PUBLIC HEARING HELD AT ERNAKULAM ON 06.03.2012

1. Sri. Shaji Sebastian, KSSIA
2. Sri. George Thomas, KHT & EHT Association
3. Sri. George Oommen, Appolo Tyres
4. Sri. A.R.Satheesh, Carborandum Universal
5. Sri. Ajith.R, SE-TCC Ltd
6. Sri. Ramesh .S, SE – TCC Ltd
7. Sri. K.V.Pushkaran, Employees Association, TCC
8. Sri. Latheef, TCC
9. Sri.Madhusudhanan, HINDALCO
10. Sri. Jayathilakan, KSPC
11. Sri. K.N.Gopinathan, Standing Counsel
12. Sri. Gopakumar, ApolloTyres
13. Sri. M.Sambasivan, Hindalco
14. Sri.Sri. N.R. Rageshkumar, BinaniZinc Employees Union
15. Sri. P.S. Gangadharan, Standing Counsel of T.U
16. Sri. P.P.Joy, Binani Zinc Employees Association
17. Sri. Anil Chandra, Binani Zinc Employees Association
18. Sri. Thomas Chacko, GM BPCL
19. Sri. Suresh Kumar, OA, KSEB
20. Sri. Biju T Nair, Indus Towers Ltd
21. Sri. Jayakumar, Apollo Tyres
22. Sri. Sri. Harish Chandran, Apollo Workers Assn
23. Sri. Manoharanm Apollo Workers Assn
24. Sri. M.K.Salim, Apollo Employees Union
25. Sri. Sunil Kumar, KSEB Employees Assn
26. Sri. P.C. Sekrarai, GTN Textiles
27. Sri. P.P.Devasy, CITU
28. Sri. K.J.Domnic, GTN Textile
29. Sri.E.G.Jayaprakash, GTN Textile
30. Sri. K.M.Amanulla, Standing Counsel of T.U
31. Sri. M.A.Shaji, Binani Zinc
32. Sri. Unnikrishnan.K.V, Binani Zinc
33. Sri.. Thilakan, Binani Zinc
34. Sri. A. Ahammed Koya, The Western Indian plywood

35. Sri. K.K.Jayan, Binani Zinc
36. Sri. V.M. Santhosh, Binani Zinc
37. Sri. Denu Thomas, Binani Zinc Ltd
38. Sri. Jijo Joseph, Binani Zinc
39. Sri. B.P. Stephen, Binani Zinc
40. Sri. A.J.Lalu, Binani Zinc
41. Sri.,Radhakrishnan, Carborandum Universal
42. Sri. Ramdas .M, Carborandum Universal
43. Sri. P.T.Manukuttan, Carborandum Universal
44. Sri. John, Binani Zinc
45. Sri. P.Suresh, HNL-CITU
46. Sri. P.V.Paulose, HNL-EEL
47. Sri. K.K.Ali, HINDAL Co
48. Sri. A.U.Amithab,
49. Sri.C.K.Mathew, HNL-INTUC
50. Ms.. Moly faizy,
51. Sri. Anil Kumar, HNL Officers Assn
52. Sri. N.S.Vinodkumar, Carborandum Universal
53. Sri. Murali.C.K, Carborandum Universal
54. Sri. Santhosh kumar
55. Sri. Muhammed Shameez
56. Sri. Saji Mathew, EO, CII
57. Sri. P.T.Mehantha, KDHP
58. Sri. R.Jayaraman, KDHP
59. Sri. B.Manoj, HIL
60. Sri. P.K.Andavan, INTUC
61. Sri.V.Mohanan, BMS
62. Sri. Sebastian Mathew, HIL
63. Sri.V.J.Sebastian, Binani Zinc
64. Sri. Hashim.M.A, Binani Zinc
65. Sri. K.B.Muraleedharan,
66. Sri. Lalkumar.K.R, Binani Zinc
67. Sri. N.S. Anilkumar, Binani Zinc
68. Sri. Shajan Joseph, Binani Zinc
69. Sri. C.A.Subair, Binani Zinc
70. Sri. Davis Samuel, GTN
71. Sri. P. Surendran, HCL
72. Sri. V.,.R. Murali, TCL Thozhilali Union
73. Sri. K.P.Danial, TCC Thozhilali Union

