KERALA STATE ELECTRICTY REGULATORY COMMISSION

Tariff order 2007-2008

PETITION NO. TP 23 OF 2006 AND TP 30 OF 2007

Filed by

KERALA STATE ELECTRICTY BOARD

In the matter of

Aggregate Revenue Requirement & Expected Revenue from Charges for 2007- 08 and Retail & Bulk Supply Tariff

26th November, 2007

KERALA STATE ELECTRICITY REGULATORY COMMISSION

Thiruvananthapuram

Petition No. TP 23 of 2006 and TP 30 of 2007
November 26, 2007

Present	:	Shri. C. Balakrishnan, Chairman Shri. C. Abdulla, Member Shri. M.P. Aiyappan, Member
Kerala State Electricity Board	:	Petitioner

ORDER

The Kerala State Electricity Regulatory Commission having scrutinized the petitions filed by Kerala State Electricity Board on ARR and ERC for 2007-08 vide letter No.KSEB/TRAC/TF05/P dated 11th December 2006, and Tariff Petition vide letter No. KSEB/TRAC/Tariff-Rev-07-08/P/271 dated 4th July, 2007, consulted the State Advisory Committee on 20th December 2006 and 11th June 2007, considered the written objections filed by the stakeholders and the subsequent written and oral submissions of Kerala State Electricity Board, heard the views of stakeholders/objectors on 2nd, 4th, 8th and 18th of January 2007 on ARR & ERC and on 16th, 17th and 18th October, 2007 on Tariff Petition, 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/-	**Sd/-**	**Sd/-**
M.P. Aiyappan	**C. Abdulla**	**C. Balakrishnan**
Member	Member	Chairman

Authenticated copy for issue

Sd/-
Secretary

CONTENTS

LIST OF ABBREVIATIONS

A&G	Administration and General
ABT	Availability Based Tariff
APDRP	Accelerated Power Development and Reform Programme
ARR	Aggregate Revenue Requirement
AT&C	Aggregate Technical & Commercial
BDPP	Brahmapuram Diesel Power Plant
BOARD	Kerala State Electricity Board
CAGR	Compounded Annual Growth Rate
CCGT	Combined Cycle Gas Turbine
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Station
CTU	Central Transmission Utility
CWIP	Capital Works in Progress
DCB	Demand Collection Balanace
DPR	Detailed Project Report
EHT	Extra High Tension
EMC	Energy Management Centre
EPS	Electric Power Survey
ERC	Expected Revenue from Charges
ESAAR	Electricity Supply Annual Accounting Rules
FY	Financial Year
GIS	Geographic Information System
HT	High Tension
HEP	Hydro Electric project
IPP	Independent Power Project
KDPP	Kozhikode Disel Power Plant
KED Act	Kerala Electricty Duty Act
KPCL	Kasaragode Power Corporation Limited
KSEB	Kerala State Electricty Board
KSERC	KeralaState Electricty Regulatory Commission
KV	Kilo Volt
LDC	Load Despatch Centre

LF	Load Factor
LT	Low Tension
LSHS	Low Sulphur Heavy Stock
LNG	Liquefied Natural Gas
MAPS	Madras Atomic Power Station
MU	Million Units
MVA	Mega Volt Ampere
MW	Mega Watt
MYT	Multi Year Tariff
NFA	Net Fixed Asset
NLC	Neyveli Lignite Corporation
NPG	Non Paying Group
NT PC	National Thermal Power Corporation
NVVN	NTPC Vidyth Vyapar Nigam Ltd.
OYEC	Own Your Electric Connection
PF	Power Factor
PLF	Plant Load Factor
POWERGRID	Power Grid Corporation of India Limited
PPA	Power Purchase Agreement
PTC	Power Trading Corporation
RGCCPP	Rajiv Gandhi Combined Cycle Power Project
RGGVY	Rajiv Gandhi Grameen Vidyutheekaran Yojana
R&M	Repair and Maintenance
RMU	Ring Main Unit
RoE	Return on Equity
RoR	Rate of Return
SAC	State Advisory Committee
SHP	Small Hydroelectric Project
SLDC	State Load Despatch Centre
SLR	Statutory Liquidity Ratio
T&D	Transmission & Distribution
TOD	Time of the Day
TOU	Time of Use
TRAC	Tariff and Regulatory Affairs Cell of KSEB
UI	Unscheduled Interchange

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Chapter I

INTRODUCTION

1.1 Preamble

The Kerala State Electricity Board (hereinafter called as KSEB or the Board) has filed the Aggregate Revenue Requirement (ARR) and Expected Revenue from Charges (ERC) for FY 2007-08 before the Commission on December 11, 2006. The Board has stated that the Government of India and Government of Kerala have mutually agreed upon to continue the Board as State Transmission Utility (STU) and a distribution licensee till June 9, 2007 under Proviso to Section 172(a) of the Electricity Act, 2003.

The Commission after its inception, has issued four Orders on ARR & ERC of the Board for the financial years 2003-04, 2004-05, 2005-06 and 2006-07. The ARR & ERC for FY 2003-04 was submitted on August 1, 2003 and the Commission issued the Order on December 31, 2003 approving the ARR of Rs.3697.37 Crore and total revenue of Rs.3141.37 Crore, leaving a gap of Rs.556.46 Crore. The Commission recommended that the gap might be bridged by way of exemption from payment of duty (Rs.182.56 Crore) to the Government and release of subsidy provided in the Budget of the Government of Kerala in cash (Rs.175 Crore), and granting of additional subsidy (Rs.200 Crore) by the Government.

The ARR &ERC for 2004-05 of the Board was submitted on 15th December 2003 showing a revenue gap of Rs.854.19 Crore. The Commission in its order dated April 16, 2004 approved an ARR of Rs.3492.46 Crore and total revenue of Rs.3196 Crore, leaving a gap of Rs.296.46 Crore for 2004-05. The Commission recommended to the Government of Kerala to exempt the Board 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 provide the balance amount of Rs.96 Crore by way of revenue subsidy to the Board.

The Board submitted the ARR & ERC for the year 2005-06 on November 15, 2004 with a revenue gap of Rs.492.25 Crore. The Commission in its order dated March 23, 2005 approved an ARR of Rs.3367.32 Crore and total revenue of Rs.3316.01 Crore, leaving a gap of Rs.51.31 Crore for 2005-06. The Commission approved the continuation of the existing tariff and other charges by KSEB for FY 2005-06, as the approved revenue gap of Rs.51.31 Crore was less than 2% of the total revenue requirements.

The ARR& ERC for the year 2006-07 was submitted on November 30, 2005 showing a revenue requirement of Rs.3997.51 Crore and total revenue of Rs.3694.73 from existing tariff and from non-tariff income, leaving a revenue gap of Rs.302.78 Crore. The Commission approved an ARR of Rs.3680.43 Crore and total revenue of Rs.3865.06 Crore with a surplus of Rs.184.63 Crore.

1.2 Procedural overview

In the ARR for FY 2007-08, the Board has projected the revenue requirement of Rs.4545.02 Crore and total revenue of Rs.4114.91 Crore from sale of power and from non-tariff income, leaving a revenue gap of Rs.430.11 Crore. In this connection, reference is made to the second paragraph of the covering letter No.KSEB/TRAC/TF05/P dated December 11, 2006 of the present petition of ARR&ERC for FY 2007-08, as quoted below:

"The Commission had directed to submit tariff proposals also along with ARR. The proposals for rationalizing tariff has to be necessarily dovetailed with the socio-economic policies of Government for which detailed consultation with Government is necessary. Therefore, the Board may be permitted to submit proposals for bridging the gap and rationalizing tariff after consultation with Government."

The Commission in its meeting held on December 12, 2006 decided to admit the petition as TP-23/2006. As directed by the Commission the summary of the filing was published in two Malayalam dailies, viz. Malayala Manorama and Mathrubhumi and two English dailies, viz., The New Indian Express and The Hindu, giving time till January 5, 2007 for the stakeholders to provide objections and suggestions; this date was later extended to January 15, 2007 against the request during the public hearing conducted by the Commission.

The Commission directed the Board to provide all supporting information relating to the petition, if requested for by the stakeholders, as indicated in the Petition. The copies of the petition were made available to the public at a cost of Rs.250/- per copy. The Commission placed the petition in its website for wider attention and circulated it among the members of the State Advisory Committee for their comments.

The Commission sought initial clarifications on the ARR *vide* letter dated 29-12-2006. The following are the details of the correspondence exchanged between the Commission and the Board regarding clarifications on the Petition.

Table 1.1 List of correspondence with the Board

Commission's Letter	Subject matter	Board's reply
No. KSERC/TP-23/2006/ 967 dated 29.12.06	Various issues	KSEB/TRAC/TF-05/P/780 dated 14.2.07
No. KSERC/TP-23/2006/30 dated 17.1.07	Forwarded written submissions of objectors/stakeholders for KSEB's response	KSEB/TRAC/TF-05/P/798 dated 23.2.07.
No. KSERC/TP-23/2006/42 dated 27.1.07	Forwarded written submissions of objectors/stakeholders for KSEB's response	KSEB/TRAC/TF-05/P/32 dated 13.3.07

The objections received on the ARR & ERC from the public/ stakeholders were forwarded to the Board. The objections received and the replies filed by the Board are furnished in Annexure I.

The ARR & ERC of the Board for FY 2007-08 was discussed in the thirteenth (13th) meeting of the State Advisory Committee (SAC) held on 20th December 2006 at Thiruvananthapuram. The minutes of the 13th State Advisory Committee meeting is enclosed as Annexure II.

The Commission conducted public hearings at Kozhikode on 2.1.07 and Kochi on 4.1.07; two public hearings were held at Thiruvananthapuram on 8.1.07 and 18.1.07. Chief Engineer (Commercial & Tariff) of the Board and his team from Tariff and Regulatory Affairs Cell (TRAC) of KSEB were present in all the public hearings. The list of persons participated in the public hearing is placed as Annexure – III.

As the Commission is of the view that firming up of ARR & ERC for 2006-07 could be made only against truing up petition with actual audited figures, the revised estimates for FY 2006-07 shown in the present filing has not been considered for the purpose of the Commission's approval The actual figures such as energy consumption, sales, generation, inflow, etc. given for FY 07 in the present filing are referred to only for the purpose of analyzing the trend for forecast/projection purpose.

The Electricity Act, 2003 requires the State Electricity Regulatory Commissions to consider the factors that encourage efficiency, economical use of resources, good performance, and optimal investments and also safeguard the interest of the consumers and recover the cost of electricity in a reasonable manner. Keeping the above provisions of the Act in view and after going through all the steps envisaged under the Act and the Regulations, and giving sufficient opportunity to all stakeholders and the Board to express their views, and considering the views of the State Advisory Committee and views expressed during the public hearings in detail, the Commission has decided on the ARR & ERC of the Board as described in the subsequent chapters.

Chapter II

ENERGY SALES PROJECTIONS

2.1 Sales Projections

The Board has projected the aggregate sales for FY 2007-08 as 12294.10 MU, which implies 9.28 % annual growth rate over 2006-07 (RE) and 9.41% Compounded Annual Growth Rate (CAGR) over 2004-05 (actual).

Based on the actual sale of energy upto September 2006, the Board re-estimated the total sale of energy for 2006-07 as 11250.10MU. The Board estimated 10.76% growth in LT consumption in 2006-07 as against 10.46% in 2005-06; and in the case of 110 kV EHT consumption the Board stated that actual sale up to September 2006 showed an increasing trend and hence the consumption was re-estimated from 715MU to 733MU. The Board projected an overall growth of 9.55% in 2006-07 as against 9.43% in 2005-06. According to the Board the methodology of assessment of energy consumption was based on the consumer category-wise consumption data and factors such as existing consumer strength and yearly growth, regional characteristics of consumers and seasonal variations in consumer habits affecting the consumption of energy. Consumer category wise sales data from FY 04 to FY 08 is shown in Table 2.1.

Table 2.1 Category wise Sales

	Consumption (MU)				
Category	FY 04	FY 05	FY 06	FY 07 (RE)	FY 08 (Estt.)
LT					
Domestic	4004	4262	4668	5175	5700
Commercial	879	948	1093	1230	1390
Industrial	751	783	874	950	1030
Irrigation & Dewatering	202	191	190	205	237
Public Lighting	166	183	208	229	252
Sub total	**6001**	**6366**	**7032**	**7789**	**8609**
HT					
HT-I, Industrial	1125	1238	1362	1468	1563
HT-II, Non Industrial/ Non Commercial	130	141	130	132	138
HT-III, Agricultural	9	9	10	10	11
HT-IV, Commercial	304	339	378	416	464
Sub total	**1569**	**1727**	**1880**	**2026**	**2176**
EHT					
EHT 66 k V	1107	1036	290	306	328
EHT 110 k V			714	733	756
Railway Traction	46	44	58	65	74
Bulk Supply	188	212	296	331	351
Sub total	**1342**	**1291**	**1358**	**1435**	**1509**
Total	**8911**	**9384**	**10270**	**11250**	**12294**

2.2 Deliberations in the State Advisory Committee

Shri. M.Ravindran Nair, Executive Director, CONTIPS, Thiruvananthapuram, stated that the estimation of energy requirement for FY 2007-08 need to be rechecked. According to him consumption of Railways might be much higher than that projected by the Board considering the railway electrification project being commissioned.

2.3 Stakeholders' views

In the public hearing conducted at Kochi Shri. A.A. Mohammed Nawas suggested reviewing category wise energy sales projection for FY 08

2.4 Commission's Approach

The growth in number of consumers from FY 2003-04 to FY2005-06 as furnished by the Board is given in Table 2.2

Table 2.2 Consumer Growth

Consumer Category	No. Of Consumers			Average annual Growth Rate, %		
	As on 31.3.04	As on 31.3.05	As on 31.3.06	FY05/ FY04	FY06/ FY05	FYO6/ FYO4
Domestic	5752116	6143228	6545692	6.80	6.55	6.68
LT Commercial	1037044	1124041	1202468	8.39	6.98	7.68
LT Industrial	107754	115056	119021	6.78	3.45	5.10
LT Others	401321	414927	425896	3.39	2.64	3.02
HT & EHT	1843	2024	2004	9.82	-0.99	4.28
Total	**7300078**	**7799276**	**8295081**	**6.84**	**6.36**	**6.60**

The domestic consumers form the single largest consumer group with a share of about 79% of the total number of consumers and about 45% to the total energy sales. The share of HT & EHT consumers, including railway and bulk supply constitutes about 0.03% of the total number of consumers and works out to about 32% of the total energy sales. The breakup of consumer profile and corresponding consumption as on 31.3.2006 filed by the Board is given in Table 2.

Table 2.3 Consumer Profile as on 31.3.06

Consumer Category	% To Total	
	No. Of Consumers	Energy Consumption
Domestic	78.91	45.46
LT Commercial	14.5	10.64
LT Industrial	1.43	8.51
LT Others	5.13	3.87
HT & EHT*	0.03	31.52
Total	**100**	**100**
*HT & EHT includes Railway & Bulk Supply consumers		

The category wise annual growth rate and compounded annual growth rate (CAGR) of sales from FY 2003-04 to FY 2007-08 are shown in the following Table 2.4 and Table 2.5 respectively.

Table 2.4 Annual Sales Growth rate

	Annual Growth rate, %			
Category	**FY05 / FY04**	**FY06 / FY05**	**FY07(RE) / FY06**	**FY08(Est.) / FY07 (RE)**
LT				
Domestic	6.45	9.53	10.85	10.14
Commercial	7.85	15.31	12.57	13.01
Industrial	4.32	11.62	8.71	8.42
Irrigation & Dewatering	-5.54	-0.64	8.14	15.61
Public Lighting	10.27	13.73	10.21	10.14
Sub total	6.09	10.46	10.76	10.53
HT				
HT-I, Industrial	10.03	10.02	7.76	6.47
HT-III, Agricultural	3.87	1.49	4.82	10.00
HT-IV, Commercial	11.28	11.56	10.09	11.54
Sub total	10.12	8.83	7.78	7.40
EHT				
EHT 66 k V	-6.45	-3.08	5.53	7.19
EHT 110 k V			2.69	3.14
Railway Traction	-5.46	32.89	12.19	13.85
Bulk Supply	12.28	39.98	11.80	6.04
Sub total	-3.79	5.19	5.69	5.16
Total	**5.31**	**9.43**	**9.55**	**9.28**

Table 2.5 Compounded Annual sales Growth Rate (CAGR)

Category	Compounded Annual Growth Rate (CAGR), %				
	FY06/ FY04	FY07(RE)/ FY04	FY08 (Est.)/ FY04	FY07 (RE)/ FY05	FY08 (Est.)/ FY05
LT					
Domestic	7.98	8.92	9.23	10.19	10.16
Commercial	11.52	11.85	12.15	13.93	13.61
Industrial	7.91	8.17	8.24	10.16	9.56
Irrigation & Dewatering	-3.12	0.50	4.08	3.65	7.49
Public Lighting	11.99	11.38	11.05	11.96	11.30
Sub total	8.25	9.07	9.44	10.61	10.57
HT					
HT-I, Industrial	10.02	9.26	8.56	8.88	8.07
HT-II, Non Ind l/ Non Comml	0.14	0.57	1.55	-3.42	-0.71
HT-III, Agricultural	2.67	3.38	5.00	3.14	5.37
HT-IV, Commercial	11.42	10.96	11.12	10.83	11.05
Sub total	9.47	8.90	8.53	8.30	7.99
EHT					
EHT 66 k V EHT 110 kV	-4.78	-2.09	0.53	0.16	1.53
Railway Traction	12.08	12.11	12.55	22.11	19.26
Bulk Supply	25.37	20.65	16.84	25.10	18.37
Sub total	0.60	2.27	2.98	5.44	5.34
Total	**7.35**	**8.07**	**8.38**	**9.49**	**9.41**

The data filed on sales forecast by the Board is more of a projection based on the consumption statistics and there is no conclusive substantiation with the supporting field survey data or macroeconomic or demographic data on load growth and consumption pattern; also there is no reference made to power surveys being carried out by CEA and assumptions / models followed.

The Commission has examined the sales based on the information available before the Commission and considers the following.

- In the case of LT domestic category, the Commission approves the growth rate 10.14% projected by the Board for 2007-08 over the revised estimate of 2006-07.
- Regarding the LT Commercial category, the Commission considers a growth rate of 14% over the revised estimate of 2006-07, against the 13.01% growth rate projected by the Board. This is based on the 15.31% annual growth rate of LT commercial consumption during 2005-06 and the 13.93% CAGR of LT commercial consumption from FY 05 to FY 07(RE).
- For the LT industrial category the annual growth rate was 11.62% during FY 2005-06 and CAGR from FY 05 to FY 07(RE) is 10.16%. Based on this the Commission envisages 9.50% growth rate against 8.42% projected by the Board.
- The Commission approves the sales projected by the Board for LT irrigation & dewatering, LT public lighting, HT- I industrial, HT Commercial, HT Non-industrial/non-commercial, HT Agricultural, EHT and bulk supply.

Table 2.5 Compounded Annual sales Growth Rate (CAGR)

Category	Compounded Annual Growth Rate (CAGR), %				
	FY06/ FY04	FY07(RE)/ FY04	FY08 (Est.)/ FY04	FY07 (RE)/ FY05	FY08 (Est.)/ FY05
LT					
Domestic	7.98	8.92	9.23	10.19	10.16
Commercial	11.52	11.85	12.15	13.93	13.61
Industrial	7.91	8.17	8.24	10.16	9.56
Irrigation & Dewatering	-3.12	0.50	4.08	3.65	7.49
Public Lighting	11.99	11.38	11.05	11.96	11.30
Sub total	8.25	9.07	9.44	10.61	10.57
HT					
HT-I, Industrial	10.02	9.26	8.56	8.88	8.07
HT-II, Non Ind l/ Non Comml	0.14	0.57	1.55	-3.42	-0.71
HT-III, Agricultural	2.67	3.38	5.00	3.14	5.37
HT-IV, Commercial	11.42	10.96	11.12	10.83	11.05
Sub total	9.47	8.90	8.53	8.30	7.99
EHT					
EHT 66 k V EHT 110 kV	-4.78	-2.09	0.53	0.16	1.53
Railway Traction	12.08	12.11	12.55	22.11	19.26
Bulk Supply	25.37	20.65	16.84	25.10	18.37
Sub total	0.60	2.27	2.98	5.44	5.34
Total	**7.35**	**8.07**	**8.38**	**9.49**	**9.41**

- The consumption by Railways was increased by 32.89% in 2005-06, and the Board expects a growth of 12.19% in 2006-07. The revised estimate given for FY 07 is 65MU and the Board projected an additional consumption of 9MU for FY 08, which works out to a consumption of 74MU for FY 08. However, considering the additional load on the recently commissioned electrification that would be operational in FY08, the Commission envisages annual consumption of about 78.45MU.

Accordingly, the Commission approves an annual growth rate of 9.52% for the FY 2007-08, against the Board's projection of 9.28 % with respect to the revised sales estimation for FY 2006-07. The Commission approved sales for FY 2007-08 as shown in Table 2.6

Table 2.6: Approved sales for FY 2007-08

Category	AS PER ARR SUBMITTED BY KSEB					APPROVED BY KSERC	
	FY 06	Revised Estimate	Projection	Annual Growth rate		Projection	Annual Growth rate
	Actual	FY 07(RE)	FY 08 (Est.)	F07/ F06	F08/ F07	FY 08	FY 08/ FY07
	MU	MU	MU	%	%	MU	%
LT							
Domestic	4668	5175	5700	10.85	10.14	5700	10.14
Commercial	1093	1230	1390	12.57	13.01	1402	14.00
Industrial	874	950	1030	8.71	8.42	1040	9.50
Irrigation & Dewatering	190	205	237	8.14	15.61	237	15.61
Public Lighting	208	229	252	10.21	10.04	252	1.0.04
Sub total	7032	7789	8609	10.76	10.53	8631	10.82
HT							
HT-I, Industrial	1362	1468	1563	7.76	6.47	1563	6.47
HT-II, Non Ind/Non Comml	130	132	138	1.45	4.55	138	4.55
HT-III, Agricultural	10	10	11	4.82	10.00	11	10.00
HT-IV, Commercial	378	416	464	10.09	11.54	464	11.54
Sub total	1880	2026	2176	7.78	7.40	2176	7.40
EHT							
EHT 66 k V	290	306	328	5.53	7.19	328	7.19
EHT 110 k V	714	733	756	2.69	3.14	756	3.14
Railway Traction	58	65	74	12.19	13.85	78	20.69
Bulk Supply	296	331	351	11.80	6.04	351	11.80
Sub total	1358	1435	1509	5.69	5.16	1513	5.47
Total	**10270**	**11250**	**12294**	**9.55**	**9.28**	**12321**	**9.52**

2.5 Commission's Observations

The historical data on annual growth of consumers vs. consumption may not establish by itself an extrapolative relation in the forecast perspective, as shown in Table 2.7.

Total 6.84 6.36 6.60 5.31

Table 2.7 Annual Growth rates of Consumers and Consumption

Consumer Category	Growth Rate of Number of Consumers, %			Growth Rate of Consumption, %		
	FY05/ FY04	FY06/ FY05	FYO6/ FYO4 (CAGR)	FY05/ FY04	FY06/ FY05	FYO6/ FYO4 (CAGR)
Domestic	6.80	6.55	6.68	6.45	9.53	7.98
LT Commercial	8.39	6.98	7.68	7.85	15.31	11.52
LT Industrial	6.78	3.45	5.10	4.32	11.62	7.91
LT Others	3.39	2.64	3.02	1.59	6.39	3.96
HT & EHT	9.82	-0.99	4.28	3.71	7.27	5.47
Total	**6.84**	**6.36**	**6.60**	**5.31**	**9.43**	**7.35**

The time taken to dispose the pending connections and the actual time taken to energize consumers in the case of a new service connections or additional load matters. As per Section 43 of the Electricity Act, 2003, and the Provisos thereof,

"Every distribution licensee, shall, on an application by the owner or occupier of any premises, give supply of electricity to such premises, within one month after receipt of the application requiring such supply…" The Board has not submitted category-wise pending applications and targeted date of connection.

In the Order on ARR&ERC for FY 2006-07 of the Board, the Commission had pointed out the stipulations in the Grid Code regarding the responsibility of the Board as a distribution licensee in determining the demand and energy forecast; and as per proviso to Section 39(2)(b) of the Electricity Act, 2003, the Board as STU shall discharge all functions of planning and co-ordination relating to intra-State transmission. Reference was also made to Section 5.4.4 of The National Electricity policy, which states the Multi-Year Tariff (MYT) and the detailed data requirement on demand and energy forecast. The Commission specifically directed the Board to develop an extensive database and apply the best-suited forecast methodology including measures for market development and increasing the energy sales and submit the same with detailed sales forecast. However, the Board had confined to the analysis of the available statistics on billing data in its sales projections.

The Board has stated that as per the 17th Power Survey conducted by CEA the State has an additional generation requirement of about 1000MW during next five year. However, the Board has not submitted the details regarding the Power Survey of CEA applicable to the demand and energy projections filed by the Board.

9.43	7.35

The Commission in its letter dated 29.12.06 sought the following details on Sales (Demand and Energy) as compiled by the Board in carrying out the projections for FY 08.

- Compilation of data (field data/survey data) from section/division/circle on expected load, consumption and demand
- Computation based on Load Factor in arriving at the expected maximum demand in the Kerala Power System
- On the basis of the above, revisit the forecasted figures given in the ARR filing for FY 2007-08 and resubmit, if required.

The Board, vide latter dated 14.2.2007 stated that the data (field data/survey data) from section/division/circle on expected load and the computation based on Load Factor were not readily available and the same would be collected and submitted separately. The Board stated that maximum peak demand was 2578 MW and 2664 MW in 2005-06 and 2006-07 respectively.

The Commission emphasizes the significance of field data on energy, demand and load factor profile for the forecast as well as for demand management and urge upon the Board to establish such a database.

The revenue growth has a strong bearing in computing aggregate revenue requirement and investment plan. The risk that could arise in the planning process as a result of uncertainty in electricity demand and energy forecast may be considered. Simple historical trends based on bill data or consumption statistics may no longer be good enough, since consideration of load growth, sales increase, efficiency, competition, service quality etc. are some of the salient requirements envisaged in the Act and Policies.

As power generation and purchase need to be addressed in the State, it became clear that the patterns of electricity demand over seasons, months and hours of the day has to be considered, which builds up the hourly shape of demand, based on the underlying hourly shapes of electricity use by the different types of end-use equipments. Analyzing sales patterns for different locations/sections, refining the market analysis, determining new areas of opportunity for sale, optimizing sales forecasting and market planning form integral part of forecast strategy.

The Commission directs the Board to consider all the above points and submit detailed forecasting with supporting field data, methodology and models in the ensuing filing, including measures for market development and increasing energy sales.

Chapter III

AGGREGATE TECHNICAL & COMMERCIAL LOSS

3.1 Introduction

The Board has classified the losses in the system into external loss and internal loss. External loss is due to the wheeling of power from Central Generating Stations (CGS) through Central Transmission Utility (CTU) / Inter State Transmission System (ISTS) network, over which the Board has no control. The external loss is added to the power received at the interface points in the KSEB system. The losses in the KSEB network are termed as internal losses. The ex-bus input of internal generation of KSEB is internal generation less auxiliary consumption. The Board has indicated the actual external loss as 3.88% for FY 2005-06 and 4.5% for FY 2006-07 (upto September, 2006).

The internal loss for FY 2007-08 has been projected at 19.72%, which is about 1.83 % less than the estimated losses in FY 2006-07. Board has stated, that replacement of faulty/ sluggish meters, intensification of theft detection, installations of new substations and lines, etc. are the major loss reduction measures taken up.

Through APDRP scheme, the Board has replaced about 6.38 Lakh faulty meters during FY 2005-06 and 1.02 Lakh meters upto September 2006.

Against the Commission's queries dated 29.12.06, the Board responded vide letter dated 14.2.07 that 149,235 faulty meters have been replaced as on 31.12.06 for 2006-07. The shortage of meters is reported as the reason for slow progress in faulty meter replacement. The Board stated that measures have been initiated to improve the meter availability and the following target is set for Jan 07, Feb 07 and Mar 07. This confirms that 400,000 faulty meters would be replaced as targeted in the ARR for FY 07.

Month & Year	No. of faulty meters targeted for replacement
January, 2007	71160
February, 2007	86160
March, 2007	93445
Total for Jan, Feb, Mar 07	250765
Already replaced till Dec, 06	149235
Total, 2006-07	400000
Target shown in ARR 2006-07 for 2006-07	400000

The category wise details of faulty meters reported as below shows that the maximum share of faulty meters is in the domestic consumer category; and only about 1% in the case of industrial consumer category.

Consumer Category	No. of faulty meters	% to total faulty meters
Domestic	515,665	77.00
Non domestic	93,377	14.00
Agriculture	50,932	8.00
Industrial	5,241	1.00
Total	665,215	100.00

The Board stated that analysis of consumer category wise impact on AT&C loss due to faulty meter involves reports from field level and the same would be furnished to the Commission separately.

The Board also stated that the Anti Power Theft Squad (APTS) had assessed power theft amounting to Rs.21.69 Crore and Rs.7.83 Crore in 2005-06 and in 2006-07 (upto September 2006) and realized Rs.9.82 Crore and Rs.7.01 Crore respectively.

During 2005-06 the Board has commissioned one 220 kV substation, four 110 kV substations, four 66 kV substations and ten 33 kV substations.

The loss level proposed for FY 2006-07 was 21.55%. The Board has envisaged a loss reduction of 1.83% during FY 2007-08. The estimated reduction for 2006-07 is 1.41% as against the target of 2.50% stipulated by the Commission.

The Board clarified vide letter dated 14.2.07 that the tables titled as AT&C loss in the ARR indicate the T& D loss and not AT&C loss.

The Board has submitted vide letter dated 14.2.07 the town wise / circle wise AT&C Loss as given in the “benchmark parameter for APDRP town schemes and circle schemes” for FY 05, for FY 06 and for FY 07 (till Sept-06). The AT&C loss data extracted from the Board’s said submission is given in Table 3.1 and the average AT&C loss for these 45 towns works as follows:

Average AT &C Loss (%) for 45 towns		
2004-05	2005-06	2006-07 (upto Sept-06)
27.92	23.27	22.27

It is also observed from the said submission that the average power factor in the distribution system is only in the range of 0.8 to 0.85 and the average HT/LT ratio prevailing in the distribution system is in the range of 1: 3 to 1: 7.7.

From these information, the Commission presumes that the Board would be taking up appropriate site specific/town specific measures for reducing the T&D loss such as load center power factor improvement, re-conductoring/ strengthening the existing lines, HT/LT ratio optimization, improving collection efficiency, improving metering, demand side management, criterion for new service connection based on efficiency consideration such as HT/LT ratio vis-à-vis loading and balancing of distribution transformer centres.

Table 3.1 AT&C Loss: APDRP town schemes and circle schemes

Name of Town	AT &C Loss, % 2004-05	2005-06	2006-07 (upto Sept-06)	Name of Town	AT &C Loss, % 2004-05	2005-06	2006-07 (upto Sept-06)
Alappuzha	26.29	15.98	9.60	Kozhikkode	19.71	19.03	8.58
Aluva	24.54	21.14	8.67	Kunnamkulam	30.89	26.84	19.73
Angamaly	28.49	27.65	26.88	Kuthuparamba	25.50	24.72	23.70
Chalakudy	25.38	17.36	19.40	Mattanur	23.25	20.56	24.26
Changanachery	27.47	22.80	21.81	Maveliikara	38.89	28.96	25.15
Chengannur	28.97	28.68	33.22	Muvattupuzha	33.98	23.19	25.10
Chertala	33.26	19.39	22.70	Nedumangad	27.90	23.38	19.07
Chittur	30.63	28.80	28.61	Neyyatinkara	41.70	30.42	51.71
Guruvayur-Cahavakkad	28.95	23.70	22.42	North Paravur	25.31	19.57	13.18
Irinjalakuda	28.50	25.41	21.82	Ottapalam	40.20	32.04	32.94
Kalamassery	25.44	16.14	7.06	Pala	28.79	28.64	34.91
Kalpetta	21.42	21.00	28.43	Palakkad	27.20	21.06	21.10
Kannur	22.27	20.05	20.66	Payyanur	31.37	30.54	26.41
Kayamkulam	33.54	28.30	23.36	Perumbavur	27.26	23.38	20.35
Kochi	20.16	13.18	7.27	Punalur	31.87	28.12	25.94
Kodungallur	30.70	23.76	8.12	Shornur	33.40	32.05	34.23
Koilandy	22.82	17.93	18.63	South Paravur	28.92	27.08	32.92
Kollam	16.43	15.94	17.80	Thalassery	20.42	18.79	19.47
Kottyam	27.20	18.91	15.32	Thaliparamba	26.45	25.78	30.55
Kozhikkode	19.71	19.03	8.58	Thiruvananthapuram	26.56	16.33	18.31
Kunnamkulam	30.89	26.84	19.73	Thodupuzha	30.25	30.05	31.89
Kuthuparamba	25.50	24.72	23.70	Tripunithara	23.38	17.96	14.66
Mattanur	23.25	20.56	24.26	Trissur	20.32	19.46	22.15
Maveliikara	38.89	28.96	25.15	Vadakara	25.70	23.38	20.93

The Board has submitted the maximum demand, power factor and load factor for five 220 kV, forty 110 kV and forty 66 kV substations, vide letter dated 14.2.07, based on which the range and average of power factor and load factor are found to be the following:

Substation Voltage Level	Power Factor		Load Factor, %	
	Range	Average	Range	Average
220 k V	0.85 to 0.90	0.87	42 to 90	64
110 k V	0.85 to 0.97	0.89	41 to 95	58
66 k V	0.80 to 0.99	0.89	28 to 88	64

As per the Board's submission dated 14.2.07, no meters are provided for MD and PF monitoring at the following substations:

- Kalamssery Brahmapuram 220 kV Substation
- Nine 110 kV substations, including eight 110 kV substations at Kalamassery circle
- Thirteen 66 kV substations, including five 66 kV substations at Poovanthuruthu circle and four 66 kV substations at Kalamassery

The preliminary review of the above data reveals potential for improvement of power factor and load factor; the Board may analyze the techno-economics and identify the projects for power factor improvement and load management, including consumer side efforts and incentives. Installation of meters at appropriate locations and periodical monitoring and analysis calls for special attention.

3.2 Targeted Loss reduction measures

In order to achieve the loss reduction for FY 2007-08, the Board has envisaged faulty meter replacement, intensification of theft detection and commissioning of a number of T&D schemes, including implementation of projects under APDRP and RGGVY schemes. The loss reduction target submitted by the Board is given in Table 3.2

Table 3.2 Loss reduction target for FY 2007-08

Particulars	FY 2005-06 (Actual)	FY 2006-07 (Estimated)	FY 2007-08 (Estimated)
Net Energy input to KSEB System (MU)	13331	14340	15318
Energy sales (MU)	10269	11250	12294
Internal Loss, %	22.96	21.55	19.72
Loss Reduction Proposed, %		1.41	1.83

The Board has stated that replacement of 4.13 Lakh faulty meters are targeted for 2007-08.

The Board envisages accomplishing the following Transmission and Distribution work programme during 2006-07 and 2007-08, which would contribute towards achieving the targeted loss reduction.

Table 3. 3 Programme for Transmission and Distribution works

Substations	**Units**	**FY 06-07**	**FY 07-08**
220 kV	Nos	1	2
110 kV	Nos	5	11
66 kV	Nos	4	1
Distribution Projects			
33 kV	Nos	20	11
11 k V Lines	km	2000	3427
LT Line	km	10000	4043
Distribution Transformers	Nos	3000	2009

3.3 Stakeholders' views

The Kerala HT& EHT Industrial Electricity Consumer's Association in its written objection dated 13.1.07 and in the public hearing conducted at Thiruvananthapuram on 20.1.2007 stated the following:

"The deviation in generation cost of the Board was on account of two variations: volume changes or price changes. Volume changes again occur because of losses or sales. Increase in sales is a profit to the Board but increase in losses is on account of inefficiency in performance. The deviation in loss volumes from approved level is 433 MU. (Approved level: 20.45% and estimated actual loss: 23.40%) This amounts to Rs.173 Crore, computed using marginal power purchase cost based on the principle of merit order dispatch (NLC, KDPP and BDPP are taken as the marginal stations). Hence the Objector humbly requests the Hon'ble Commission to disallow this cost of Rs.173 Crore from power purchase."

In the public hearing conducted at Kochi on 4.1.2007, Sri.Madhusudhanan said that in all the previous public hearings of KSEB, he expressed lapses on KSEB's part in monitoring and quantifying T&D loss and in turn, lapses on formulating and implementing appropriate projects to mitigate T&D losses. He suggested that at least selected circle level data should be collected with proper installation of metering so that actual loss profile could be quantified and suitable measures could be scientifically evolved for loss minimization with cost-benefit analysis. He stated that without even generating required primary field data, KSEB continue to project the T&D Loss and loss reduction targets on arbitrary basis. The figures provided as generating plant auxiliary consumption were un-metered and arbitrary; and much of the auxiliary consumption might be accountable to so called misuse of electricity for personal needs; and majority of these personal usage might be happening during the system peak load. He requested the Commission to direct the Board to take serious, targeted measures to address the T&D loss and ensure metered values as auxiliary consumption.

3.4 Commission's Approach

As per ARR& ERC, the actual external loss during the years from FY 2001-02 to FY 2005-06 and estimated external loss for FY 2006-07 & FY 2007-08, range from 2.18% to 4.45% of the total energy purchase as shown below in Table 3.4

Table 3.4 Details of External Loss

Items	Total Power purchase (MU)	External Loss (MU)	External Loss as % of power purchase
2001-02 (Actual)	5676.82	255.06	4.49
2002-03 (Actual)	7320.37	238.81	3.26
2003-04 (Actual)	8015.41	174.50	2.18
2004-05 (Actual)	5390.74	214.93	3.99
2005-06 (Prov.)	6700.27	287.64	4.29
2006-07 (Revised)	7804.37	346.61	4.44
2007-08 (Estimate)	8677.77	359.44	4.14

Though the Board has indicated that external losses were beyond its control, higher level of losses is an area of concern.

Regarding internal losses, the actual loss level for FY 2005-06 is 22.96%, which is about 1.99% lower than that for FY 2004-05. The actual internal loss for FY 2001-02, FY 2002-03, FY 2003-04 and FY 2004-05, FY 2005-06 and estimated for FY 2006-07 & FY 2007-08 as given by the Board is shown in Table 3.4.

Table 3.4 Details of Internal Loss

Items	Energy input at KSEB system (excl. external loss)	Energy loss in the KSEB system (internal)	Internal energy loss	Extent of Reduction in the KSEB system
	MU	MU	%	%
2001-02 (Actual)	12518	3851	30.76	
2002-03 (Actual)	12512	3639	29.08	1.68
2003-04 (Actual)	12281	3370	27.44	1.64
2004-05 (Actual)	12505	3120	24.95	2.49
2005-06 (Prov.)	13331	3061	22.96	1.99
2006-07 (Revised)	14340	3090	21.55	1.41
2007-08 (Estimate)	15318	3024	19.72	1.83

The Board vide letter dated 14.2.07 has stated that the sale of power outside the state is being done by displacement of KSEB share of CGS import and the same is metered at Kerala periphery; therefore the sale of power outside state has no effect on T&D loss of Kerala power system.

The Board has not submitted the impact of the present incentives to HT/EHT Consumers on TOD Pricing and PF Improvement. The PF improvement aims at minimizing the I^2R loss by reducing the reactive power flow and higher ampere loading of lines & power system. The effective ToD incentive aims at reducing the system peak load and minimizing the purchase and/or generation of high cost peak power and reduce the loss incident as a result of overloading of lines & power system at peak period. This can be found out either by actual metered values and billing or by load flow study based on actual field data on load flow, LF and PF profile. Such a study and analysis is essential to arrive at the right PF, LF and ToD incentives.

The proposed and ongoing substation and line projects and investments are not identified with any loss minimization program supported by cost benefit analysis.