74. Sri. Venugopal, Member, KSEB
75. Ms. R. Gayathri Nair, CE, KSEB
76. Sri.P.V. Sivaprasad, Exe.Engg, TRAC
77. Sri. Jacob Kurian, Palakkad
78. Sri. Venugopalan.P., Palakkad
79. Sri. T.K.Vidyasagaran, CITU
80. Sri.. K.V.Vinodkumar, HCL
81. Sri. R. Shaji, HCL
82. Sri. K.M. Ashraf, GTN Textile
83. Sri. Joseph Kurian, Kinesco
84. Sri. C.R.Kumar, Kinesco
85. Sri. Pavithrarajan, General Secretary, INTUC
86. Sri. M.N.Divakaran, Vice President, INTUC
87. Sri. Chandy Abraham,, Cochin Minerals
88. Sri. Vinu Venugoopal, CMRL, Aluva
89. Sri. P.Manoharan, Indus Towers
90. Sri. Biju T Nair, Indus Tower
91. Sri. M.Tripatha, Indus Towers
92. Sri. Joseph, Indus Towers
93. Sri. Shajan.V.A, FACT
94. Sri. Chandra.T.V., CSEZ
95. Sri. Haridas K Varma, CEPI Indus Assn
96. Sri. K.V.Pushkaran, TCC Ltd
97. Sri. M.K.Abdullathif, TCC Ltd
98. Sri. Kunjan.K.K, TCC
99. Sri. C.Sasikumar, BMS President
- 100.Sri. Williams, INTUC
- 101.Sri. Narayanan.R,CITU
- 102.Ms. Jayasree.K.K, Cochin Shipyard
103. Sri. Sibil John, Dy Manager, Cochin Shipyard
104. Sri. Satheesh.G, KSEB Engineers Assn
105. Sri. MPM Sali, Public Sector Employees
106. Sri.Saju Vargheese, FACT, INTUC
107. Sri.P.Devaraj, FACT Wrokers Union
108. Sri. M.M. Jabar, FEA
- 109, Sri.P.M.Ali, FWO
- 110.Sri.M.K.Rajendran, TCCSWA
111. Sri.R.Sanjeev, TCCSWA

ANNEXURE III (B)

LIST OF PERSONS ATTENDED THE PUBLIC HEARING

HELD AT THE COMMISSION'S OFFICE ON 08.03.2012

- 1) Shri. Sanju. V.P.Thomas, Binani Zinc Ltd
- 2) Ms.Nanzy, Binani Zinc
- 3) Shri. B.V.Chandrasekharan, Southern Railway
- 4) Shri. K.Roshan, Binani Zinc Ltd
- 5) Shri. Santhosh, CUMI Ltd
- 6) Shri. Shajahan, H.N.L
- 7) Shri. John Mathews, H.N.L
- 8) Shri. Shaji Sebastian, KSSIA
- 9) Shri. Pradeep Kumar, MRF Ltd
- 10) Shri. Johny George, MRF Ltd
- 11) Shri. K.Prakasan, Trade Union, MRF Ltd
- 12) Shri. N.T.Job, KSEBEA
- 13) Shri. E. Mohammad Shariff, KSEBEA
- 14) Shri. S. Vijayakumar, Civil Engineer, Southern Railway
- 15) Shri. R.S. Shenai, SE/S.Rly
- 16) Shri. S.Karthikeyan, SE, S.Rly
- 17) Sri.V.C.Uthamkumar, SE/S.Rly
- 18) Sri. Jijo Kuriakose, Binani Zinc
- 19) Sri. K.V.Rajendran, GM, Technopark
- 20) J.Simon, AE
- 21) Shri. Einstein.F.V, EE, Technopark
- 22) Sri. Ansuji.N.S, Project Engg, Technopark
- 23) Ms. Gayathri Nair, Chief Engg, KSEB
- 24) Ms. B.Sreedevi, Dy.CE, KSEB
- 25) Sri.P.V.Sivaprasad, EE, KSEB
- 26) Sri.Kurian Sebastian, KSEB Officers Association
- 27) Ms. Gisy Elzy John, AE, TRAC
- 28) Ms.Ambili.S.P, AEE, TRAC
- 29) Ms. Latha.S.V, AEE, TRAC
- 30) Sri.Girish Kumar.V.S, FO, TRAC, KSEB
- 31) Sri. Edward.P.B, AE, TRAC
- 32) Sri. Najeem, AE, Airport