The Board could submit only the provisional consumption (in units) and demand (in Rupee) from April 06 to August-06 against the Commission's direction to furnish monthly energy billed, demand, collection and collection efficiency in respect of different categories of consumers. It may be noted that analysis of DCB statements is one important aspect in the AT&C data monitoring.

In the ARR filing for 2006-07, the Board has stated that 8.5 Lakh faulty meters were targeted for replacement in 2005-06; as per the present filing actual achievement in 2005-06 was 25% below the target; i.e. only 6.38 Lakh, leaving a backlog of 2.12 Lakh meters. The target for 2006-07 was 4 Lakh, against which the achievement is only 1.02 Lakhs meters upto September 2006. Therefore, the backlog of 2005-06 plus balance in the target for 2006-07 works out to 5.1 Lakh meters that would have been replaced during October 2006 to March 2007. The Board has submitted vide letter-dated 14.2.07 that the target for replacement of 400,000 meters for 2006-07 would be achieved by improving the delivery of meters.

The Board shall also pay due seriousness to Section 55 of the Act, wherein installation of correct meter by the Licensee is emphasized and in turn the legitimate right of the consumer to get the energy consumed by him correctly metered.

The trend of loss reduction achieved by the Board in comparison with the Commission's directives is tabulated below.

FY	Internal Loss, %	
	KSERC Order	Achieved by KSEB
2004-05	24.43	24.95
2005-06	21.89	22.96
2006-07	20.45	21.55

The Commission insists that the Board shall be in a position to achieve a minimum of 2% loss reduction in FY 2007-08; and on this basis the internal loss shall be 21.55% minus 2%, i.e., 19.55%.

The Commission is of the view that intensification of the Anti Power Theft Squad activities, accomplishing the replacement of targeted faulty meters, implementation of loss reduction projects and APDRP shall contribute substantially towards overall loss reduction.

Also, attention is drawn to Para 4(1) and 4(2) of the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, wherein it is stated that all interface meters, consumer meters and energy accounting and audit meters shall be of static type and the meters not complying with these regulations shall be replaced by the licensee on his own or at the request of consumer. Accordingly, if the present non-static meters are replaced during a planned period, it shall contribute largely to loss reduction.

The monthly energy input to the KSEB system from April 2006 to November 2006 is given below.

Month	Energy Input to KSEB, MU
Apr-06	1264
May-06	1227
Jun-06	1154
Jul-06	1160
Aug-06	1215
Sep-06	1171
Oct-06	1226
Nov-06	1211
Total	**9628**

The energy requirement for FY 2007-08 based on 19.55% loss for the approved level of sales of 12321 MU would be 15315 MU as tabulated below.

PARTICULARS	ARR	Approved by KSERC
Energy sales (MU)	12294	12321
Internal Loss (%)	19.72	19.55
Net Energy input to KSEB System (MU)	15315	15315
Loss Reduction (%)	1.83	2.00

3.5 Commission's Observations

The Commission directs the Board to:

- ***Complete the programme for installation of energy meters on distribution transformers and submit the voltage level loss***
- ***Submit comprehensive report in respect of DCB statements and energy balance and AT&C loss calculations.***
- ***Segregate the technical and commercial loss, on voltage level wise and monitor the AT&C loss and submit quarterly circle wise and division-wise report.***
- ***Submit investment plan for loss reduction project with cost benefit analysis***

Chapter IV

REVIEW OF CAPITAL PROJECTS AND EXPENDITURE

4.1 Introduction

The Board has stated that its ongoing and proposed capital investment projects could be categorized as given below.

- Development of hydel, wind power and other non- conventional energy sources (NCES) based generation projects within the State
- Strengthening of intra-state transmission system
- Strengthening of distribution system
- Replacing the faulty and sluggish meters
- Projects for reducing the technical losses including re-conductoring of old lines, power factor (PF) compensation, high voltage distribution system (HVDS)
- Projects under Accelerated Power Development and Reforms Projects (APDRP) and Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) schemes
- Renovation & Modernization projects such as generation upgrade, communication Systems, State Load despatch Centers (SLDC), relays, Unified Load Despatch and Communication (ULDC), Implementation of Supervisory Control and Data Acquisition (SCADA), Geographical Information System (GIS) and networking Automatic Meter Reading (AMR).
- Special projects such as Tsunami Rehabilitation Projects (TRP), providing service connections to socially and economically backward sections
- Customer care improvement such as expansion of Trouble Call Management System (TCMS), of quality power supply in all Municipalities and Corporations
- Survey and investigations

4.2 Brief Analysis of Capital Investment Proposals and achievements

The capital works in progress (CWIP) proposed, revised and actuals for FY 2005-06 is given below in Table 4.1. The total capital expenditure actually realized is only little over 50% of the provision.

In the ARR for 2006-07, the Board had proposed total capital expenditure of Rs.760 Crore, which is revised to a marginally higher figure of Rs.782.22 Crore in the present filing.

Table 4.1 Capital works in progress in FY06

Description	CWIP 2005-06, Rs.Crore.		
	ARR	Revised	Actual
Opening Balance	1351.49	1303.49	1303.98
Capital Expenditure	695.21	554.35	407.82
Interest and Fin. charges capitalized	99.15	54.97	48.50
Other expenses capitalized	158.95	40.68	43.61
Total Capital Expenditure for the year	953.31	650.00	499.93
Total	2304.80	1953.49	1803.91
Less Expenditure capitalized (Transferred to gross asset)	905.68	543.03	651.65
Closing Balance (4 – 5)	1399.12	1410.46	1152.26

The investment plan for 2006-07 and for 2007-08 as submitted by the Board is given in Table 4.2

Table 4.2 Capital Investment Plan for FY 07 and FY 08

Scheme/Project	Investment Plan (Rs.Crore)				
	2006-07				2007-08
	ARR 2006-07	Annual Plan (ARR for FY08)	Revised Annual Plan (ARR for FY 08)	Revised (ARR FY08)	ARR FY 08
Hydel Ongoing Schemes	82.50	83.50	196.65	-	53.90
Hydel New Schemes	82.00	82.00	87.60	-	207.80
Completed Schemes	4.95	3.95	6.50	-	0.83
Existing Thermal	3.60	3.60	7.06	-	5.74
New Wind/NCES Project	0.00	9.00	12.00	-	23.75
Renovation & Modernization	41.20	41.20	37.41	-	17.55
Others in Generation	35.75	26.75	64.52	-	26.85
Total Generation	*250.00*	*250.00*	*411.74*	*323.94*	*336.42*
Transmission	*218.50*	*218.50*	*168.78*	*168.78*	*221.80*
Distribution	*290.00*	*429.09*	*288.00*	*288.00*	*464.36*
Others in General	*1.50*	*1.50*	*1.50*	*1.50*	*0.00*
Total	**760.00**	**899.09**	**870.02**	**782.22**	**1022.58**

The Board has stated that since 2002 they have obtained sanction of Rs.905.01 Crore from Government of India (GoI) for implementation of APDRP with 25% of the cost as grant. For electrification of households in unelectrified villages / habitats in the state, GoI has sanctioned Rs.438.36 Crore under the RGGVY scheme, with 90% of the cost as grant.

The Board has stated that projects amounting to Rs.175 Crore would be accomplished in 2006-07 under APDRP. The Board has revised the project outlay under RGGVY scheme to Rs.34 Crore from Rs.90 Crore proposed in the ARR for 2006-07.

In FY 2007-08, the Board has proposed Rs.75.31 Crore. and Rs.126.46 Crore under APDRP and RGGVY schemes respectively in the distribution sector.

The Commission vide letter dated 29th December 2006 sought clarification regarding the difference in physical progress/targets in FY 2005-06 and the implication on the slippage in T&D loss reduction and service connections.

Particulars for FY 2005-06	**Given in the ARR for FY08 (Present Filing)**	**Given in the ARR for FY 07 (Previous Year's Filing)**
EHT Substation (nos)	19	48
HT Lines (circuit km)	1062	4528
LT lines added (circuit km)	6439	13000
No of distribution transformers added	1778	8500

The Board responded in its letter dated 14.2.2007 that the particulars given in the previous year was the targets and the details for the same period given in the present filing was the actual. The response neither explains the reasons attributable to the slippage nor its implication in the targeted physical accomplishment of T&D loss reduction and service connections.

Against the clarification sought by the Commission vide letter dated 29.12.06 regarding the actual physical and financial progress till third quarter of FY 06(Dec.06), the Board had submitted vide letter dated 14.2.07 a table showing section wise investment plan with list of ongoing schemes and completed schemes with budget estimate and revised estimate, with no details of actual physical and financial progress.

The Board has not submitted any other project management data such as DPRs, project schedules, financial outlay and physical progress vs. targets, project slippage recovery.

4.3 Stakeholders' view

In the public hearing conducted at Kochi on 4.1.2007 Shri. Antony Paul was citing examples from various data compiled by him on the so called exaggerative and unacceptable cost overruns and various issues regarding the capital projects of KSEB. He opined that the price variation clauses and provisions for change/variation orders stated in various contracts were very much on the higher side and illegitimate, considering the other similar provisions in government contracts and acceptable project standards.

4.4 Commissions Observations

The Board shall submit all relevant details including DPR for the approval of the Capital Investment sufficiently in advance. The approval of the Commission shall be in accordance with defined project evaluation criteria duly considering the parameters relating to reliability, customer satisfaction, and performance targets etc. The Board shall prepare comprehensive need based five-year investment plan bringing out well-defined objectives, for the approval of the Commission. Any new projects proposed shall be part of the approved investment plan. The investment plans shall be updated annually and furnished before the Commission. The physical and financial progress shall be submitted for periodical monitoring with targeted and actual physical and financial achievement; and revisions, if any with source of funds and justification thereof. The Commission is not in a position to grant the approval of the scheme wise investment plan in the absence of above details.

Chapter V

AGGREGATE REVENUE REQUIREMENT

5.1 Power Generation and Purchase

5.1.1 Internal Generation

Hydroelectric Projects (HEP)

The Board has considered the average annual inflow of water for the immediate past ten years from 1997-98 to 2006-07 and the expected carryover of storage from the year 2006-07 and the new hydroelectric projects to be commissioned, in estimating the hydro generation during FY 2007-08. The ten-year average inflow works out to 6424 MU. The Board envisages to commission new capacity additions, viz., Kuttiadi Additional Extension, Neriamangalam Extension, Kuttiadi Tail Race and Kuttiar diversion, totaling to about 350MU. Thus the total estimated generation of hydel energy in 2007-08 would be 6934MU and the net generation after considering 0.5% auxiliary consumption would be 6899 MU.

Diesel Stations

KSEB has stated that considering the increase in peak load requirements and the point of system reliability, they proposed to operate 40MW and 60 MW from the Board owned Brahmapuram Diesel Power Plant (BDPP) and Kozhikode Diesel Power Plant (KDPP) respectively during peak hours in 2007-08. Thus, they propose to generate 41.32 MU from BDPP and 61.98 MU from KDPP during 2007-08; considering 2% as auxiliary consumption, the net generation proposed totals to 101.23 MU.

Windmill

The Board has considered 3MU generation from its windmill at Kanjikode.

Internal Generation Cost

The KSEB has considered the internal generation cost of hydroelectric stations at the rate of three (3) Paisa per kWh. Thus, the total cost of generation from hydel sources would be Rs.20.69 Crore for FY 08. Since the same is accounted in other heads of expenditure, it is not included in the generation cost separately.

The average cost of BDPP and KDPP worked out to be Rs.5.80/kWh and Rs.5.08/kWh, respectively. The total variable cost for the proposed generation from BDPP and KDPP is reported as Rs.23.49 Crore and Rs.30.86 Crore respectively.

For wind generation, the cost is assumed as Rs.2.07/kWh. Thus the proposed cost of generation from internal sources for FY 2007-08 would be as follows:

Table 5.1: Availability and Cost of Internal Generation

Sources	Gross Generation (MU)	Auxiliary Consumption (MU)	Net Generation (MU)	Cost (Rs./kWh)	Total cost (Rs.Crore)
Hydel	6934.00	34.67	6899.33	0.03	20.70
BDPP	41.32	0.83	40.49	5.80	23.49
KDPP	61.98	1.24	60.74	5.08	30.86
Wind	3.00	0.00	3.00	2.06	0.62
Total	7040.30	36.74	7003.56	-	75.67

5.1.2 Power Purchase

The major sources of purchase are Central Generating Stations (CGS) and IPPs. The Board has envisaged 7987.53 MU from CGS and 160.34MU from IPPs.

Central Generating Stations (CGS)

The total allocated capacity from CGS to the KSEB is 1400 MW, which includes 160 MW from the Koodamkulam, nuclear power plant and 57.7 MW from Kaiga –Stage II, nuclear power plant that are expected to be in commercial operation by April 2007 and January 2008 respectively. The Board has included full drawal of power from these Nuclear Stations and MAPS. The energy from the CGS stations is scheduled at the generator bus and there is an average PGCIL line loss of 4.5% (average external loss for the period from April-06 to September-06) in the transmission system between the generator bus and KSEB bus.

Board has stated that, the fixed cost commitments from CGS for FY 2007-08 has been estimated, as Rs.721.46 Crore and the variable cost as Rs.731.67 Crore. Thus the total cost of power purchase from CGS for FY 2007-08 is estimated as Rs.1510.72 Crore, which includes net UI import of 529.9 MU and taxes and incentives etc. of Rs.57.60 Crore, as shown in Table 5.2Table 5.2: Power purchase cost from Central Stations

RGCCPP Kayamkulam and IPPs

Total installed capacity of RGCCPP is 360 MW, of which 180 MW is available to the Board and 180 MW has been earmarked for Tamil Nadu. Based on the merit order ranking, the Board has not considered any generation from RGCCPP for FY 2007-08 and the fixed charges are estimated at Rs.98.34 Crore. In order to compensate for the high variable charges of the station due to the high cost of naphtha which is being used as the fuel, Ministry of Power, Government of

Table 5.2: Power purchase cost from Central Stations

Source	Energy scheduled at generator bus	External loss	Net Energy input into KSEB system	Fixed cost	Variable unit cost	Variable cost	Incentive, tax etc.	Total (Rs.Crore)
	(MU)	(MU)	(MU)	(Rs.Crore)	(Rs/kWh)	(Rs.Crore)	(Rs.Crore)	(Rs.Crore)
Talcher - II	2949.67	132.74	2816.93	227.86	0.64	188.78	1.40	418.04
NLC II - Stage-I	433.24	19.50	413.74	10.80	1.20	51.99	13.50	76.29
NTPC- RSTPS	1984.87	89.32	1895.55	64.50	1.04	206.43	30.70	301.63
NTPC- RSTPS (New)	505.61	22.75	482.86	32.54	1.04	52.58	0.00	85.12
NLC II - Stage II	611.92	27.54	584.39	24.62	1.20	73.43	3.90	101.95
NLC - Exp	460.19	20.71	439.48	46.68	1.14	52.46	5.00	104.14
MAPS	126.05	5.67	120.38	24.96	1.98	-	2.80	27.76
Kaiga	341.35	15.36	325.99	102.75	3.01	-	0.30	103.05
Kudamkulam	233.28	10.50	222.78	75.82	3.25	-	0.00	75.82
Kaiga Stage-II	341.35	15.36	325.99	110.94	3.25	-	-	110.94
UI Import	529.90	-	529.90	-	2.00	105.98	-	105.98
Total	**8517.43**	**359.45**	**8157.99**	**721.46**		**731.65**	**57.60**	**1510.72**

India has allocated 180 MW of cheaper power from the unallocated portion of Talcher-II station to KSEB with effect from 1-11-2005.

In the case of BSES, whose installed capacity is 157 MW the Board has considered 110.09 MU generation with Rs.68.15 Crore as variable cost; and the fixed costs is estimated as Rs.102 Crore.

From another IPP, namely, KPCL, having 20 MW installed capacity the Board has envisaged 50.24 MU of power purchase with a variable cost of Rs.25.12 Crore and fixed charge of Rs.16.48 Crore.

The proposed generation and cost from independent power plants (IPPs) for 2007-08 are given below in Table 5.3

Table 5.3 Installed capacity and Energy availability from IPPs

Station	Installed capacity (MW)	Capacity allocated to KSEB (MW)	Target availability (%)	Maximum annual generation capability (MU)	Fuel used
BSES	157	157	80	1100	Naphtha
NTPC-Kayamkulam	360	180	80	1261	Naphtha
KPCL	20	20	80	140	LSHS
Total	**537**	**357**		**2502**	

UI charges

CGS stations, except the Nuclear Stations are operating under the ABT regime. UI charges are applicable based on the frequency when there is a deviation from the scheduled drawal. According to the Board, UI is only a trading mechanism and cannot be treated as a source of power. The Board has also stated that UI will be availed to the maximum advantage by exporting during low frequency by judicious utilization of hydro generation and importing during high frequency by backing down hydro stations. This being the case, Board has included a net UI import of 529.29 MU at an average rate of Rs.2.00/kWh for FY 2007-08.

Transmission charges

The Board has estimated the transmission charges to PGCIL for FY 2007-08 based on the actual billing from April 2006 to September 2006 as Rs.187.60 Crore., which is inclusive of Rs.33.46 Crore. for the transmission system associated with RGCCPP Kayamkulam. Total transmission charges works out to Rs.199.65 Crore including the taxes/incentives of Rs.12.50 Crore.

5.1.3 Deliberations in the State Advisory Committee

Shri. M. Ravindran Nair, Executive Director, CONTIPS, Thiruvananthapuram opined that while calculating average for the immediate past ten years, the inflow for 2002-03 and 2003-04 might not be accounted as the inflow during these years were comparatively very low. If these two draught years are excluded the projection of average inflow could be substantially increased. He suggested that provision for UI exports and UI import might be shown separately. He stated to consider provision for sale of surplus power to other sates.

Shri N.T. Nair, Chief Editor, Executive Knowledge line, stated that provision for power purchase from Non Conventional Sources might be separately shown, in compliance with the relevant regulations. He suggested that sale of surplus power to other states/traders might be considered.

Shri. M.R. Narayanan, President, Chamber of Commerce stated that Kerala lags behind many other states in the share of Non Conventional Energy Sources (NCES), which might be considered in the provision for power purchase. He opined that this would also encourage NCES based private power producers, as envisaged in the Policy and Act.

Shri. E.M. Najeeb, President, Thiruvananthapuram Management Association stated to consider the provision for sale of surplus power out side the state.

Advocate Shri. K.G.M Nair, Founder General Secretary, Consumer Protection Council of Kerala, Mavelikkara suggested to include provision for power purchase from NCES since the NCES based projects could avail substantial subsidy from Govt. of India.

Smt. K.S. Beena, Chief Electrical Inspector suggested to include separate provision for power purchase from Non Conventional Sources in compliance with the relevant regulations.

Shri. J. Mammen, DGM (Commercial), NTPC, Thiruvananthapuram pointed out the mismatch of data in the KSEB filings e.g., Annexure 7(4) and Data Form 3. He stated that the variable cost of RGCCPP, NTPC Kayamkulam shown in the ARR is higher than the actual, which might be checked. He opined that RGCCPP, NTPC Kayamkulam might be given preference in the merit order scheduling considering the 180 MW less costly pooled power allotted to KSEB from other NTPC plants. Instead of selling at comfort charges, KSEB might consider the commercially competitive option of buying power from NTPC with less costly pooled power allocated to Kerala and selling/trading it directly for higher price; and additional advantage by resorting to this option would be 'VAT' revenue for Govt. of Kerala. He stated that such options might be looked into, as the entire ARR has basically a strong bearing only on best monsoon, i.e., optimistic inflow to hydel plants.

Shri. T. Ealngovan, Director Grade Scientist, NATPAC stated that RGCCPP, NTPC, Kayamkulam might review the option of 'waterway' for transporting the fuel requirement so that fuel transportation charges might be reduced, which in turn might reduce the cost of power.

Shri. M. Ravindran Nair, further pointed out that estimation of requirement of energy for FY 08 needs to be rechecked; he cited that considering the commissioning of recent railway electrification project in the State, the consumption of Railways in FY 08 might be much more than that projected by the Board. He commented that harnessing power from the captive generation was not being considered in power purchase, whereas the Act/Policies refer to availing power from captive generation, especially to encourage power purchase from NCES and cogeneration based captive power plants.

Shri. M.R. Narayanan, sought clarification on completion status of the Kudamkulam – Kochi transmission project, as power purchase from Kudumkulam was shown as effective from January 2008.

5.1.4 Stakeholders' views

Kerala HT & EHT Industrial Electricity Consumers' Association suggested that excluding lean inflow years 2002-03 & 2003-04 and accounting for Lower Periyar 97-98 (550 MW), Mudupetty 1999-2000 (3 MW), Kakkad 1999-2000 (150 MW), Peringalkuthu LBE 1999-2000 (75 MW) projects and generation of 350 MU from new projects and carry over storage from 2006-07, there could be an increase of 1503 MU over the proposed hydel generation for 2007-08; i.e, hydel generation would be about 8,437 MU for FY 2007-08 as against 6,934 MU projected by the Board. They stated that this additional generation could be traded as done by KSEB in the previous years and earn revenue in the process. They pointed out that the Board did not project any income from trading of power. In the year 2006-07, the income under this head was around Rs.300 Crore; and considering the UI rate as declared by the Board at Rs.3.00/ kWh revenue from inter-state sales of 1503 MU would amount to Rs.451 Crore which could decrease the revenue gap to that extent.

5.1.5 Commission's Approach

Based on the approved loss of 19.55%, the total energy requirement approved by the Commission for FY 2007-08 is 15315 MU,. The net energy availability including external loss, based on the merit order ranking proposed by the Board is 15715 MU. The total power purchase cost including the cost of internal generation estimated by the Board is Rs.2075.35 Crore. The Commission has analyzed the proposal of the Board and considered the suggestions of the stakeholders and deliberations in the SAC and determined the quantity and cost of power purchase as detailed in the following paragraphs.

The energy requirement approved by the Commission for FY 2007-08 is 15715 MU, including external loss.

Review of the present level of storage, hydel generation schedule, and inflow during the year and the storage maintainable at the beginning of each water year, the Commission is of the opinion that there would be potential for additional internal hydel generation, over and above the generation projected by the Board for the FY 2007-08.

As per the inflow data made available in the ARR from 1997-98 to 2006-07 (water year), the average for immediate past ten water years works out to 6456.49 MU as given below**.**

Water Year, June -May	Inflow in MU
1997-98	5785.64
1998-99	8833.03
1999-00	6289.21
2000-01	6269.28
2001-02	6735.46
2002-03	4268.03
2003-04	4509.49
2004-05	6232.17
2005-06	8519.02
2006-07	7123.55
Total	**64564.88**
Average for the 10 Water-Years	6456.49

And the corresponding monthly average is given below.

Average Inflow, MU, for 10 years, from 1997-98 to 2006-07

Month	MU
June	726.33
Jul	1318.10
Aug	1363.88
Sep	707.56
Oct	852.80
Nov	575.55
Dec	277.87
Jan	142.72
Feb	96.37
Mar	80.45
Apr	98.21
May	216.65
Total	**6456.49**

The Commission provisionally accepts the convention of considering the average of immediate past ten years followed by the Board in arriving at the estimated inflow for ensuing year.

Based on the merit order ranking, the Board has envisaged a net generation of 103.3 MU from BDPP & KDPP in 2007-08 to meet peak load requirement.

The Board has stated that, in addition to LSHS as fuel, diesel is used for initial starting of the machines at BDPP and KDPP; and due to this the variable cost of generation at BDPP is slightly higher than that of KDPP. As per the actual average cost filed by the Board, variable cost of BDPP is about 14%, i.e., 72 paise per Unit more than that of KDPP. ***Considering the higher cost of generation of BDPP compared to that of KDPP, the generation from BDPP shall be minimized according to the incidence of peak load at the proximity of the load centers to these thermal plants. Also, all efforts shall be made to improve the operational efficiency of these thermal plants and optimize the loading and generation from each of these generators with respect to the best fuel efficiency point of these generators for the lowest possible generation cost.***

The Commission approves the drawal of gross availability from the CGS for FY 2007-08. However, the Board has stated that the average daily availability of energy from central generating stations (CGS) in practice used to be more than the normative estimations because the actual PLF realized by CGSs happens to be higher than the norms on PLF fixed by CERC.

The economic drawal of power from the grid through the UI mechanism at competitive rate, consistent with the merit order stack that could contribute to total competitive power purchase cost may be acceptable. Though the volume of UI drawal at competitive rate cannot be projected with any degree of accuracy the Commission considers net import of 523.02 MU at a maximum of about Rs.2 per Unit. However, the Board shall exercise most efficient real time online monitoring of the UI rates and ensure most judicious UI export /import to reflect the best overall cost advantage, maintaining high degree of grid discipline as envisaged in the Grid Code.

The Commission considers the proposed generation of 160.3 MU from BSES and KPCL as proposed by the Board.

As the variable cost of BSES is higher than that of KPCL, efforts shall be made to minimize scheduling of generation from BSES, with due consideration to the power requirement to meet the maximum demand.

In the case of RGCCPP, NTPC, Kayamkulam the Board has shown Rs.98.34 Crore. as fixed charges. The Board has not indicated any generation from RGCCPP, NTPC, Kayakmulam CCGT for FY 2007-08.

Provision for Power Procurement from Renewable Sources by Distribution Licensees

Reference is made to Clause 3 of the Kerala State Electricity Regulatory Commission (Power Procurement from Renewable Sources by Distribution Licensees) Regulations, 2006, which states that:

“Each distribution Licensee shall purchase a quantum of 5% from renewable sources expressed as a percentage of its total consumption during a year. The breakup of 5% shall be 2% from SHP (Small Hydro Power), 2% from wind and 1% from all other sources except Small Hydro and Wind mentioned in 2(f) respectively”

The Board has not filed any proposal to meet the above requirement. However, the Commission seeks to allow provision in the ARR to meet the power procurement from renewable sources as per the above regulation, which may be submitted to the Commission in advance at any time during 2007-08.

The Commission approves the merit order stack-up shown in Table 5.4 based on the current variable cost of generation as submitted by the Board.

Table 5:4: Merit Order ranking

Source	Estimated variable cost for 2007-08 (Rs/kWh)
Hydel	0.03
Talcher - II	0.64
NTPC- RSTPS	1.04
NTPC- RSTPS (New)	1.04
NLC - Exp	1.14
NLC II - Stage-I	1.20
NLC II - Stage II	1.20
MAPS	1.98
Kaiga	3.01
Kaiga Stage-II	3.25
Kudamkulam	3.50
KPCL	5.00
KDPP	5.08
BDPP	5.80
BSES	6.19
Kayamkulam RGCCP	6.57

The Commission approves the provision for the transmission charges of Rs.187.60 Crore and other charges of 69.59 Crore as submitted by the Board for 2007-08, as there are no details available for scrutiny and verification

Based on the above considerations, schedule of power generation and purchase based on the merit order rank is given in Table 5.5

Table 5.6 shows the provision for generation and power purchase approved by the Commission for FY 2007-08

Table 5.5 Generation and Power Purchase as per merit order

Merit Order Rank	Variable Cost, Rs per Unit	Source of Generation/Purchase	Installed Capacity/ CGS Allocation MW	Aux. Consumption, %	PLF, %	Generation (excluding Aux. Consumption) / Purchase (including External Loss), MU
1	0.03	Hydel	1942.6			6899.33
2	0.64	Talcher – II	460	8.5	80	2949.67
3	1.04	NTPC- RSTPS	310	8.5	80	1984.87
4	1.04	NTPC- RSTPS (New)	79	8.5	80	505.61
5	1.14	NLC – Exp	78	10	75	460.19
6	1.20	NLC-II - Stage-1	73	10	75	433.24
7	1.20	NLCII - Stage II	103	10	75	611.92
8	1.98	MAPS	21	10	75	126.05
	2.00	UI				*523.02*
9	3.01	Kaiga	58	10	75	341.35
10	3.25	Kaiga- Stg-II	58	10	75	*341.35
11	3.50	Kudamkulam	160	10	75	233.28
12	5.00	KPCL	20			50.24
13	5.08	KDPP	128			60.74
14	5.80	BDPP	106.6			40.49
15	6.19	BSES	157			110.09
16	6.57	RGCCPP, NTPC, Kayamkulam	360			0.00
	3.00	Wind, KSEB Owned	3			3.00
		Total				**15674.45**
		Less External Loss				**-359.45**
		Total Input to KSEB System				**15315.00**

* Kaiga - Stage II is expected to be in commercial operation by January 2008

Table 5.6: Generation and Power Purchase cost

Source	Energy Produced /Purchased	Auxiliary Consumption	External Loss	Net Energy Input to KSEB T&D system	Fixed Cost	Incentive, Tax, etc.	Total Variable cost	Total Cost
	MU	MU	MU	MU	Rs.Crore	Rs.Crore	Rs.Crore	Rs.Crore
KSEB Internal Generation								
Hydel	6934.00	34.67	0.00	6899.33	0.00	0.00	20.69	** 20.69
Wind - Kanjikode	3.00	0.00	0.00	3.00	0.00	0.00	0.62	0.62
BDPP	41.32	0.83	0.00	40.49	0.00	0.00	23.49	23.49
KDPP	61.98	1.24	0.00	60.74	0.00	0.00	30.86	30.86
Sub total	7040.30	36.74	0.00	7003.56	0.00	0.00	75.66	54.97
Power Purchase								
Talcher - II	2949.67	0.00	132.74	2816.93	227.86	1.41	188.78	418.05
NLC II – Stage I	433.24	0.00	19.50	413.74	10.80	13.49	51.99	76.28
NTPC- RSTPS	1984.87	0.00	89.32	1895.55	64.50	30.66	206.43	301.59
NTPC- RSTPS (New)	505.61	0.00	22.75	482.86	32.54	0.00	52.58	85.12
NLC II - Stage II	611.92		27.54	584.39	24.62	3.92	73.43	101.97
NLC - Exp	460.19	0.00	20.71	439.48	46.68	5.00	52.46	104.14
MAPS	126.05	0.00	5.67	120.38	24.96	2.77	0.00	27.73
Kaiga	341.35	0.00	15.36	325.99	102.75	0.29	0.00	103.04
Kudamkulam	233.28	0.00	10.50	222.78	75.82	0.00		75.82
Kaiga Stage II	341.35		15.36	325.99	110.94			110.94
UI Import	523.02			523.02			104.60	104.60
KPCL	50.24	0.00		50.24	16.48	0.00	25.12	41.60
BSES	110.09	0.00		110.09	102.00	0.00	68.15	170.15
Kayamkulam	0.00	0.00		0.00	98.34	0.00	0.00	98.34

Board in its letter dated 11-6-2007 has informed the decision of the Central Government on reducing the unallocated share from the Central Stations to Kerala. The Board has estimated that there would be a reduction in capacity to the tune of 172MW during off peak hours and 142.2MW during peak hours from the Central Generating Stations in Kerala. This would result in the reduction of about 2.87 MU per day to Kerala. For 2007-08, there would be a reduction of about 980MU. The Board has estimated the additional financial burden of Rs.371.88 Crore as follows:

Generating Stations	Annual reduction in energy (MU)	Energy Cost (Rs./kWh)	Total Energy Cost (Rs.Cr)	Variable cost (Rs/kWh)	Total variable cost (Rs.Cr)	Additional liability (Rs.Cr)
Talcher - II	194.21	1.53	29.71	5.73	111.28	81.57
NLC II Stage I	53.11	1.72	9.13	5.73	30.43	21.3
RPTS	364.39	1.65	60.12	5.73	208.79	148.67
RPTS New	101.37	1.65	16.73	5.73	58.09	41.36
NLC II Stage II	69.90	1.86	13	5.73	40.05	27.05
NLC- Exp	49.46	2.29	11.33	5.73	28.34	17.01
MAPS	24.04	2.15	5.17	5.73	13.77	8.61
Kaiga	103.99	3.20	33.28	5.73	59.59	26.31
	960.47		**178.47**		**550.34**	**371.88**

The Commission has considered additional financial impact due to reduction in CGS allocation. However, it is also true that Kerala has received bumper rainfall this year. Considering the importance of both events, the Commission has decided to accommodate the impact of these events in ARR. Accordingly, internal generation and power purchase has been modified. The Commission has also considered the recent revision of CGS allocation as on 19-05-2007, available from the Southern Regional Load Dispatch Centre web site. Due to the latest revision, the capacity available to Kerala has been reduced further. The revised capacity available, share of KSEB and energy available from the CGS for balance 6 months (October to March) is estimated as follows.

SR ISGS / SR Beneficiary	Total MW	KSEB share MW	Aux.Cons (%)	PLF	Energy available for 6 months
RSTPS St.I & II (U-1 to U-6)	2100	247.63	9%	80%	**783.05**
RSTPS St.III (U-7)	500	61.63	9%	80%	**194.87**
NLC TS-II Stg1	630	63.48	10%	77%	**190.05**
NLC TS-II Stg.2	840	90.61	10%	77%	**271.26**
MAPS	340	17.90	10%	40%	**27.83**
KGS Units 1 & 2	440	38.57	10%	75%	**112.46**
KGS Unit 3	220	20.59	10%	75%	**60.05**
Talcher STPP- Stg.II	2000	427.00	9%	80%	**1,350.28**
NLC TPS-I Exp.	420	68.71	10%	77%	**205.71**
Total		**1036.11**			**3195.55**
Koodamkulam					222.78
Total					**3418.33**

Source: SRLDC

The energy available from central stations would be 3418MU for the balance 6 months. For the hydro availability estimations, storage available as on 1-10-2007 was considered based on the daily system statistics of Kerala Load Dispatch Centre. The net additional energy requirement can be estimated as follows:

1	Storage as on 30-9-2007	3582.68 MU
2	Average generation available for October 07 to May 08 (based on the average inflow)	2287.96 MU
3	Total hydro available upto June 2008 (1+2)	5870.64 MU
4	Margin for June, 2008 (105% of average consumption during 1-15 June,07 @44.5MU/day15 days Generation)	667.50 MU
5	Balance hydro available as on 31-5-2008 (3-4)	5203.14 MU
6	Hydro Generation for April-May,2008 (105% of average Generation in April-May,07 @ 22 MU/Day	1360.30 MU
7	Balance Hydro generation available for October 2007 to March. 2008 (5-6)	3842.84 MU
8	Additional Hydro-new schemes (As per ARR)	350.00 MU
9	Total Hydro available (7-8)	4192.84 MU
10	Energy Demand for October 07 to March 08 (as per ARR)	8019.91 MU
11	Balance Energy Requirement (10-9)	3827.07 MU
12	Central share for October 07 to March 08	3418.33 MU
13	Balance energy Requirement (11-12)	408.74 MU
14	UI available (proportionate share)	261.50 MU
17	Balance energy requirement (13-14)	147.24 MU

Based on the above, the balance requirement of energy on account of reduction in allocation of central generating stations would be 147MU, which can be accommodated from the diesel stations or other generating plants, for which the Commission has considered average generation cost of Rs.6.00/kWh. The additional commitment in internal generation cost would be Rs.88.34 Crore and the change in generation cost would be as follows:

Generation cost approved	Rs.54.96 Crore
Additional cost	Rs.88.34 Crore
Revised generation cost	Rs.143.30 Crore

Difference in power purchase cost:

The Board has estimated that due to the change in reduction central sector allocation in energy cost would be about Rs.178.47 Crore. However, the Board has not taken into consideration the reduction in fixed cost commitments due to the reduction in capacity. As per the estimates given in the ARR, the Commission has reworked the reduction in fixed cost as follows.

	Capacity before revision (MW)	Fixed cost given ARR (Rs. Crore)	Revised Capacity as per SRLDC notification dt. 19-5-2007 (MW)	New Fixed Cost (Rs. Crore)	Change in Fixed Cost (Rs. Crore)
Talcher II	460	227.90	427	211.55	-16.35
NLC II Stage I	73	10.80	63	9.39	-1.41
NTPC-RSTPS	310	64.50	248	51.52	-12.98
NTPC RSTPS (New)	79	32.50	62	25.35	-7.15
NLC II Stage II	103	24.60	91	21.64	-2.96
NLC Expansion	78	46.70	69	41.14	-5.56
Maps	21	25.00	18	21.30	-3.70
Kaiga	58	102.70	39	68.29	-34.41
Kudamkulam	160	81.60	160	81.60	0.00
Kaiga Stage II	58	110.90	21	39.37	-71.53
Total	**1400**	**727.20**	**1196**	**621.29**	**-105.91**

Considering these factors the power purchase cost can be re-estimated as below:

Rs.Crore

1. Original fixed cost as per ARR	727.20
2. Fixed cost as per new allotment (proportionate reduction)	621.29
3. Reduction in fixed cost	105.91
4. Reduction in cost due to reduction of central allocation 990 MU as per KSEB letter dated11-6- 2007	178.47
5. Total reduction in cost due to reduction in share (3+4)	284.38
6. Power purchase approved	2019.03
7. Revised power purchase cost (6-5)	1734.65

Maximum demand

Out of the total 1942.6 MW hydel plants owned and operated by the Board, the average availability is stated as 92%, i.e., 1800 MW and allowing 5% de-rating on account of system parameters such as frequency, voltage, reactive power loading etc. power available to meet peak load from hydel plants would be about 1710 MW.

Out of the 1400 MW CGS allocation, considering auxiliary consumption and 80% load factor, the CGS power available to meet the peak demand would be about 1000 MW.

Thus, own hydel generation plus CGS share available to meet the peak demand would work out to 2710 MW.

The maximum demand expected in FY 07-08 is reported as 2800 MW. With the schedule of generation of 60 MW from BDPP and 40 MW from KDPP the Board may be able to meet the maximum demand. Provision for generation is envisaged from IPPs such as KPCL and BSES to meet contingencies.

Apart from this, the economic drawal through UI mechanism is also considered. The Board has not submitted any further details regarding the maximum demand management strategy.

Month-wise availability and expected peak demand as filed by the Board is shown in Table 5.7.

Table 5.7 Power availably and peak demand

Month & Year	Total Hydro (MW)	Mainte-nance Outage, (MW)	Net hydro capacity available after maintenance (MW)	Net capacity available during peak hours *	Import from CGS (MW)	(BDPP+ KDPP), (MW)	Total capacity available, (MW)	Expected peak demand, (MW)	Surplus/ (Short-age), (MW)
April, 07	1943	158	1785	1695	1000	100	2795	2784	11
May,07	1943	26	1917	1821	1000	100	2921	2782	139
June,07	1943	202	1741	1654	1000	100	2754	2714	41
July,07	1943	244	1699	1614	1000	100	2714	2748	-34
Aug,07	1943	194	1749	1662	1000	100	2762	2770	-9
Sept,07	1943	180	1763	1674	1000	100	2774	2797	-23
Oct, 07	1943	130	1813	1722	1000	100	2822	2793	29
Nov,07	1943	168	1775	1686	1000	100	2786	2785	1
Dec,07	1943	18	1925	1828	1000	100	2928	2830	98
Jan,08	1943	78	1865	1772	1100	100	2972	2773	199
Feb,08	1943	155	1788	1698	1100	100	2898	2798	101
March,07	1943	175	1768	1679	1100	100	2879	2896	-17

*(frequency variation, voltage drop, reactive loading etc) 95% (MW)

5.1.5 Commission's Observations

The Board shall Judiciously allocate the hydro generation so as to minimize the high cost internal generation and purchase of high cost power.

The fuel cost, viz. cost of Naphtha and LSHS as applicable, is the prime factor that contributes to the variable cost of BDPP, KDPP, KPCL, BSES and RGCCPP. The recent declining trend in the price of LSHS may be noted. The merit order stack and provision for generation and purchase shall be reviewed from time-to-time so as to realize overall minimum cost. The opportunity to trade power with the traders and other Licensees/ States may be considered according to the time-to-time market conditions. The Board shall submit separate requests in advance for the Commission's approval with supporting details for such deviations in merit order stack as well as for sale of surplus peak and off-peak power.

The sale of peak and off peak surplus power at competitive rate may be pursed, subjected to availability and other constraints and commitments of consumers within in the state.

The Board may undertake Renovation and Modernization as per well-defined plans featuring necessary cost-benefit analysis, with the approval of the Commission.

Performance evaluation of the generation plants may be conducted taking all the systems and major components such as catchments and storage, water circuit, governors, turbines, generators control, instrumentation and metering, auxiliary consumption etc. into consideration.