- 33) Sri. Prakashan, MRF Employees Union
- 34) Sri. William, AE
- 35) Sri. Venugopal.S, Member, KSEB
- 36) Sri. T.M.Manoharan, Chairman, KSEB
- 37) Sri. B.Pradeep, KSEB Officers Association
- 38) Ms. B.Nina, Dy.CE, KSEB
- 39) Sri. Firoz, Asst. Executive Engg, Travancore Titanium
- 40) Sri. Manoj.B, KSEB Officers Association
- 41) Sri.V.Sukumaran, C.V.C Exe Committee Member
- 42) Sri.Clinus, TTP Ltd

ANNEXURE - IV

KERALA STATE ELECTRICITY REGULATORY COMMISSION

MINUTES OF THE 24th STATE ADVISORY COMMITTEE MEETING

**SFS Home bridge, CV Raman Pillai Road, Vellayambalam,
Thiruvananthapuram.**

10.30 AM; 15.02.2012

Members /Representatives Present

Shri./Smt.

- 1 . K.J. Mathew, Chairman, KSERC.
- 2 . P. Parameswaran, Member, KSERC.
- 3 . Mathew George, Member, KSERC.
- 4 . T. M.Manoharan, Chairman, Kerala State Electricity Board.
- 5 . Mammen. J, AGM (Commercial) , NTPC.
- 6 . Vijayamohanan Pillai , Associate Professor ,Centre for Development Studies,
Thiruvananthapuram
- 7 . Prof .(Dr) K. Ravi, Kesaveeam, House No. 76, Vrindavan
Garden, Pattom, Thiruvananthapuram
- 8 Ayyappan Nair A , Confederation of Consumer Vigilance Centre, Sreekovil,
kodunganoor, Thiruvananthapuram.
- 9 Vennikulam George Vargheese, President FRATS (Federation of
Residents'Association,
Trivandrum)
- 10 . E.M. Najeeb, President , Thiruvananthapuram Chamber of Commerce.
- 11 S.N. Raghuchandran Nair, Managing Director, SI Property (Kerala) Pvt
Ltd,'Silver Oaks'
Thiruvananthapuram.
- 12 . George Thomas, President, The High Tension & Extra High Tension Industrial
Electricity Consumers'Association, Productivity House , Kalamassery.
- 13 K.M.Dhaharan Unnithan, Director, Energy Management Centre,
Thiruvananthapuram.
- 14 Jayathilakan , Kerala State Productivity Council, HMT Road, Kalamassery.
- 15 . G.Balachandran Nair, Additional Secretary, Power Department , Govt. of Kerala

Other Officials present

- 1 K.Chandrasekhara Babu, Secretary, KSERC.
- 2 B.Jayasankar, SEA, KSERC.
- 3 Johnson Jacob, Compliance Examiner, KSERC.
- 4 C.K.Jayachandran,Consultant (Tariff) KSERC.

- 5 J.Sasidharan Pillai, Consultant (RA)KSERC
- 6 George James, Consultant (Legal) KSERC.
- 7 P.Siavudin, Consultant (PR), KSERC.
- 8 C.Subramanyan, Administrative Officer, KSERC.

The meeting started at 10.30 AM. The Chairman welcomed the members of the State Advisory Committee (SAC) to the 24th meeting of the Committee, the first meeting of the reconstituted Committee. After the introductory remarks, first item of the agenda, approval of the minutes of the previous meeting, was taken up. The Chairman sought comments on the minutes. Shri. Jayathilakan pointed out that one year has passed since the last meeting of the State Advisory Committee and proposed more frequent meetings of SAC. The members unanimously approved the minutes of the previous meeting.