The present maintenance practices may be monitored and critically analyzed with a view to identify the scope for improvement and evolve site specific strategy, taking into account the techno-economics and cost benefits into consideration.

The transmission system may be studied to optimize the power transfer from various CGSs and internal generators at various load-flow (export /import) scenarios, load growth, supply side/generation augmentation, identifying the constraint, if any with ongoing/ proposed projects and/or operational strategy thereof.

The Board shall initiate a well-defined maximum demand management and Demand Side Management (DSM) strategy. Utility driven energy efficiency improvement programs and projects should be initiated to promote energy efficient practices, to discourage inefficient electricity usage and to implement energy conservation measures. Reference is also made to Section 5.9 of National Electricity Policy in this regard.

5.2 Interest and Financial Charges

In the ARR for FY 2006-07, the Board has indicated the borrowing for

FY 2005-06 as Rs.1000 Crore. In the present filing, the actual borrowing for FY 2005-06 was shown as Rs.379.44 Crore as given in Table 5.8

Table 5.8 Borrowing and Repayment in FY 06

Rs.Crore.

	Opening Balance	Borrowing		Redemption		Closing Balance	
Item	**Revised**	**ARR**	**Actual**	**ARR**	**Actual**	**ARR**	**Actual (Prov.Accts)**
Loans from GOK	311.41	0.00	66.28	0.00	0.00	330.61	377.69
Bonds	1070.91	0.00	0.00	364.73	378.07	712.57	692.85
Loans from Financial Institutions	3159.01	1000.00	313.16	677.36	829.08	3770.07	2643.09
Total	**4541.33**	**1000.00**	**379.44**	**1042.09**	**1207.15**	**4813.25**	**3713.63**

The Board has contained the borrowing in FY 2005-06 to Rs.379.44 Crore, compared to the level of Rs.1000 Crore proposed in the ARR, which includes Rs.66.28 Crore received from Government of Kerala for APDRP. An amount of Rs.1207.15 Crore was utilized for repayment. The Board has indicated that the borrowing was mainly for capital works. The revised closing balance at the end of FY 2005-06 was Rs.3713.63 Crore compared to Rs.4813.25 Crore shown in the ARR of FY 2005-06.

The Board has revised the estimates for FY 2006-07, compared to that given in the ARR&ERC for FY 2006-07. As per the revised estimates, in FY 2006-07, the Board proposes borrowing and repayment to the tune of Rs.536.49 Crore and Rs.833.67 Crore respectively.

Thus the revised closing balance at the end of FY 2006-07 would be Rs.3416.44 Crore. as shown in Table 5.9.

Table 5.9 Revised Borrowing and repayment plan for FY 07

RS.Crore

	Opening Balance as on 01.04.06		Borrowing in 2006-07		Redemption in 2006-07		Closing Balance as on 31.03.07	
Item	**ARR**	**Revised**	**ARR**	**Revised**	**ARR**	**Revised**	**ARR**	**Revised**
Loans from GOK	338.33	377.69	0.00	59.09	0.00	0.00	338.33	436.78
Existing Bonds	703.20	692.85	0.00	0.00	300.53	300.53	402.67	392.32
Loans from Financial Institutions	2870.30	2643.08	600.00	477.40	447.03	533.14	3023.27	2587.34
Total	**3911.83**	**3713.62**	**600.00**	**536.49**	**747.56**	**833.67**	**3764.27**	**3416.44**

As per the present filing, the borrowing for FY 2007-08 is proposed at Rs.584.59 Crore. The repayment proposed is Rs.536.70 Crore. and the outstanding at the end of FY 2007-08 would be Rs.3464.33 Crore. Interest expenses proposed for the year is Rs.356.28 Crore. as shown in Table 5.10. Table 5.10 Proposed Interest Charges for FY 08

Table 5.10 Proposed Interest Charges for FY 08

Rs.Crore.

Sources	Outstanding as on 1.4.2006	Borrowing	Repayment	Outstanding as on 31.3.2006	Interest
Loans from Government	436.78	50.00	0.00	486.78	45.64
Secured Loans	1223.92	0.00	424.27	799.65	112.64
Unsecured loans	1297.56	0.00	112.43	1185.13	132.71
Planned additional borrowings	458.18	534.59	0.00	992.77	65.29
Total	**3416.44**	**584.59**	**536.70**	**3464.33**	**356.28**

Other items such as interest on security deposit, working capital, rebate to consumers for timely payment, interest on provident fund, other interests, cost of raising finance, guarantee commission and bank charges for FY 2007-08 is estimated at Rs.105.33 Crore. The total provision for interest charges for FY 2007-08 is estimated as Rs.458.61 Crore as shown in Table 5.11.

Table 5.11 Proposed Interest and Financial Charges for FY -08

Sl. No.	Particulars	2007-08 Estimates (Rs.Crore.)
(I)	Interest on outstanding Loans & Bonds	356.28
(II)	Interest on Security Deposit	37.44
(ii)	Other Interest and Finance Charges	
	Interest on borrowings for working capital	5.41
	Rebate to consumers for timely payment	0.78
	Interest on PF	42.11
	Other Interest	0.01
	Cost of raising finance	1.00
	Guarantee Commission	9.30
	Bank Charges	6.28
	Sub total	64.89
	Grand Total (i+ii)	**458.61**

The details of estimated interest on outstanding debts payable in 2007-08 is given in Table 5.12.

Table 5.12: Details of Interest Charges for FY 2007-08

Sl. No.	Particulars	Rate of Interest (%)	Balance at the beginning of the year	Planned borrowing during the year	Planned redemption during the year	Balance out standing at the end of the year	Interest for the year
I	Loans from Government	*11.50-17.50*	436.78	50.00	0.00	486.78	45.64
II	Loans from others secured						
	KSE Bond	*11.50 - 13.00*	73.15	0.00	10.45	62.70	8.62
	Non SLR Bonds	*15.50 - 11.40*	319.17	0.00	198.60	120.57	33.76

contd...

	REC	*7.00 - 11.75*	520.12	0.00	105.10	415.02	49.55
	REC OECF	*16*	8.22	0.00	2.74	5.48	1.31
	LIC	*11*	24.00	0.00	2.00	22.00	2.64
	PFC	*6.00 - 9.00*	88.58	0.00	17.11	71.47	7.22
	Loan from CBI	*7*	120.00	0.00	60.00	60.00	6.48
	EDCK	*7.01*	15.06	0.00	10.01	5.05	0.86
	EDCP	*6.8*	55.62	0.00	18.26	37.36	2.20
	Subtotal		1223.92	0.00	424.27	799.65	112.64
III	Loans from others unsecured						
	IDBI	*9.50 - 13.50*	40.12	0.00	24.75	15.37	10.02
	SIDBI	*12.57- 13.50*	1.47	0.00	1.15	0.32	0.27
	LIC	*11*	94.32	0.00	16.37	77.95	9.57
	REC	*7.00- 11.75*	155.53	0.00	11.59	143.94	14.82
	PFC-STL	*7.5*	0.00	0.00	0.00	0.00	0.00
	Can Fin Homes	*8*	0.00	0.00	0.00	0.00	0.00
	Credit Lyonnais	*5.95*	59.85	0.00	20.16	39.69	3.34
	KDPP	*6.9*	28.30	0.00	9.43	18.87	1.79
	KPFC	*6.25- 12.25*	850.47	0.00	8.98	841.49	88.00
	SBT	*6.5*	0.00	0.00	0.00	0.00	0.00
	STL from UBI	*7.50- 8.00*	67.50	0.00	20.00	47.50	4.90
	STL from Syndicate Bank	*6.5*	0.00	0.00	0.00	0.00	0.00
	Subtotal		1297.56	0.00	112.43	1185.13	132.71

5.2.1 Deliberations in the State Advisory Committee

Shri. M. Sivaraman, Director, Center for Management Development requested clarification on the interest on PF paid by KSEB and on the utilization of PF by KSEB. He pointed out that generally in the payment terms of any trade agreement there used to be a clause on rebate on timely payment; and he suggested to review if KSEB has such clauses in existing PPAs with IPPs, CGS, traders etc.

Shri. M. Ravindran Nair, Executive Director, CONTIPS, Thiruvananthapuram complemented KSEB for the reducing trend of Interest and Finance charge over the years. He suggested that borrowing and interest might be linked with capital works.

Shri. N.T. Nair, Chief Editor, Executive Knowledge line appreciated the KSEB's financial management as far as reducing trend of Interest and Financing charges over the years were concerned. He requested clarification regarding the legality of utilizing PF fund by KSEB.

Shri. E.M. Najeeb, President, Thiruvananthapuram Management Association referred to the point that rate of interest on loan availed from Government is very high and opined that it would be much beneficial to repay and close the same. He suggested to explore the option of repaying and closing all loans bearing high interest rate and as per his view it might be beneficial to even pay pre-closure charges to close these loans especially in the case of loans from REC, GoK, etc.

Shri. M.R. Narayanan, President, Chamber of Commerce suggested that rate of interest on loan availed from Government is very high and it might be repaid and closed. He stated that all high interest loans might be repaid and closed; even by paying pre-closure charges high interest bearing loans from REC, GoK, etc might be considered for early repayment. He suggested reviewing options of utilizing the surplus land, commercial real estate, tourism projects etc. for bringing down the financing cost.

Shri. N.T. Nair, stated that scope for further reduction of interest burden might be pursued by KSEB.

Shri. A.P.M.Abdul Rahim, KSSIA stated that all high interest loans might be repaid, as lower interest loans are available from the market these days. He pointed out that interest is not being paid by KSEB on Security Deposit, as stipulated in the Supply Code and therefore the provision shown in the ARR might be reviewed.

Shri. S.R.K. Rasalam, Chairman, Institution of Engineers (India), Kerala State Chapter appreciated the efforts of KSEB in reducing the Interest and Finance charges over the years and stated that further scope for reduction might be pursued.

Shri. S. Girijathmajan, Additional Secretary, Power, Government of Kerala stated that provision for 4% rebate provided for consumers for advance remittance of energy charges, might not attract the consumers for making upfront advance payment

5.2.2 Commission's Approach

Interest on Loans and Bonds

In 2005-06, the Board executed capital works to the tune of Rs.499.93 Crore and added Rs.625.78 Crore to gross fixed assets. The revised capital expenditure for the year 2006-07 is Rs.782.22 Crore as against Rs.760 Crore proposed in the ARR.

The Board has stated that for 2006-07, provision of Rs 175 Crore and Rs 34.00 Crore has been made under APDRP and the RGGVY schemes respectively, totaling to Rs.209 Crore. Regarding APDRP schemes, fifty percent of the cost is being funded by the Central Government and the balance 50% is met through borrowing (counter part funding) by the Board. The State Govt. funding comprises of 50% as grant (i.e. 25% of the total outlay) and 50% as loan. The RGGVY scheme provides 90% as capital subsidy and the balance 10% as loan at 5% interest per annum.

For the year 2007-08 provision of Rs.75.31 Crore and Rs 126.46 Crore has been made under APDRP and the RGGVY schemes respectively, totaling to Rs.201.77 Crore for capital works in distribution sector.

To accomplish the capital outlay for 2007-08 proposed by the Board as given in Table 5.13, the Board is planning fresh borrowing of Rs.534.59 Crore at an interest rate of 8.75% and Rs.50 Crore at about 10.5% interest from Government.

Table 5.13 Capital outlay for FY 08

Particulars	Amount Rs.Crore
Generation	336.22
Transmission	221.80
Distribution	464.36
Total	**1022.38**

Interest on borrowings for Working Capital

The Board has stated that the present requirement of working capital is met by operating cash Credit, overdraft, and working capital demand loan accounts with major commercial banks. It was stated that the Board could limit the interest on the working capital to Rs.4.92 Crore during 2005-06 as against Rs.13.00 Crore estimated in the ARR. In line with the past trend, it is estimated that interest on borrowings for working capital would be Rs.5.00 Crore in 2006-07 and Rs.5.41 Crore in 2007-08.

Guarantee Commission

The Board has stated that the Government of Kerala vide G.O. dated 20.5.04, has capped the guarantee limit provided to the Board and directed that the Board should negotiate all loans in future without Government guarantee. Since then it is stated that the Board has not availed any new guarantee from Govt. of Kerala. The estimation of the outstanding balance of Government secured loan, as on 31-03-2007 is Rs.1223.92 Crore. and the same at the end of the financial year is Rs.799.65 Crore (with a repayment of Rs.424.27 Crore. during 2007-08). For the existing loan, the amount of guarantee commission payable in 2006-07 would be Rs.13.91 Crore and it would be Rs.9.30 Crore in 2007-08.

Interest on Provident Fund Balance

KSEB has been permitted to retain the PF contributions of the employees and such contributions, after adjusting repayment/loan against PF availed by the employees are treated as source of fund, which are used for general purpose of the Board.

The Board has stated vide letter-dated 14.2.07 that there would be a net increase of about Rs.65 Crore in the PF for 2006-07 and the present rate of interest is 8.5%. The details of PF account is submitted by KSEB is as shown below.

Rs.Crores

FY	Opening Balance	Credit	Debit	Closing Balance
2004-05	342.40	135.09	102.22	375.27
2005-06	375.27	125.91	88.85	412.33

In view of the impending DA arrears payable to the Board employees from 01.01.2005, the board has re-estimated PF interest as Rs.36.37 Crore for 2006-07 and Rs.42.11 Crore for 2007-08.

The Commission provisionally admits the interest and finance charges of Rs.458.61 Crore proposed by the Board for 2007-08.

5.2.3 Commission's Observations

The Commission encourages the Board to execute capital projects for the growth and development of the State's power system, as envisaged in the National Electricity Policy and Act, for which the Board shall submit the DPR, including project management proposal, source of funding and borrowing detail to the Commission.

The Commission appreciates the efforts of the Board in reducing the overall rate of interest on the borrowings over the years.

The Board has not submitted detailed investment plan to the Commission and the target and actual physical and financial progress with outlays for the capital works. Also, the details of loans vis-à-vis the capital projects financed by the same are not filed. In the absence of these details the Commission is not in a position to review the interest and finance charges with respect to the capital projects financed by them. The Commission directs the Board to pursue further the efforts to minimize the interest burden by the closure/swapping of high interest loans.

The Commission refers to the recent hardening trend in interest rates and cautions the Board to exercise close control on working capital requirement and other borrowings. Emphasis on collection of arrears as well as pursuing the payment of subsidy due from Government shall be seriously taken up. Improving the collection efficiency also assume much significance in this aspect. The Commission insists that the details regarding the source of funds used for working capital shall be furnished to the Commission with supporting data on actual lead-lag position

The Commission directs the Board to furnish the proposed plan for further swapping of the loans and debt restructuring, including borrowing plans and details of tie up of funding source for the proposed capital projects, with a view to minimize the debt service

burden and the cost of funding. Considering the widespread complaints from consumers regarding payment of interest on security deposit, it is ordered that provision made in the account will have to be fully utilised.

5.3 Depreciation

The provision for depreciation for FY 2007-08 proposed by the Board in the ARR&ERC is Rs.460.42 Crore, which is based on the rates as per the Electricity (Supply) Act, 1948. The Gross Fixed Assets (GFA) proposed for the beginning of FY 2007-08 is Rs.8075.44 Crore excluding land and rights. The weighted average rate of depreciation is estimated to be 5.7%. The Board stated that it followed the depreciation rates in the Electricity Supply Annual Accounts Rules, 1985 (ESAAR). If the Board was compelled to follow the CERC rate then there would be difference between the Commission's figure and the Board's figure.

5.3.1 Deliberations in the State Advisory Committee

The advisory committee suggested that the CERC norms should be followed for deprecation rates, since Forum of Regulators had already approved the CERC deprecation rates as applicable to distribution Licensees**.**

5.3.2 Stakeholders' comments

The Kerala HT& EHT Industrial Electricity Consumer's Association stated that applying the rates approved by the Commission in its previous Order, the depreciation allowable for 2007-08 should not be more than Rs.279Crore. They had stated that the Board has not mentioned any consumer contribution that forms part of Gross Fixed Assets (GFA), and they commented that based on the principles of costing, depreciation should not be allowed on the consumer contributions forming part of GFA. They pointed out excerpts from the regulations published by Andhra Pradesh Electricity Regulatory Commission (APERC) and Delhi Electricity Regulatory Commission (DERC) stating that depreciation on assets funded by consumer /user contributions or through any capital subsidy/grant etc. should not be allowed in the revenue requirement of the Licensee

5.3.3. Commission's Approach

The Commission upholds the position regarding depreciation rates as explained in the previous Orders, which is quoted below:

"Regarding the depreciation, Para 5.3 (c) of the Tariff Policy published by Ministry of Power, Government of India, dated 6th January 2006 states the following:

"The Central Commission may notify the rates of depreciation in respect of generation and transmission assets. The depreciation rates so notified would also be applicable for distribution with appropriate modification as may be evolved by the Forum of Regulators. The rates of depreciation so notified would be applicable for the purpose of tariffs as well as accounting. "

Reference is made to the letter No: 1 / 2 (6)/2006-Tariff Policy/CERC dated 23rd June 2006 of the Secretariat, CERC, The Forum of Regulators (FOR) which states that the depreciation rates as specified in the CERC (Terms & Conditions of Tariff) Regulations, 2004 may be treated as the rates of depreciation for the purposes under Para 5.3(c) of the Tariff Policy dated 6.1.2006.

The Board has submitted the revised estimations for deprecation vide letter dated 14.2.07 as Rs.272.79 Crore.

The Commission approves a total provision of Rs.260.181 Crore towards depreciation as per the details given in Table 5.14

Table 5.14 Approved Depreciation for FY 2007-08

	2005-06		2006-07			2007-08	
Details of Assets	Balance at the end of the year	Approved Rate, %	Depreciation, Rs.Crore	Additions during the year	Balance at the end of the year	Balance at the beginning of the year	Depreciation, Rs.Crore
Land & Rights	249.10	0.00	0.00	12.86	261.96	261.96	0.00
Buildings	439.98	2.57	11.31	41.99	470.66	470.66	12.10
Hydraulic Works	837.30	1.80	15.07	17.59	839.82	839.82	15.12
Other Civil Works	227.66	2.57	5.85	38.66	260.47	260.47	6.69
Plant & Machinery	2984.47	3.60	107.44	171.33	3048.36	3048.36	109.74
Cable Network etc	2931.72	3.60	105.54	339.39	3165.57	3165.57	113.96
Vehicles	11.82	6.00	0.71	0.33	11.44	11.44	0.69
Furniture and Fixtures	12.17	6.00	0.73	1.49	12.93	12.93	0.78
Office Equipments	17.40	6.00	1.04	2.14	18.50	18.50	1.11
Total	**7711.62**		**247.70**	**625.78**	**8089.70**	**8089.70**	**260.18**

The Commission provisionally admits the deprecation of Rs.260.18 Crore for FY 2007-08.

The Board shall submit the category wise details of fixed asset those are added from consumer /user contributions and capital subsidy/grant.

5.4 Employee Cost

The provision for employee cost made in the ARR for the year 2006-07 was Rs.882.20 Crore, as against the actual of Rs.862.52 Crore incurred in 2005-06. The Commission approved an amount of Rs.823.45 Crore for the year 2006-07. But the actual employee cost during 2006-07 upto July 2006 is Rs.241.53 Crore and the revised estimated amount for the year 2006-07 is Rs.920.00 Crore. It was stated that DA and terminal benefits to the Board employees are allowed periodically in line with the policy of Government of Kerala and hence the Board cannot deny payment of such benefits and as and when Government announces DA increase to its employees, the benefits are extended to the employees in the Board as well. The revised estimate for 2006-07 and the projection for 2007-08 along with the actual for 2005-06 are given in the Table 5.15

The Board has stated that four installments of DA (total 14%) sanctioned to the Central Government employees upto 01.07.2006 are pending to be adopted by Government of Kerala and the Board has made appropriate provision to accommodate the likely increase in DA in the year 2007-08. As a Government policy decision, the leave surrender for 20 days for the employees has been re-established and an additional expenditure of Rs.30 Crore is envisaged under this head, with an assumption that about 90 percent of the employees would en-cash their earned leave.