Subsequently, the Chairman briefly mentioned the activities/actions undertaken by the Commission since the previous meeting which was the second item of agenda of the meeting. He referred to the appointment of Consultants for developing Regulations and for fixing norms for determination of tariff as per Sn. 62 of the Electricity Act 2003. Similarly consultancy assignment has been arranged for a study of the reasonable rate base for allowing returns and segregating joint costs of small licensees. The Commission rendered advice to the Govt. on re-vesting of assets and liabilities of KSEB. He also referred to the revision of existing Supply Code. Its first draft having already been made available to the stake holders for comments, it will be discussed in SAC before finalisation. He stated the importance given by the Commission for consumer awareness. Two awareness programmes on familiarisation of regulatory process and procedures among small consumers had been arranged – one at Nattika in Thrissur and the other at Peringanmala, Thiruvananthapuram. He announced the Commission's intention to bring out a News Letter for consumer empowerment. The Commission has given strict direction to all licensees to file ARR & ERC petition within the time limit stipulated. Truing up of accounts of various licensees is almost completed. He also referred to the Orders of the Hon' Appellate Tribunal to take suo motu action to revise tariff. Every ARR & ERC Petition with revenue gap should be accompanied by a Tariff petition to bridge the gap and the tariff orders should be for one FY. He referred to the 11th Meeting of Southern Electricity Regulators Forum (SERF) at Kollam on 12.11.2011 hosted by KSERC. The meeting discussed various issues relating to the southern sector. The Chairman emphasised the importance of prescribing standards of performance of licensees and the need for proper service to consumers.

The member (Finance) KSERC stated that the most important agenda item of the meeting is the discussion of the ARR&ERC petition filed by KSEB and on the power restriction proposed by the Board. Then the Chairman informed that the ARR & ERC petition filed by the Board has been published in the web site of the Commission. The petition shows a revenue gap of about Rs.3200 cores and tariff

revision may be inevitable . He then invited the Chairman, KSEBoard, to present the ARR&ERC for the FY 2012-13.

The Chairman , KSEB introduced the ARR &ERC petition of the Board for the FY 2012-13. He explained with data the need for power restriction. He stated that chances for implementing major generation projects are rare and only additions and modifications to the existing stations can be done. Even the coal based Chimney project is too difficult to be implemented due to local resistance. Conversion of Liquid fuel station to gas based station also involves problems. Purchase of energy from outside the state is the only alternative. But this also has certain hurdles. At present Transmission corridor affects evacuation of CGS allocation. The Chairman of the Board also stated that price of all factors of energy production is increasing. The only available solution is differential tariff so that the financially sound consumers should pay more. He concluded by stating that other issues can be addressed in his reply to the observations raised by other members during the course of the discussion.

Then the Chairman , KSERC, invited the members to express their views on the ARR & ERC petition filed by the Board.

Shri. S.N. Raghuchandran Nair, Managing Director, SI Property (Kerala) Pvt Ltd, observed that the employee cost of the Board witnessed 45 % increase while purchase of power increased by 44 %.He also opined that depreciation can be reduced by deducting consumers' contribution from the GFA. CERC norms may also be upheld for calculating depreciation.

Shri. E.M. Najeeb, President, Thiruvananthapuram Chamber of Commerce, commented, with the support of data, on the huge increase in the operation and maintenance cost, especially employee cost. In a cost plus regime SERC has to initiate action to control cost. The Board has not produced any proposal for tariff revision to bridge the revenue gap. He then opined that tariff increase should be uniform to all consumers. Regarding the difference in the tariff of a consumer, it should not be more than +/- 20 % of that of any other consumer . He also demanded reduction in the tariff level of subsidising consumers.

Shri. George Thomas , President, The High Tension & Extra High Tension Industrial Electricity Consumers' Association pointed out the increase in the Power purchase cost and employee cost. The proposed employee cost comes to Rs. 1.36/unit and the Commission should exercise its powers to reduce this cost. He also remarked that as KSEB has no equity, ROE should not be allowed. On Tariff revision he commented that KSEB has not filed Tariff petition so far. He opined that Tariff can be revised in line with the National Tariff Policy and tariff should be rationalised. His opinion on marginal costing is that domestic consumers need not be spared when such restriction is imposed. He further explained that there is no justification for power restriction and it is not a solution.

Shri . Jayathilakan, former president, Kerala State Productivity Council , in his remark brought to the attention of the Commission that in the pre – regulatory regime, tariff revision meant only increase the tariff of HT & EHT and commercial consumers . It thus increased cross - subsidy . Such tariff revision affected revenue of the State. Domestic consumers were protected. There are many rich domestic consumers who can pay more. He insisted on the need for integrated pricing policy and energy auditing. The Board has not taken any serious action for increasing transmission capacity. He opposed the idea of power restriction.

Shri . Vennikulam George Vargheese, President, FRATS, demanded waiving of Fuel Surcharge and realisation of arrears .

Pro.(Dr.) K. Ravi opined that high employee cost in Kerala is a general situation and is not peculiar to KSEB alone. Unemployed people will object to any post reduction in KSEB . Powerful environmental groups are objecting to every developmental attempt of the Board. He suggested that cost and productivity analysis can be undertaken in KSEB. 5 to 10 % of the domestic consumers are capable to pay more. There is good opportunity for the development of Renewable Energy Sources (RES) .An intergrated policy of RES is necessary. Similary a price policy on RES should be formulated.

Shri Mammen .J., AGM, NTPC, explained that cost of production is increasing. Price of Crude oil is going up after economic depression. Coal India is revising its price mechanism so that price of coal is also increasing. There are transmission corridor constraints for transmitting power available in the market. Introduction of prepaid meter system will help to reduce consumption. Setting up of TOD meters in domestic sector will also will help to reduce consumption. Introduction of IT enabled system will help to solve many of the issues faced by the Board.

Shri. K.M. Dharesan Unnithan, Director, EMC, opined that energy consumption can be reduced to a great extent by creating awareness among students. His opinion is based on study conducted among students. Installation of pre-paid meters and DSM also will help to reduce consumption. Wide use of solar energy is another suitable alternative.

The Chairman, K.S.E.B, in his reply to the views of the members , expressed his satisfaction that the members carefully examined the Board's proposal. He then remarked that the Board's past , present and future cannot be separated. Rate of Tariff in the State of Kerala is still the lowest. Industries enjoyed many privileges in the past. There was no tariff increase for the last eight years. It is true that the Board has failed in filing tariff petition. But, the benefit of the failure was enjoyed by all consumers. The Board's AT & C loss reduction is one among the best in the country. He explained various projects that are being implemented and are in the pipeline in the transmission region. Construction of Power Highway from Thiruvananthapuram

to Mylatti , Mysore - Calicut line, Trichur – Pallikara,Edamon – Pallikara are some among them. He requested the members to come forward to improve the system by raising public opinion in favour of the Board. Employee cost is a serious concern for the Board also. But the scope for reducing the cost is very limited for obvious reasons. The Board's consumer base is about one core and three lakh. The assets of the Board have increased. So there should be some increase in employee strength which is at present about 30000.He then explained some measures taken by the Board to regulate the staff strength. Use of PDA in meter reading is going to be introduced. IT enabled changes in Meter Reading, Billing, payment etc. are some of the schemes for regulating staff strength. Pay revision has been introduced with the approval of the Govt. Regarding power purchase cost, the Chairman explained that fixed cost and variable cost of most of the Central Generating companies are going up. Severe shortage of coal causes increase in coal price. In short, cost of every ingredient of power generation is increasing. On the proposal of power restriction the Chairman opined that it is not a good solution , but in all other states, there is power restriction. Regarding increase in R & M cost, the Chairman said that Distribution assets , transmission lines , substations etc have increased. Escalation of labour cost, shortage of man power in transmission sector etc are major reasons. On the issue of pension liability , the Chairman informed the members that the strength of pensioners have increased to Thirty Nine thousand and the pension cost is around Rs. 900 cores. On energy export and swapping , he said that energy sales is not much. He also said that increase in cogeneration can be allowed and captive consumption encouraged. On realisation of arrears due to the Board, the Chairman explained that major portion of arrears are those that relate to pre- 92 tariff, pending on account of court cases and those relating to Govt. Depts. The Board's collection efficiency is 99 % excluding that from Govt. agencies.