Table 5.15 Employee Cost

(Rs.Crore)

Particulars	2005-06			2006-07			2007-08
	ARR	Approved by SERC	Actual	ARR	Approved by SERC	Estimated	Projected
Salaries+ DA	416.16	359.36	435.55	452.99	443.70	481.91	508.25
Overtime, Other Allowances, Bonus	19.79	19.79	22.02	24.08	22.00	26.84	27.86
Earned leave Encashment, Medical Reimbursement, Staff Welfare etc	23.32	23.33	30.06	27.74	22.75	33.81	37.00
Terminal Benefits	480.17	443.43	374.89	377.39	335.00	377.44	391.89
Total Employee Cost	939.44	845.91	862.52	882.20	823.45	920.00	965.00

As part of the austerity measures to tide over the financial crisis during 2001, Government of Kerala had put a temporary ban on creation of new posts and fresh recruitments in all government departments for three years. With a view to limiting expenditure, the creation of electrical section/ division offices required in proportion to the increase in the consumer strength was kept pending. In many offices, the consumer strength of unwieldy size has started affecting quality of service adversely to the consumers

The Board has stated that the Government has lifted the ban on recruitment and there would be additional expenditure on account of new recruitments to fill up the essential vacancies so as to undertake works relating to new connections, line extension, voltage improvement, system improvement works to reduce the technical loss and incidence of electrical accidents, conducting energy audit related works, substation construction/maintenance and upkeep/ improve consumer service etc. Subsequent to the filing of the ARR for the year 2006-07 the Board has set up, two Distribution Circles, eight Electrical Divisions, three Sub-Divisions and seven Electrical Sections to render better service to the customers and provision to fill up the vacancies for this purpose has been made in the estimate for 2007-08.

5.4.1 Deliberations in the State Advisory Committee

Shri. E.M. Najeeb, President, Thiruvananthapuram Management Association stated that the efficient use of human resources in the Board might be looked into. He stated that employee cost reduction is as such a difficult task; a detailed human resource management (HRM) audit might be conducted with professional agency/consultants to explore appropriate measures to improve employee productivity, like similar efforts being implemented in many PSUs.

Shri. M. Sivaraman, Director, Center for Management Development suggested for a detailed study regarding manpower and employee cost.

Shri. T. Ealngovan, Director Grade Scientist, NATPAC pointed out at the terminal benefit of employees which is higher than the salary and suggested that the Board might look for alternative methods to meet the cost of terminal benefits.

Shri. M. Ravindran Nair, Executive Director, CONTIPS, Thiruvananthapuram stated that provision for safety training of KSEB employees might be improved, especially that of contract workers/employees, as the accident rate is showing an increasing trend. He opined that instead of cutting down the employee compensation, there might be some provisions made for productivity-linked incentives/payments than blanket salary and allowances hike.

Shri. N.T. Nair, Chief Editor, Executive Knowledge line stated that KSEB might resort to increasing the share of outsourcing services in all possible areas and there is a dire need to improve the safety training of the field technical employees of the Board. He suggested that modernization and technology upgrade might be intensively pursued, for improving the service quality, optimizing manpower utilization and overall performance. He suggested that as employee cost accounts one of the major shares of the ARR, alternative methods might be reviewed in the case of terminal benefits for newly recruited employees; productivity norms might be evolved for the employees and technological substitution for employee productivity improvements might be evaluated.

Shri. K. Viswanatahan, Director, Mitraniketran, stated that accident rate is showing an increasing trend over the years, which might be seriously addressed with appropriate provisions in the ARR such as training, safe working environment, safety gadgets etc.

Shri. M.R. Narayanan, President, Chamber of Commerce stated that cost of terminal benefits of employees is a cause of concern in the ARR, necessitating review of alternative options. He suggested that incentives based on the performance of employees might be implemented rather than hiking the fixed salary.

Shri. M.S. Rawther, General Secretary, K.E.E.C, INTUC stated that the present employee strength is only two-third of the sanctioned strength and outsourcing for critical and technically intensive operations of KSEB are objectionable from efficiency and safety point of view. Therefore reducing the employee strength might not form a sustainable argument. He stated that the subject of terminal benefits might be beyond the purview of this SAC.

Shri. A.P.M. Abdul Rahim, KSSIA stated that KSEB might resort to outsourcing and reducing the employee cost. He cited that much more critical and technically intensive services are being outsourced these days in various organizations, including government undertakings; therefore the argument on technicality and safety would not stand on the way of implementing outsourcing the services in KSEB

Shri. S.R.K. Rasalam, Chairman, Institution of Engineers (India), Kerala State Chapter stated that the special nature of Kerala's labour force might be considered while dealing with the employee cost and training of employees might be taken as vital activity.

5.4.2. Stakeholders' views

The Kerala HT& EHT Industrial Electricity Consumer's Association stated that the Board has not complied with the Commission's directive on employee cost. They cited the comparison of employee cost with some other states. The Association requested to reduce the employee costs further as there is huge scope for improvements.

5.4.3. Commission's Approach

The Commission seeks to approve the provision of employee cost of Rs.965 Crore proposed by the Board for the year 2007-08 as detailed below in Table 5.16. The Board has implemented the wage revision to its employees during this year. The Commission has directed the Board to file the implications of wage revision. However Board could provide the same as vide their submission 23-5-2007 on the proposal of KSEB on 'KSERC DRAFT schedule of Tariff and Terms and Conditions of Retail Supply by KSEB with effect from 1-06-2007. In the submission the Board has stated that the impact due to wage revision for employees would be Rs.125 Crore. However, the Board could not provide the detailed calculations and the impact of revision of salaries of officers. In these circumstances, the Commission allows all inclusive provision of Rs.125 Crore as wage revision as in the ARR filing Board has stated that the employee costs includes part of wage revision. Any increase above this, the Board has to accommodate from the efficiency and performance improvements.

The Commission also considers the implementation of the Standards of Performance regulation and comply with all other regulatory directives by the Board in 2007-08.

Table 5.16 Details of Employee Cost

Sl. No.	Particulars	2005-06	2006-07		2007-08
		Actual	Projected	Estimated	Anticipated
1	Salaries	251.82	243.70	259.53	272.22
2	Overtime/Holiday Wages	0.06	0.15	0.83	0.87
3	DA	183.73	209.29	222.38	236.03
4	Other Allowances	19.27	20.70	23.41	24.26
5	Bonus	2.69	3.23	2.60	2.73
6	Sub Total of 1 to 5	457.57	477.07	508.75	536.11
7	Medical Expenses Reimbursement	2.23	2.20	2.98	3.13
8	Earned Leave Encashment	27.21	25.00	29.93	32.92
9	Payment under Workmen's Compensation	0.39	0.45	0.57	0.60
10	Leave Salary & Pension Contribution paid by the Board to other Departments	0.02	0.00	0.05	0.05
11	Reimbursement of Stamp Duty	0.00	0.01	0.00	0.00
12	Sub Total 7 to 11	29.85	27.66	33.53	36.70
13	Staff Welfare Expenses	0.21	0.08	0.28	0.30
14	Terminal Benefits (Including terminal surrender)	374.89	377.39	377.44	391.89
15	Sub-Total of 13 to 14	375.10	377.47	377.72	392.19
16	Grand Total	862.52	882.20	920.00	965.00
17.	Impact due to revision of salaries				125.00
18	**Total Employee costs**				**1090.00**

5.4.4 Commission's Observations

The share of employee cost in the ARR is an area of concern. The Commission in its previous Orders had raised this issue in unequivocal terms.

As stated in the previous Order, the Board may review and critically evaluate innovative and acceptable alternative options to mitigate the liabilities and burden of terminal benefits, such as transition to a funded system of pension payments for new employees and senior level executives and a system of incentives to encourage migration of existing employees to funded systems.

The Board has not submitted any material on employee productivity and functional deployment of existing and proposed manpower as well as human resource policies to achieve the Standards of Performance stipulated by the Commission and other regulatory measures envisaged in the Act and Policies. The Commission refers to the directives in the previous Orders that an in-house team of the Board may identify the scope for methods of improvement, rationalization of manpower etc. aiming at enhanced employee productivity.

The Commission is of the view that the Board has to attempt in addressing the employee cost on the above lines and apprise the Commission.

5.5 Repair and Maintenance Expenses

The Board has proposed an amount of Rs.101.47 Crore towards Repair and Maintenance (R&M) expenses for FY 2007-08, which forms about 1.24% of the GFA at the beginning of the year.

5.5.1 Deliberations in the State Advisory Committee

Shri. J. Mammen, DGM (Commercial), NTPC, Thiruvananthapuram stated that KSEB might increase the provisions for renovation and modernization and for the improvement of capital assets, in the wake of aging plant and equipments. He suggested that the requirement of meeting the Standards of Performance regulation specified by the Commission might also be considered; and the capitalization of such expenses in tandem with the improvement in asset use efficiency might also be accounted.

5.5.2 Commission's Approach

The Commission has suggested in the past orders that the provision for R&M works should be based on the detailed need based work programme.

Although the normative R&M cost index may provide a broad guideline, each utility could develop the cost index based on the need and requirement and the equipment and site-specific requirements.

The Board has projected an increase of 3% over 2006-07 for the R&M of plant & machinery and for the R&M of line cable networks in FY 08.

The GFA projected by the Board at the beginning of 2007-08 shows an increase of 17.6% than that of 2005-06 and the R&M expenses projected for 2007-08 shows an increase of 8.2% than that of FY 06.

The Commission has no material on record to check the appropriateness of R&M programme, and norms, if any followed by the Board. However, the performance indices that may be published by the Board on implementation of the Standards of Performance regulation, is expected to bring forth the effectiveness of R&M programme being practiced by the Board.

Considering the importance of the R&M works and the need to implement the Standards of Performance regulation published by the Commission, the Commission would allow the provision of Rs.101.47 Crore for 2007-08 as proposed by the Board

5.5.3 Commission's Observations

The Commission directs that the Board shall from now on submit detailed function wise physical and financial R&M programme for the ensuing year along with ARR.

5.6 Administration and General Expenses

The Board has proposed an amount of Rs.125.63 Crore for FY 2007-08 towards Administration and General (A&G) expenses, inclusive of Rs.71.16 Crore as provision for the electricity duty payable under Section 3(1) of Kerala Electricity Duty Act, 1963.

The Board has stated that in agreement with the inflationary trend, an overall annual increase in expenditure by about 5% is anticipated on items like Rent, Rate, Taxes, and Electricity charges, Water Charges, Entertainment & Freight, Telephone & Internet, Conveyance Charges and Printing and Stationary in 2006-07 and a nominal increase of 2.5% is anticipated for 2007-08. The Board expects increase in expenditure on telephone and internet charges as the sections are to be linked to the head quarters for transmission of data & information. The Board also expects an increase in expenditure on computer stationery.

The following factors are also reported to contribute to the increase in A&G expenses for the ensuing year:

- training of officers and staff
- rent and other infrastructure to the newly formed offices
- expansion of Trouble Call management units in other cities/towns
- cost of freight, traveling of personnel and purchase related administrative activities related to giving electricity connections to meet the target of electricity on demand to all

The details of A&G expenses for the previous, current and ensuing year as filed by the Board is given below in Table 5. 17

Table 5.17 A & G Expense filed by the Board

Year	2005-06, Provisional	2006-07, Revised	2007-08, Estimated.
Elec. Duty, u/s 3(1) of KED Act	63.26	69.76	71.16
Other Expenses	50.58	53.11	54.47
Total	113.84	122.87	125.63
% Increase of Elec. duty. over the previous year		10.30	2.00
% Increase of other exp. over the previous year		5.00	2.60
% Increase of total A&G expenses over the previous year		7.90	2.00

5.6.1 Stakeholders' views

The Kerala HT& EHT Industrial Electricity Consumer's Association stated that the tariff regulations of the Commission require O&M expenses to be projected based on inflation indices. The Board has filed for A&G expenses of Rs 126 Crore for FY 08, which is an increase of 40% from the previous year's approvals. Considering an inflation rate of 5% the A&G expense should be approved at Rs 110 Crore.

5.6.2 Commission's Approach

The Commission considers the A&G expenses as one of the controllable expenses of the Board . The telephone charges *etc.* projected could be minimized as telephone tariff is showing a reducing trend and mobile phones and internet/email communication usage has been increasing. Improving the performance of Consumer Redressel Forum and Customer Relations could control the legal charges of the Board, so that number of litigations can be substantially minimized. The expenses on conveyance and vehicle hire charges, printing & stationery and miscellaneous expenses shall be controlled.

Reference is made to the Sub Section 3 of Section 3 ("Levy of Electricity Duty on certain sales of energy by licensees") of the Kerala Electricity duty act, 1963 (Act 23 of 1963) states that:

"The duty under this section on the sales of energy should be borne by the licensee and shall not be passed on to the consumer".

Therefore the Commission is not in a position to admit the Duty under Section 3(1) as a pass through in the ARR for 2007-08. The admissible provision towards A&G expenses would be as shown in Table 5.18.

5.7 Other Expenses

Other expenses consist of prior period credits/debits and other debits. The Board has made a provision of Rs.87.00 Crore towards net prior period charges as shown in Table 5.19.
The item "Other debits" includes expenses relating to research and development and bad and doubtful debts and other write offs. The Board has made a provision of Rs.140.00 Crore towards other debits for FY 2007-08, out of which Rs.115.78 Crore has been considered under the provision of bad and doubtful debts as shown in Table 5.20

The Board in its clarification letter dated 14.2.07 has stated that the expenses under prior period charges were for rectifying several audit objections raised by Accounted General and these amounts have to be considered on account of the fact that claims pertaining to earlier years would have to be settled to clear the remarks of Accountant General. The Board stated that provisions relating to power purchase cost is also accounted as prior period charges on account of provisional bills raised by PSUs, while tariff orders remain pending with

CERC. Regarding prior period charges of employee cost, the Board stated that provisions has to be made for pending DA installment declared by the Central Government; and there are rectifications to be effected on employee cost based on audit observations.

Table 5.19 Proposed prior Period Credit and Charges

Particulars	**2005-06**	**2006-07**	**2007-08**	
I Income relating to previous Year	Actual	ARR	Revised	Estimate
1. Receipt from consumers	151.73	120.00	138.08	140.54
2. Excess provision for Depreciation in prior period	0.00	1.00	1.83	1.85
3. Excess interest & Finance charges	0.00	8.00	18.31	18.50
4. Other excess provision	25.13	0.50	0.89	0.89
5. Other income relating to prior period	201.17	100.00	54.82	56.52
Total Income	**378.03**	**229.50**	**213.93**	**218.30**
II Expenditure relating to previous years				
1. Short provision for purchase	170.34	85.50	82.41	83.26
2. Fuel related expenses relating to prior period	0.00	0.50	0.92	0.93
3. Operating expenses relating to prior period	0.71	8.00	16.48	16.65
4. Employee cost relating to prior period	70.54	55.00	82.72	83.58
5. Depreciation under provided in prior period	0.00	10.00	18.31	18.50
6. Interest & Finance charges	215.32	8.00	43.64	44.09
7. Other charges relating to previous years	3.13	150.00	55.56	58.29
Total Expenditure	**460.04**	**317.00**	**300.04**	**305.30**
Net prior period Credit/charges (I-II)	**-82.01**	**-87.50**	**-86.11**	**-87.00**

Table 5.20 Other debits

Sl. No.	**Particulars**	**Actual (2005-06)**	**Estimation (2006-07)**	**Projected (2007-08)**
1	Research and Development Expenses	0.11	0.27	0.59
2	Provision for Bad and Doubtful debts	129.57	107.71	115.78
3	Miscellaneous Losses and write-offs	2.61	30.92	23.63
	Total	**132.29**	**138.90**	**140.00**

5.7.1 Stakeholders' views

The Kerala HT& EHT Industrial Electricity Consumer's Association stated that these expenses comprise of prior period debits and other debits and are not the prime expenditure required for any business. They stated that the Board has not submitted the data on historical analysis of existing debts, reasons for writing off debts or any norms / benchmarks evolved on actual position, categorization of receivables etc. as directed by the Commission in the previous orders. Hence, the Association requested the Commission to stick to the last revised levels of Rs 109 Crore.

5.7.2 Commission's Approach

As indicated in the previous Order, the Commission does not agree to charge the consumers on account of an expense, which is not incurred. In the previous order (2005-06), the Commission has stated that ***'ideally Prior period credits/charges should cancel out each other. The provisions made by the Board under various income and expenses under prior period are not convincing as all the reasonable expenses are provided under various heads and passed on to the consumers. The Commission hereby directs that while providing estimates, the Board should take enough care to present the case in a transparent manner, the absence of which may result in outright rejection of the claims"*. In the previous ARR Order for 2006-07, the Commission has allowed only Rs.43 Crore. Considering these factors, the Commission is constrained to allow only Rs.50 Crores under this head.**

Regarding other debits, objectors have raised the issue that allowing bad debts would reduce the efficiency of the Board to collect the accumulated receivables. The Commission has taken a view in the previous orders that bad debt is to be allowed only if the receivables become unrecoverable beyond doubt, and the same is to be removed from the consumer is accounts. In the previous ARR the Commission had given a provision of Rs.49 Crores only under this head. Hence a provision of Rs.50 Crores is allowed under this head.

5.8 Return on Equity

The Commission had allowed 14% of Rs 1553 Crore as Return on Equity (RoE) which works out to Rs 217.42 Crore for the year 2006-07.The Board requests that the same principle may be followed for the year 2007-08 and Rs 217.42 Crore may be allowed as return on equity.

5.9 Aggregate Revenue Requirement for FY 2007-08

Based on the above discussion on the individual items, the Commission approves Rs.4074.22 Crore as the Aggregate Revenue Requirement of the Board for FY 2007-08 as per details given in Table 5.21, as against Rs.4545.02 Crore proposed by the Board.

Table 5.21: Approved ARR for FY 08

Items	FY 2007-08 (Rs.Crore)	
	Submitted in ARR by KSEB,	Approved by KSERC
Generation Of Power	54.96	143.30
Purchase of power	2020.39	1734.65
Interest & Finance Charges	458.61	458.61
Depreciation	460.42	260.18
Employee Cost	965.00	1090.00
Repair & Maintenance	101.47	101.47
Administration & General Expenses	125.63	54.47
Other Expenses	227.00	100.00
Gross Expenditure (A)	4413.48	3942.68
Less: Expenses Capitalized	37.63	37.63
Less: Interest Capitalized	48.25	48.25
Net Expenditure (B)	4327.60	3856.80
Return on Equity(C)	217.42	217.42
ARR (D) = (B) + (C)	4545.02	4074.22

REVENUE RECEIPTS

6.1 Income from Tariff

The Board has estimated the revenue from tariff for FY 2007-08 based on the tariff in vogue. The Board has stated that while projecting the expected revenue from charges (ERC) for 2007-08, subsidy of 20 paise per unit for LT I (a) Domestic, LT VII (A)&LT VII (B) commercial category of consumers as per the Commission's Order dated January 5, 2006 has been also taken into account.

The Board *vide* letter dated 14.2.07 stated that as per KSERC Order dated 5.1.06, the Board has been collecting the tariff of domestic and commercial category of consumers after allowing a subsidy of 20 paise per unit from Domestic LT–1(a) and commercial LT-VII (A) and LT - VII (B) consumers. The Board further stated that the Government vide GO (Ms) 33/06/PD dated 16.12.06 had declined to release any subsidy on this account and the Board would continue to allow the said subsidy until the Commission issues further orders to stall the same.

The revenue was projected based on the slab-wise consumption, number of consumers and rate per unit in each slab. The detail of revenue estimation by the Board for FY 2007-08 is shown below.