The Chairman, KSERC, concluded the discussion on ARR & ERC for 2012-13 of kSEB by stating that the Commission is insisting on the use of energy from RES. The Commission has stipulated that every licensee should purchase 3 % of its requirement from RES with annual increase of 10 %.RE certificate is to be purchased by the Licensee who can not procure the required energy from RES .The rate of energy from RES is very high, but distribution licensees need not bear any loss since Govt. provides subsidy. Other states like Rajasthan, Gujarat etc. are making more investment in RES.

Then he moved to Agenda item No.4 – The issue of providing Electricity Connection to Multi- storied Residential Apartments and Commercial buildings. Introducing the agenda, Shri. S.N. Raghuchandran Nair, Managing Director , SI property, stated that kSEB is not adhering to the directions of the Commission issued in letter No. 867/ CT/T& C of supply/KSERC/682 dt. 08.07.2010, that if a commercial consumer does not use common facilities in Multi-storeyed buildings , and if the common facilities are used exclusively by domestic consumers, only domestic tariff shall be applicable for common facilities. KSEB has been collecting huge amount

from the builders for providing RMU for Multi- storied Residential Apartments and commercial buildings. KSEB insists that cables should be provided by the builders. Common facilities are charged at higher rate. The Chairman, KSERC instructed that KSEB should publish the cost of connection. If connection is denied the reason should be intimated to the consumer. If the consumer has any grievance he can approach the CGRF. The Member (Finance) KSERC remarked that the issue of cables can be dealt with in the revision of Supply code. On the enquiry of the Member (Eng.) Shri Raguchandran Nair informed that RMU is provided in the premises of the consumer. The Chairman, KSEB explained that common facilities include not only lifts but also other things. He assured that the issue of charges can be examined. RMU will be fixed at the choice of the builder. Issue of cables can be dealt with in the Supply Code and fee will be published. Then Shri. Raghuchandran Nair requested that facilities given to domestic consumers may be given to Commercial Consumers also. The Member (Eng.), KSERC remarked that he can discuss the matter with KSEB and KSERC separately.

The Chairman , KSERC, invited Shri. Dharesan Unnithan Director EMC to introduce the next agenda Item – the Role of EMC in DSM programme/Energy Conservation Programme. He requested to include EMC in the formulation , execution and verification of DSM programmes of all the licensees in the state. One paisa per unit is to be set apart for the programmes and the fund should be borne by the Board. Dr. K. Ravi opined that other agencies like ANERT should be allowed to participate in such programmes and the fund should be entrusted to a consortium. The Director, EMC, informed that Government Order was issued constituting a committee for keeping the fund . Only Nine industries are submitting data for energy audit. The fund can be utilised for energy audit and energy efficiency programme.

Shri Ayyappan Nair , President , Confederation of Consumers Vigilance Centre informed that his proposals would be submitted within one week. He pointed out that employee cost, as per the ARR &ERC of the Board , increases from the approved level. Increase in the tariff of domestic consumers cannot be accepted. He stated that a certain increase can be admitted but all the increase cannot be loaded to one sector. Dr. K. Ravi said that rich domestic consumers can be taxed. Member (Eng.), KSERC ,enquired whether any limit can be suggested for the separation of rich and poor consumers. Dr. Ravi replied that domestic consumers whose consumption is more than 300 units of energy can be considered as rich. The Chairman KSEB informed that there are only about 90000 such consumers. Then Dr.Ravi corrected that what he intended was consumers whose bimonthly consumption exceeds 300 units can be considered as rich consumers. The President HT –EHT Association remarked that there is misplaced sympathy towards domestic consumers . What is needed is rationalisation of tariff. The Chairman , KSERC concluded the topic with the remark that people can attend the hearing on the ARR & ERC petition of the KSEBoard with more reasons. He then requested Sri Mammen .J. of NTPC, Kayamkulam, to introduce agenda item No. 6.

Introducing the Agenda item no. 6 Shri Mammen said that regular generation scheduling should be given to RGCCPP plant which has been under reserve shut down with effect from 16.11.2011. The Chairman KSEB said that such restrictions are imposed for the financial viability of the Board and the Board should survive for the public. Sri. S. N. Raghuchandran Nair , informed that theft of energy directly from the distribution feeders still exists in the state. Member (Eng.) informed that such theft is practically nil. Temporary connections are given for festivals etc. and consumers are allowed to use generators.

The Chairman , KSERC concluded the meeting by declaring that Commission desires that every licensee in the sector should function with financial viability. Regarding Rate of Return of the Board, direction was issued to conduct a study on the issue by the Board , but the Board has not done it so far. The Commission is against wastage of electricity. It is not against use of electricity. Kerala is back in the use of electricity. Consumption of electricity and growth in GDP are inter related .The Commission is of the opinion that the revenue gap of the Board should be filled. Rationalisation of tariff should be gradual. The Board has not implemented all the directions in peak load management. The Commission is trying to address the concerns of everybody. He assured the members that the views and observations expressed by them in the meeting will be considered seriously while approving the ARR & ERC petition of the Board for the FY 2012-13.

The meeting was concluded at 1.10 PM.

Sd/-

Chairman, KSERC

Annexure - V

Monthly Energy schedule for the purpose of estimation of Fuel Surcharge

Source	April	May	June	July	August	September	October	November	December	January	February	March	Total
BDPP	6.6%	12.7%	6.1%	6.4%	6.4%	6.1%	6.4%	6.1%	6.4%	12.7%	11.5%	12.7%	100.0%
KDPP	4.2%	12.7%	6.3%	6.5%	6.5%	6.3%	6.5%	6.3%	6.5%	13.1%	11.8%	13.1%	100.0%
RGCCPP	1.3%	7.8%	4.2%	9.4%	4.0%	1.5%	11.4%	15.5%	16.5%	11.2%	5.6%	11.7%	100.0%
BSES													
KPCL	8.2%	8.5%	8.2%	8.5%	8.5%	8.2%	8.5%	8.2%	8.5%	8.5%	7.7%	8.5%	100.0%
RSTPS	8.8%	9.0%	8.2%	8.5%	7.4%	8.3%	7.4%	8.9%	8.1%	8.0%	8.1%	9.4%	100.0%
Talcher Stage-II	9.2%	8.9%	7.6%	7.1%	6.8%	8.8%	9.1%	9.5%	8.9%	8.3%	6.2%	9.6%	100.0%
NLC-Stage-1	9.5%	9.6%	8.9%	7.2%	6.6%	8.3%	8.5%	7.0%	5.1%	9.2%	9.0%	11.3%	100.0%
NLC-Stage-II	9.3%	7.9%	9.2%	9.4%	8.5%	6.6%	7.6%	4.9%	7.0%	9.9%	8.9%	10.8%	100.0%
NLC Expansion	4.8%	8.9%	9.5%	8.5%	7.8%	9.7%	9.0%	6.0%	8.3%	8.2%	9.1%	10.3%	100.0%
MAPS	6.7%	7.6%	7.9%	8.7%	8.4%	8.8%	9.0%	6.5%	4.5%	9.8%	9.6%	12.6%	100.0%
KAIGA	7.2%	4.5%	4.2%	5.6%	8.1%	8.0%	7.9%	8.3%	9.1%	10.7%	11.1%	15.4%	100.0%
Simhadri	8.8%	9.0%	8.2%	8.5%	7.4%	8.3%	7.4%	8.9%	8.1%	8.0%	8.1%	9.4%	100.0%
Farakka	9.2%	8.9%	7.6%	7.1%	6.8%	8.8%	9.1%	9.5%	8.9%	8.3%	6.2%	9.6%	100.0%
Kahalgon	9.2%	8.9%	7.6%	7.1%	6.8%	8.8%	9.1%	9.5%	8.9%	8.3%	6.2%	9.6%	100.0%
Talcher -I	9.2%	8.9%	7.6%	7.1%	6.8%	8.8%	9.1%	9.5%	8.9%	8.3%	6.2%	9.6%	100.0%
NLC-II Exp	4.8%	8.9%	9.5%	8.5%	7.8%	9.7%	9.0%	6.0%	8.3%	8.2%	9.1%	10.3%	100.0%
Vallur JV	8.8%	9.0%	8.2%	8.5%	7.4%	8.3%	7.4%	8.9%	8.1%	8.0%	8.1%	9.4%	100.0%