Table 6.1 Proposed Revenue from existing Tariff

Category	Billed Demand in MW	Billed Energy in MU	Present Rate in Rs/Unit	Revenue (in Rs.Crore)
LT				
LT-I (a)		**5685.61**		**972.24**
0-40		2780.96	0.95	264.19
41-80		1264.61	1.70	214.98
81-120		714.81	2.20	157.26
121-150		323.85	2.80	90.68
151-200		271.54	3.45	93.68
201-300		179.43	4.10	73.56
301-500		72.24	5.10	36.84
Above 500		78.18	5.25	41.05
LT-I (b)		**1.00**		**0.26**
0-40		0.38	1.55	0.06
41-80		0.26	2.40	0.06
81-120		0.17	2.80	0.05
121-150		0.06	3.45	0.02
151-200		0.05	4.05	0.02
201-300		0.04	5.05	0.02
Above 300		0.04	6.30	0.02
LT-II Colony		**5.39**	**5.65**	**3.04**
Sub Total		**5692.00**	**1.71**	**975.54**

LT-VII (c)	**104.85**	**60.38**		**40.02**
Demand Charges			80.00	10.07
Upto 1000 Units		37.84	4.40	16.65
Above 1000 Units		22.55	5.90	13.30
Commercial (incl. Non-Dom)	**1447.30**	**1390.00**	**6.67**	**927.52**
Public Lighting		**252.00**	**1.83**	**46.18**
HT I Industrial	**395.00**	**1563.00**	**3.8**	**596.88**
Demand Charges			270.00	127.98
Energy Charges			3.00	468.90
HT II	**50.00**	**138.00**	**4.30**	**59.40**
Demand Charges			300.00	18.00
Energy Charges			3.00	41.40
HT IIB	**0.23**	**0.10**		**0.07**
Demand Charges			175.00	0.05
Energy Charges			1.75	0.02
HT III	**10.50**	**11.00**	**3.19**	**3.51**
Demand Charges			165.00	2.08
Energy Charges			1.30	1.43
HT IV	**125.00**	**464.00**	**4.33**	**200.98**
Demand Charges			350.00	52.50
Energy Charges			3.20	148.48
HT Total	**580.73**	**2176.10**	**4.0**	**860.83**
EXTRA HIGH TENSION				
EHT-I	**72.00**	**328.00**	**3.58**	**117.58**
Demand Charges			260.00	22.46
Energy Charges			2.90	95.12
EHT-II	**168.00**	**756.00**	**3.55**	**268.63**
Demand Charges			245.00	49.39
Energy Charges			2.90	219.24
EHT Total	**240.00**	**1084.00**	**3.56**	**386.22**
Railway Traction	**30.00**	**74.00**	**3.37**	**24.93**
Demand Charges			230.00	8.28
Energy Charges			2.25	16.65

Bulk supply	**74.50**	**351.00**	**2.92**	**102.48**
Grid-I-11KV	**14.00**	**69.00**	**2.77**	**19.12**
Demand Charges			255.00	4.28
Energy Charges			2.15	14.84
Grid-I-66KV	**19.00**	**102.00**	**2.59**	**26.38**
Demand Charges			240.00	5.47
Energy Charges			2.05	20.91
Grid-I-110KV	**5.50**	**27.00**	**2.60**	**7.02**
Demand Charges			225.00	1.49
Energy Charges			2.05	5.54
Grid-2-11KV	**12.00**	**42.00**		**15.22**
Demand Charges			255.00	3.67
Energy Charges			2.75	11.55
Grid-2-110KV	**24.00**	**111.00**	**3.13**	**34.74**
Demand Charges			225.00	6.48
Energy Charges			2.60	28.26
Total		**12286.10**	**3.05**	**3753.07**
NPG		**8.00**		
Grand Total		**12294.10**		**3753.07**

The total revenue from tariffs for FY 2007-08 is estimated as Rs.3753.07 Crore. The category wise realization and percentage consumption and percentage revenue is tabulated in Table 6.2. The domestic category, which consumes about 46.3 % of the total energy sales, contributes only 25.99% of the revenue. The average tariff for commercial and non-domestic category is about Rs.6.67/kWh. The LT category as a whole contributes about 63.38% of total revenue and 69.96% of total energy sales. HT&EHT contributes about 33.23% of total revenue and consumes about 26.52% of total energy sale. The Bulk Supply consumers/Licensees contribute less than 3% of the revenue and the energy sales.

Table 6.2 Category wise realization, consumption and revenue

Consumer Category	Sale of energy in MU	Revenue from tariff (Rs.in Crore)	Average Realization Rs/kWh	% to total Consumpti-on	% to total Revenue
Domestic	5692	975.54	1.71	46.30	25.99
Commercial	1390	927.52	6.67	11.31	24.71
Public Lighting	252	46.18	1.83	2.05	1.23
Irrigation & Dewatering	237	21.17	0.89	1.93	0.56
Industrial LT	1030	408.19	3.96	8.38	10.88
NPG	8	0.00	0.00	0.07	0.00
HT & EHT	3260.10	1247.05	3.83	26.52	33.23
Railway Traction	74	24.93	3.37	0.60	0.66
Bulk Supply	351	102.48	2.92	2.86	2.73
Total	**12294**	**3753.07**	**3.05**	**100.00**	**100.00**

6.1.2 Deliberations in the State Advisory Committee

Advisory Committee members Shri. T. Ealngovan and Shri. N.T. Nair pointed out that the Board has not projected any provision for sale of surplus power to other states/traders during 2007-08.

Shri. N.T. Nair, Chief Editor, Executive Knowledge line stated that considering the trend in the past years, income from sale of surplus power might be considered.

Shri. M. Ravindran Nair, Executive Director, CONTIPS, Thiruvananthapuram stated that provision for surplus sales to other states might be considered by the Board.

Shri. J. Mammen, DGM (Commercial), NTPC, Thiruvananthapuram suggested that KSEB might consider commercially competitive option of buying power from NTPC with less costly pooled power allocated to Kerala and selling/trading it directly for higher price, instead of selling at comfort charges of 48 paise per unit. He pointed out that this option might also fetch “VAT’ to Govt. of Kerala.

6.1.3 Commission’s Approach

Based on the available information, the Commission has endeavored to estimate the revenue from tariffs. As noted in Chapter II the Commission re-estimated the sales for FY 2007-08 and considered the impact of the same in the revenue. Further, the Commission has considered the full impact of revenue from tariff for commercial and domestic consumers for the purpose of ERC. As per section 65 of the Act the Order of the Commission, the reduction is effective only if government pays the subsidy upfront. If the government is unable to provide the subsidy the order is automatically not operative.

6.1.4 Revenue from surplus sales:

As mentioned in the previous sections the Kerala state has received heavy rainfall during this year. The Board has also taken effective measures to export surplus power available in the state. The Commission has thus given sanction for sale of surplus power available from RGCCP, Kayamkulam and BSES during April and May. Further Board is also exporting power taking the advantage of the system load during off peak hours. As on 1-10-2007, the Board has sold surplus power on displacement basis through NVVN and PTC about 442 MU. Based on the approved export price, the revenue from surplus power works out to Rs.144.04 Crore. External sale as on 1-10-2007 only has been considered while taking the surplus power available. It worth mention here that, the revenue from surplus sale would be higher for the whole year. ARR SERC

Table 6.3: Approved Revenue from existing Tariff

	ARR		SERC	
Consumer Category	**Sales (MU)**	**Revenue (Rs.in Crore)**	**Sales (MU)**	**Revenue (Rs.in Crore)**
Domestic	5692	975.54	5692	1089.27
Commercial	1390	927.52	1402	954.47
Public Lighting	252	46.18	252	46.18
Irrigation & Dewatering	237	21.17	237	21.17
Industrial LT	1030	408.19	1040	411.52
NPG	8	0	8	0
HT & EHT	3260	1247.05	3260	1247.05
Railway Traction	74	24.93	78	25.93
Bulk Supply	351	102.48	351	102.48
Total from retail sales	12294	3753.07	13321	3898.07
Sale of power to other States	0	0	442	144.04
Total	**12294**	**3753.07**	**12621**	**4042.11**

6.1.5 Commission's Observations

The Commission directs the Board to submit the current demand and total collection separately and submit the consumer category wise collection efficiency.

The Board ha s to submit along with the ARR&ERC, complete details on the revenue estimation, detailing on the methodology, sampling, etc., including details of collection efficiency and arrears in a comprehensive manner.

6.2 Non-Tariff income

Board has estimated the non-tariff income for FY 2007-08 as Rs.361.84 Crore. Major components under this head are meter rent, service rental, wheeling charges, rebates and miscellaneous receipts/charges. The details are given below in Table 6.4

The revenue from meter rent collected during FY 2005-06 was Rs.125.86 Crore. Considering the number of consumers as on 1.4.06 as 82.95 Lakh, the average rent per consumer per month works out to be of Rs.15.18.

Table 6.4: Proposed non-Tariff income

Particulars	2005-06 Actual (Rs.Crore.)	2006-07 Revised Estimate (Rs.Crore.)	2007-08 Projected (Rs.Crore.)
Meter Rent/Service Line Rental	125.86	126.00	138.60
Rebate Received	56.10	47.68	56.22
Miscellaneous Charges	89.50	64.58	68.26
Wheeling Charges	7.46	27.30	30.00
Miscellaneous Receipts	28.97	29.14	32.09
Others	17.55	34.86	36.67
Total	**325.44**	**329.56**	**361.84**

6.2.1 Commission's Approach

The Commission seeks to approve the provision of Rs.361.84 Crore proposed by the Board as total revenue from non-tariff income for FY 2007-08

6.3 Total Revenue receipts

Based on the foregoing discussion the Commission approves the following revenue receipts from existing tariffs and other income for the year FY 2007-08:

	ARR (Rs.Crore.)	Approved by KSERC (Rs.Crore.)
Revenue from existing tariffs	3753.07	4042.11
Revenue from non-tariff income	361.84	361.84
Total Revenue Receipts	**4114.91**	**4403.95**

6.4 Subsidy receivable from the Government

The Commission in the first order on ARR for FY 2003-04 recommended to the Government to provide subsidy to the tune of Rs.556 Crore to avoid tariff hike and the Government has accepted the same and paid the subsidy. Regarding the revenue gap of Rs.296 Crore. in the Commission's Order on ARR for 2004-05, the Commission recommended to the Government to exempt the Board from payment of electricity duty amounting Rs.200 Crore (that is, exempt the Board from payment of electricity duty under Section 3(1) of Kerala Electricity Duty (KED) Act amounting Rs.34 Crore and allow the duty amounting to Rs.166 Crore collected under Section 4 of KED Act as Grant to the Board); in bridging the balance amount of Rs.96 Crore, the Commission sought the decision of government. The approved revenue gap for FY 2005-06 was Rs.51 .31 Crore only.

After admitting the ARR&ERC of the Board for FY 2006-07, the Commission forwarded the copy of the ARR&ERC *vide* letter No. KSERC/TP-13/ARR&ERC06-07/05/1380 dated 16.12.2005 to the Government for its comments. The Government *vide* letter No. 10990/C1/05/PD dated 16.1.06 has stated as follows:

"*Please refer the letter cited and also the petition field by KSEB for approval of ARR&ERC of the KSEB for 2006-07. KSEB has projected a Revenue Gap of Rs.302.78 Crore for 2006-07 in the ARR&ERC. The Board has requested for the Government decision to subsidize this gap so that tariff can be retained at the present level. In this regard I am directed to request that Commission may consider the KSEB's proposal. Once the Commission arrives at the Revenue Gap, Government will decide the modalities for bridging the gap.*"

Paragraph No. 15 of the Board's affidavit on ARR&ERC petition for 2006-07 stated that the Board was separately writing to the Government proposing /seeking ways to bridge the revenue gap for the year 2006-07 and separate petition proposing ways to bridge the gap with the concurrence of the State Government would be submitted to the Commission in due course. Accordingly, the Commission *vide* letter No.KSERC/TP-13/2005/12 dated January 2, 2006 directed the Board to submit the proposal to bridge the revenue gap. In response to this, the Board *vide* letter No.KSEB/TRAC/TF-04/P/20 dated 17.2.2006 made reference to the letter cited above from the Government of Kerala *viz*., letter No. 10990/C1/05/PD dated and stated that once the Commission arrived at the revenue gap, the Government would decide the modalities for bridging the gap and the Board might be permitted to submit the proposal for bridging the gap subsequently.

The Commission held a discussion on "subsidies and revenue gap" with the Member (Finance) and Finance Advisor of the Board on 7.12.2005. Based on the points emerged during the discussion, the Commission communicated the following *vide* letter No. No.KSERC/TP2/2005/1356 dated 7.12.2005 to the Finance (PUA) Department and the Department of Power, Govt. of Kerala, with copy to, Kerala State Electricity Board:

"*Commission is of the view that, the revenue gap of the Board shall be approved by the Commission after prudence check of the "truing up accounts" that would be submitted by the Board for FY 2003 -04 and FY 2004-05 and FY 2005-06. The Government may accept the revenue gap so firmed up by the Commission in releasing the subsidy due to the Board. Since Kerala State Electricity Regulatory Commission has started functioning with effect from 29th November 2002, the Commission suggests that the subsidy amount outstanding as on 31.3.2003, may be sorted out between the Government and the Board and inform the Commission accordingly.*

Considering the substantial implication of the amount shown as outstanding towards subsidy receivable to the Board, whose performance is being regulated in accordance with the Electricity Act 2003, the matter of netting off the subsidy as on 31.3.2005 may be settled at the earliest, preferably within the FY 2005-06."

In the present filing also the Board has stated that:

"*The Board is writing to the Government suggesting ways to bridge the revenue gap for the year 2007-08. Hence the Board may be permitted to submit the proposal for adjustment of the revenue gap after getting the concurrence of the Government of Kerala.*"

Board vide letter No.KSEB/TRAC/TF-05/EE-II350 dated 14-8-2007 has forwarded a letter No. 373/c1/07/PD dated 23-6-2007 from the Government of Kerala, which has stated as follows:

"KSEB vide letter under reference (2) had requested the government for an appropriate decision on bridging the revenue gap for the year 2007-08 from among the following three possible options

(i) Grant of subsidy by the Government
(ii) Keep the revenue gap as regulatory asset
(iii) Bridge the revenue gap through tariff revision

The government vide letter under reference 3 has communicated that it is premature for the government to take a decision on bridging the revenue gap till the Hon. Commission finalise the revenue gap. Also Government has directed KSEB to request the Hon'ble Commission to take a decision on the revenue gap for the year 2007-08. It was also communicated that, once the Commission firm up the revenue gap, it is upto the Commission to decide how KSEB should bridge the gap for the year 2007-08 (i) by increase in tariff or (ii) by government providing subvention or subsidy or (iii) allowing gap to remain and treating it as regulatory asset later. The State Government could then decide whether subsidy should be given and to what extent."

As per the balance sheet shown in the ARR filing the subsidy receivable from the Government is Rs.4485.35 Crore in FY 2005-06 (Actual), Rs.4715.54 Crore (Revised Estimate) in FY 2006-07 and Rs.5145.65 Crore (Estimated) in FY 2007-08.

The Board has stated in its clarification dated 14.2.07 that for netting off dues with the Government of Kerala a high power committee has been constituted by the Government of Kerala and the final decision is awaited in this regard.

Chapter VII

COMMISSION'S ORDER ON ARR AND ERC FOR 2007-08

7.1 Aggregate Revenue Requirement

As discussed in the Chapter V, the Commission seeks to approve an Aggregate Revenue Requirement of Rs.4074.22 Crore for the FY 2007-08 against the Rs.4545.02 Crore proposed by the Board.

Table 7.1 Summary of Approved ARR for FY 2007-08

Items	2005-06	2006-07	2007-08	
	(Actual)	KSERC (Order)	(ARR)	KSERC (Order)
	Rs.Crore.	Rs.Crore.	Rs.Crore.	Rs.Crore.
Generation Of Power	51.30	43.09	54.96	143.30
Purchase of power	1533.93	1646.02	2020.39	1734.65
Interest & Finance Charges	565.82	513.64	458.61	458.61
Depreciation	392.65	247.43	460.42	260.18
Employee Cost	862.52	823.45	965.00	1090.00
Repair & Maintenance	93.82	90.00	101.47	101.47
A&G Expenses	113.85	105.00	125.63	54.47
Other Expenses	214.30	91.78	227.00	100.00
Gross Expenditure (A)	3828.18	3560.41	4413.48	3942.68
Less: Expenses Capitalized	48.50	43.90	37.63	37.63
Less: Interest Capitalized	43.61	53.50	48.25	48.25
Net Expenditure (B)	3736.06	3463.01	4327.60	3856.80
Return on Equity (C)	101.26	217.42	217.42	217.42
ARR (D) = (B) + (C)	3837.32	3680.43	4545.02	4074.22

7.2 Expected Revenue from Charges

As discussed in the Chapter VI, the approved Expected Revenue from Tariffs including non-tariff income for FY 2007-08 is Rs.4403.95 as against the proposed amount of Rs.4114.91 Crore.

	ARR (Rs.Crore.)	Approved by KSERC (Rs.Crore.)
Revenue from existing tariffs	3753.07	4042.11
Revenue from non-tariff income	361.84	361.84
Total Revenue Receipts	**4114.91**	**4403.95**

7.3 Revenue Gap/Surplus

Considering the total revenue requirements and total revenue from sale of power and other income the net revenue surplus for the year would be Rs.329.72 Crore. The Commission in its order dated 24th November, 2007 on True up petition No. TP 20 of 2006 and TP 22 of 2006 of the Board has stated that the revenue deficit of Rs. 360.06 Crore would be adjusted in the ARR for 2007-08. Considering the impact of the same the final revenue gap/surplus is arrived as follows.

	Rs.Crore
Total revenue requirement for 2007-08	4074.22
Less Other income	(361.84)
Net ARR	3712.38
Revenue from Sale of power	4042.11
Revenue Surplus/(Gap)	329.72
Impact of True up for 2003-04 & 2004-05	(360.06)
Net Surplus/(Gap)	**(30.34)**

7.4 Commission's Order

On the above basis, the Commission hereby approves a Net Aggregate Revenue Requirement (Gross ARR less Revenue from non-tariff income) of Rs.3712.38 Crore and total Expected revenue receipts from sale of power of Rs.4042.11 Crore as against Rs.4183.18 Crore and Rs.3753.07 Crore respectively projected by the Kerala State Electricity Board. Thus, there would be a surplus of Rs.329.72 Crore as against a revenue gap Rs.430.11 Crore projected by the Board for the year FY 2007-08. The surplus arrived at would be adjusted against the Truing up for 2003-04 and 2004-05, which would result in net revenue gap of Rs. 30.34 Crores. Considering this revenue gap and the Tariff Revision proposal submitted by the Board vide letter No. KSEB/TRAC/Tariff-Rev-07-08/P/271 dated 4th July, 2007, the Commission seeks to make changes in the existing tariff as detailed in the ensuing chapters.

CHAPTER VIII

TARIFF PETITION

8.1 Brief history

KSEB vide letter No.KSEB/TRAC/TF-05/P/ dated 11-12-2006, requested the Commission to allow KSEB to submit the proposals for revision and rationalization of tariff after consultation with the Government. The Commission in its letter (No. KSERC/TP-23/ ARR&ERC07-08/2006/ 902 dated 12-12-2006 and No. KSERC/TP-23/ARR&ERC 07-08/2006/192 dated 23-3-2007) instructed KSEB to submit the proposals for bridging the revenue gap. However, KSEB did not oblige to these reminders. In the absence of any reply from KSEB on this matter, and considering the urgency of finalization of ARR & ERC, the Commission in its meeting dated 20-04-2007 decided to publish a draft tariff schedule to be made effective from 1-6-2007 and invited comments from stakeholders and public to reach the Commission on or before 15-5-2007. The last date of submission of comments was extended till 23-5-2007. The Commission also forwarded the draft tariff schedule to the Government vide letter dated 23-4-2007. In the meanwhile, on 23-5-2007, in response to the Commission's Draft schedule of tariff, KSEB filed their proposals. Since, the proposal of the Board contained major changes in the tariff and categorization, the Commission in its meeting dated 28-5-2007 decided to treat the proposal of KSEB as a tariff revision petition and directed the Board to follow the provisions under KSERC (Tariff) Regulations, 2003. In response to this, the Board filed necessary details vide letter No KSEB/TRAC/Tariff-Rev-07-08/P/ 271 dated 4-07-2007 as required under KSERC (tariff) Regulations, 2003. The Commission admitted the proposal of KSEB as Tariff Petition No. TP-30/2007 vide its proceedings No KSERC/ III/TP-30/2007 dated 6-07-2007 and communicated to KSEB its decision to accept the proposal of the Board as tariff petition No. TP30/2007 and directed to publish the same as provided in the KSERC (Tariff) Regulation, 2003, vide letter dated 6-7-2007. KSEB published the details in two Malayalam dailies and one English daily inviting comments from the Public.

8.2 Salient features of the KSEB's Tariff Petition

A summary of the tariff revision petition submitted by the Board is as follows:

I Proposal for change of Tariff

Sl.No	Tariff Category	Existing tariff		Proposed tariff		Expected additional revenue	Increase
		Demand Charges (Rs./kVA)	Energy Charge (Rs./kWh)	Demand Charges (Rs./kVA)	Energy Charge (Rs./kWh)	Rs. Crores	(%)
1.	Power intensive industries						
	EHT – 66 kV	260	2.90	260	3.90		
	EHT - 110 kV	245	2.90	245	3.90	9.03	27.90
	HT – I	270	3.00	270	4.00	77.52	27.17
2.	Railway traction	230	2.25	300	3.50	11.77	47.21
3.	HT- IV Commercial	350	3.20	400	4.20	53.90	26.82
4.	Licensees with self consumption more than 50% of the total purchase from KSEB						
	11 kV	255	2.75	270	3.00	1.27	8.32
	66 kV	240	2.60	260	2.90		
	110 kV	225	2.60	245	2.90	3.91	11.05
	Total					**157.39**	**26.49**

II Other Changes proposed.

A. HT-EHT Category:

1. Minimum demand charges for HT consumers shall be recorded maximum demand or 90% of contract demand or 100 kVA which ever is higher, in place of recorded contract demand or 75% of contract demand or 50 kVA whichever is higher.
2. In addition to existing conditions, all consumers of HT and above with connected load exceeding 2500 kVA (all equipments taken together in their premises) irrespective of the date of commencement, or nature of industry or nature of product to be classified as ‘Power Intensive’.
3. For all Power Intensive consumers 100% extra energy charge for peak hour consumption shall continue.
4. All ‘Deemed HT’ consumers to be charged at LT tariff itself instead of HT tariff. They shall convert themselves into HT within 6months. If they maintain connected load above 100 kVA during the period of 6 months and avail power from LT, a surcharge of Re.0.50/ kWh is proposed.
5. The Seafood processing and milk chilling and processing units to be retained under the Commercial Category
6. All IT including software development units to be included under Commercial Category.

7. One time capacity charge of Rs.5000/kVA is proposed from all new HT and EHT consumers and those who require additional power.

B. LT categories:

1. In the LT - I(A) Domestic category, the condition that 'use of electricity for load other than domestic shall not exceed 20% of connected load' to be changed to 'use of electricity for load other than domestic load to be limited to 20% of the connected load or 500W, which ever is less'
2. In residential multistoried buildings, the tariff applicable for 'common facilities' shall be

   Domestic tariff - If the connected load of 'common facilities' is less than 20% of th e total connected load and 'area other than domestic' is less than 5% of the total area.

   Commercial tariff - If the connected load of 'common facilities' is more than 20% of the total connected load or 'area other than domestic' is more than 5% of the total area.
3. Water supply projects for 'domestic use' shall also include :
   - domestic water supply schemes in SC/ST and Laksham veedu settlements taken over and managed by three tier panchyaths
   - all social drinking water supply projects established through MP/MLA fund/PPS/ Three tier panchayath fund, Rajeev Gandhi drinking water schemes managed by beneficiary groups
4. The dairy farms/milk chilling plants with or without chilling/ freezing/ cold storage activity to be included under industrial category provided the chilling/freezing/cold storage load is limited to 20% of the total connected load. If it exceeds 20%, LT VII (A) tariff is applicable.
5. Freezing plants, cold storages, Bakeries, CD recording/ duplication, computer consultancy services, software development with or without SSI registration, data processing activities, desk top publishing, floriculture activities, marble cutting, colour photo printing, tissue culture, audio/video/CD recording/ duplication units to be classified as LT VII (A) Commercial.
6. Automobile service Stations to be retained under LT VII (A).
7. The automobile service stations with workshop shall segregate the workshop load for availing the benefit of industrial tariff, otherwise shall be charged under LT VII (A) Tariff.
8. If the monthly consumption of existing consumers under LT VII (B) exceeds 200 kWh, LT VII (A) tariff shall be applicable.

8.3 Deliberations in the State Advisory Committee

The ARR of KSEB and tariff applications were placed before the 15th State Advisory Committee in the meeting held on 11-07-07 and the views of the Advisory Committee have been considered. The minutes of the deliberations in the Advisory Committee is placed as Annexure-IV.

8.4 Public hearing

The Commission conducted Public hearings at three places viz., MNR Hall, TB Road, Palakkad on 16-10-07 , Municipal Conference Hall, Aluva on 17-10-2007 and Commission's Office at Thiruvananthapuram on 18-10-07. Annexure - V gives the list of the persons who attended the public hearings. During the Public Hearing, Member (Finance) and Chief Engineer (Commercial and Tariff) representing KSEB, presented the salient features of the Tariff petition.

8.4.1 Objections from Public and reply of KSEB

In response to the notification issued in the press on 7th September, 2007 inviting objections / suggestions etc from the general public and consumers, in respect of the tariff petition of KSEB a total of 48 written objections were received. Objections were communicated to KSEB to furnish their response. In a few cases the objectors filed their rejoinders to the replies of KSEB. Main issues raised by the objectors and the response of KSEB are given below: -

8.4.2. Non Compliance to legislatory requirements

Kerala HT and EHT Industrial Electricity Consumers' Association submitted that a Licensee like KSEB has no authority to make the statement that certain provisions of National Tariff Policy cannot be implemented in the State of Kerala in view of its peculiar socio economic conditions. Providing for a social cause and providing electricity at subsidized rates is the prerogative of the Government and thereby the State Government as per requirements of Sec 65 of Electricity Act, 2003, National Tariff Policy and Appellate Tribunal Orders, must provide subsidy to the utility for compensating its fall in revenue.

KSEB'S Response

KSEB is a public sector undertaking under the State Government. Unlike any private entrepreneur, KSEB will have to follow and meet various social obligations and commitments. KSEB has been providing free electricity to BPL domestic consumers with monthly consumption of less than 20 units. Steps have been taken to electrify villages and rural areas, which are not beneficial or remunerative to KSEB. KSEB has been releasing water from its reservoirs for drinking purposes, irrigation, etc., even sacrificing power generation. Different drinking water schemes are provided with electricity at subsidized tariff. Settlements, colonies etc., are provided with electricity neglecting its financial viability. KSEB has been implementing various policy directives and decisions of the State Government, most of them not financially beneficial for KSEB.

8.4.3. Cost reflective Tariffs

Stake holders pointed out that KSEB in its proposal has admitted that if the principle of cost of supply is strictly followed LT supply should have been charged more compared to HT Supply. Some of the industrial consumers like the Kerala HT and EHT Industrial Electricity Consumers' Association questioned as to why KSEB proposal is going against the principles they themselves agree. Commission has been directing KSEB to furnish the required information on cost of supply, but KSEB has not yet provided the same. As per provisions of Electricity Act, 2003, National Tariff Policy, various judgments of Appellate Tribunal for Electricity and regulations/orders/directives of

KSERC, tariff should have been determined based on the principles of Cost of Supply. The legislation also requires cross subsidies in sectors to be reduced

KSEB'S Response

It is difficult to determine the actual cost of supply to each category of consumers. The Tariff Policy notified by the Government is for tariff based on average cost of supply and not on actual cost of supply.. Moreover if actual cost of service theory is adopted, the tariff of agricultural, domestic catagories and orphanages and other weaker sections in the society is likely to increase three to four times over the prevailing tariff.

8.4.4. KSEB has filed Tariff proposal after public hearing was conducted by the Commission

It was pointed out by stakeholders that had KSEB submitted their tariff proposal in time as directed by KSERC as per Sec 64 of the Electricity Act, 2003 stake holders would have got an opportunity to object to any clause they have grievance on and give their response. In the instant case KSEB has concealed Tariff petition in the guise of comments on Draft Schedule of Tariff and Terms and Conditions of Retail Supply by KSEB issued by KSERC.

KSEB'S Response

The Commission notified the draft tariff schedule on 23-4-2007 and allowed one month time to all stake holders to file objections, changes and comments on the draft. KSEB filed the proposal and changes on the draft tariff schedule notified by the Commission within the time frame allowed by the Commission. The Commission had conducted public hearing within the time frame allowed for filing objections. It is understood that the Hon Commission has decided to conduct public hearing again during 3rd week of October.

8.4.5. Power Intensive Consumers

Consumers pointed out that the definition of power intensive industries stands revised in the present proposal of KSEB. Other States in the country, like AP and MP removed the category of power intensive industries to avoid confusion and discrimination and moved towards voltage wise classification of industries. Kerala already has voltage wise categorization. Hence the best practice will be to stick to voltage wise categorization instead of revising the definition of power intensive industries. The revision of definition of power intensive industries by including all industries having connected load of 2500 kVA or more, all EHT and majority of HT Industrial Consumers under Power Intensive Industries category is to extract more revenue from them. Consumption of more power at high voltage is only beneficial to KSEB and is in no way detrimental to the Board's interest.

Consumers further argued that, KSEB has proposed Rs. 1/Unit increase for all existing power intensive industries. KSEB also proposed to retain the provision of 100% extra charges during peaktime. The effect of these would be an increase of 60% in energy charges. Such increase will result in the closure of most of the affected industries.

KSEB's Response

KSEB in the petition, proposed Rs 1/- per unit increase only for power intensive industries, whose use of electricity as a basic input (raw material) for industrial production. KSEB had given various concessions to power intensive industries earlier when Kerala had surplus power. But now the situation has completely reversed . At present more than 50% of the Demand is being met by purchasing thermal/Nuclear power from Central Generating Stations where the cost of energy is increasing every year. Moreover throughout the country, there was severe power shortages and KSEB is finding it difficult to get additional power from thermal stations situated outside the State as well as to get allocation of power from stations being set up. Also considering the policy directives of the State Government as well as socio economic reasons, KSEB was not in a position to propose tariff increase for domestic and other subsidized categories. So KSEB proposes an increase of Rs 1/- per unit for power intensive industries who use electricity as raw material.

8.4.6. Increase the billing to a minimum of 90% of contract demand against contract demand.

This will technically and economically upset the functioning of licensee as pointed out by many stakeholders.

KSEB's Response

KSEB has to plan and develop the entire power system right from generation, transmission and distribution according to contract demand of its consumers. If the actual billing demand is much less than the contract demand, it will lead to under utilization of resources as well as under recovery of the cost incurred by KSEB for such consumers. In order to reduce the financial loss to the Board on such accounts, two possible options are either to recover part of the loss directly from such consumers or to pool the loss with all others. So KSEB proposed to raise the ceiling limit of the billing demand criterion from 75% of contract demand to 90% of Contract Demand. It may be noted that the present limit of 75% of Contract Demand fixed by the Board is at the lower side compared to other states. Board proposes to levy demand charge on recorded maximum demand or 90% of the Contract Demand or 100 kVA which ever is higher.

8.4.7. Proposal to define all power consumers having total power requirement above 2500 kVA connected load as power intensive.

It is pointed out by Licensees that the new definition of power intensive industries proposed by KSEB including all consumers who avail power at 11 kV or more as power intensive will result in classifying all the licensees as power intensive consumers.

KSEB's Response

The Statement is wrong. All consumers who are availing power at 11 kV or more are not categorized as power intensive consumers. According to draft proposal of KSEB,

"Power intensive consumers are those availing power from Kerala System at 11 kV or more and also fulfilling any of the following conditions.

(i) For production of Calcium Carbide, caustic soda, charge chrome, Ferro Chrome, Ferro Manganese, Ferro Silicon, Ferro Alloys, Potassium Chlorate, Silicon Carbide, Sodium Chlorate, Sodium Metal, Chlorates/Perchlorates.

(ii) For melting metals or alloys and for extrusion of metals or

(iii) For use in electro chemical or electro thermal processes or in induction arc furnace for the manufacture of any product or

(iv) For manufacture of any products with any process in which cost of power as computed at normal industrial tariff based on BIS parameter is more than 25% of the cost of production of that product.

(v) With connected load exceeding 100 kVA and having heating load exceeding 20% of their total connected load, irrespective of nature of industry and nature of product.

(vi) Where power requirement total exceeds 2500 kVA of connected load of all the equipments taken together in the premises irrespective of the nature of industry.

8.4.8. Proposal to treat the licensees supplying power to Industrial estates as Bulk Consumers.

It is pointed out by the Licensee that the proposal to treat License supplying power to the industrial estates as Bulk consumers and to charge as per KSEB retail rates to the end consumers will eliminate all the licensees like CSEZ, KINFRA, Rubber Park etc from Gird II tariff rates.

KSEB's Response

It may be pointed out that Licensees are supplying power to its consumers at their own tariff rates which do not have any relation with KSEB tariff. The tariff of HT and EHT category is according to the voltage level at which supply is being given. For giving supply at a particular voltage, KSEB incurs same cost irrespective of whether to industries or Licensees. Since HT/EHT industrial tariff is the lowest, KSEB proposes to charge the same tariff to licensees who consume more than 50% of the energy purchased from KSEB for their own use. They consume Bulk Power but do not supply power to various sectors of consumers who are provided electricity at subsidized rates like domestic, agricultural, Govt offices, orphanages etc. Hence such Bulk consumers like CSEZ, KINFRA, Rubber Park etc.presently under Licensee category, be charged at prevailing industrial tariff according to voltage level at which they avail supply.

8.4.9. Double Charges during peak hours

Consumers have pointed out that provision of charging double the ruling tariff rate for energy consumed by power intensive industries during peak hours is quite unfair and unjust . This is proposed in addition to the prevailing TOD charge of 80 % extra for energy consumed during peak hours in excess of 10% of total energy consumed during the month. By the prevailing stipulation, consumers have to reduce the load by more than 40% to escape from the 80% extra energy charges. But to escape from present the hike, consumers will have to has to switch off operation during peak hours. This is not at all practical.

KSEB's Response

The double charges for peak hours is still prevailing for Power Intensive industries. But it may be noted that peak demand in the State is about double of the base demand and the increase in demand is met from liquid fuel stations , whose variable cost of energy is about Rs 6/Unit. In order to restrict the peak demand , KSEB has been taking various steps such as TOD pricing for HT and EHT consumers, power factor incentives etc But even with all these efforts , peak demand is increasing at a faster rate. So to restrict the peak demand, , KSEB proposes to continue the double energy charge for peak hour consumption as in the prevailing tariff.

8.4.10. Power Tariff of IT Industry

It was pointed out by consumers that an increase of power tariff as a result of proposed reclassification will put the very survival of IT Industry in the State in jeopardy. IT industries see cost effective power tariff as one of the biggest attractions that Kerala has to offer. IT industry is labour intensive, non polluting and one of the growth engines of state's economy. It is therefore essential that a facilitating environment is created for its growth. IT industries within a period of 5 years is expected to provide direct employment opportunities to two lakh professionals and indirect jobs to three times that number. Stifling an industry which offers so much potential and growth prospects is detrimental to the socio economic interests of the State. In the IT Policy issued by the Government of Kerala it is stated that "IT Industry Units, Government IT Parks,certified IT Parks and Akshaya e-centres are entitled to power tariff under HT I Industry and LT IV Industry" It is unclear how KSEB could make a contradictory stand to a policy document approved by the Council of Ministers. Government vide DO Letter No 8(7)/2007-IPHW dated 11-06-07 has recommended KSEB to supply power at industrial rate to create an eco system for investment in IT/Electronic Sector.

KSEB's Response

Considering the special nature of software business and revenue earned from such business KSEB proposed to provide electricity to various software parks and industrial parks such as Technopark, IT Parks etc at prevailing EHT/HT tariff.

As per Electricity Act, 2003 KSEB has to function on Commercial principles. Presently authority for tariff determination, ie tariff at which KSEB supplies power to various categories is vested with KSERC, Government can direct KSEB to charge a consumer at reduced tariff from the tariff fixed by the Commission, but revenue loss due to such direction will have to be given in advance to the Board.

The National Electricity Policy and Tariff policy notified by Central Government also had emphasized the boundary conditions for the role of State Government in tariff determination. Section 8.2.1(3) of National Tariff Policy stipulate that the State Commission should ensure financial viability of the utilities.

As per Sec 65 of Electricity Act 2003, "the State Government can grant any subsidy to any consumer or class of consumers, in the tariff determined by the Commission, but the Government may give the subsidy in advance as specified by the Commission and no such direction of Government shall be operative if the payment is not made in accordance with the provisions of the Act."

As per Sec 5.5.4 of National Electricity Policy of Central Government

" The State Government may give advance subsidy to the extent they consider appropriate in terms of Sec 65 of the Act in which case necessary budget provision will be required to be made in advance so that utilities does not suffer from financial problems that may affect its operations.

As per Sec 8.2 (3) of the Tariff Policy

" no direction of the State Government regarding grant of subsidy to consumers in the tariff determined by the State Commission shall be operative if the payment on account of subsidy as decided by the State Commission is not made to the utilities."

So for providing tariff concession to any consumer as directed by State Government, the revenue shortage on such decisions of the Government shall be provided in advance and also necessary budgetary provisions shall be made in the budget of respective Government department.

So, it is requested before Hon Commission that necessary direction may be given to the Information Technology Department, Government of Kerala that necessary budget provision may be made in the budget of IT department for providing necessary subsidy to KSEB on account of giving electricity to Software industry at industrial tariff instead of Commercial tariff, so that Commission can allow all software industry at industrial tariff.

8.4.11. Power Tariff of Sea Food Industry

Consumers requested that Hon Commission should not accept the proposal submitted by KSEB and they may be billed in HT-I Tariff instead of HT IV tariff. In the HT Industrial tariff the item 'Sea Food Processing units' may be changed to 'Seafood processing units (including chilling, freezing and cold storage)'

KSEB's Response

Various sea food exporters had filed petitions before Hon. Commission for reclassifying them under HT-I Industrial tariff against tariff classification of the Board incorporating them under HT-IV (Commercial) Tariff. The petitions were disposed off by the Hon Commission vide its order dated 11-05-2006 with the following verdict.

"The Commission after examining the matter in detail , decides to accept the arguments of the Board that since the petitioners were consuming electricity mainly for the purpose of cold storaging of sea food items, they were to be classified under HT_IV Commercial and need not be classified under HT-I Industrial as requested by the petitioners"

Then WP(C) No 17033 was filed before the Hon High Court of Kerala challenging the above decision of Hon KSERC. Hon Division Bench of High Court of Kerala vide Judgement dated 27-07-2006 directed the petitioners as follows.

" even though an interim stay was passed by this court, we are of the opinion that the petitioner has to file an appeal in the Tribunal constituted under Sec 110 of the Electricity Act, 2003 and this writ petition is not maintainable.. ….. Both parties are free to raise all contentions before the tribunal. The writ petition is disposed off accordingly"

The petitioners approached the Hon Appellate Tribunal for Electricity vide Appeal No 236/ 2006 dated 24-08-2006. Hon Appellate Tribunal vide Judgement dated 7-03-2007 disposed the appeal finding no merit. Para 17, 18 and 19 of the Judgement of the Appellate Tribunal is reproduced here for kind perusal of the Commission.

"17. In the …….., it has been clearly stated that all electrical energy was required for operating and lighting of appellant's Freezing and Cold Storage premises…………This clearly indicates the purpose for which the electricity was required to be consumed…………since the energy is being supplied to appellant for cold storage and freezing units, it squarely falls within the category HT IV (Commercial). The Tariff was fixed by KSEB in exercise of its quasi legislative power under the provisions of Electricity (Supply) Act, 1948. In the….tariff. Once Cold Storage and freezing units were classified under category IV (Commercial), the classification automatically applied to the appellant from the day the tariff order was issued viz May 4, 1999 as according to agreement between the appellant and KSEB, the electrical energy is being supplied for running the cold storage and freezing units of the appellant. Therefore no notice was required to be given to the appellant by KSEB before billing it under category HT-IV (Commercial).

18 The learned counsel …… contention of appellant as the agreement cannot have primacy over the tariff order which is statutory in nature. In any event……….to the appellant.

19. In the circumstances, therefore, we do not find any merit in the appeal. Accordingly the same is dismissed."

Hence the categorization of Sea Food Exporters under HT_IV Commercial Category is justifiable and legal.

8.4.12. Deemed HT Status

It was pointed out by consumers that the problem of deemed HT status can only be solved by making compulsory the conversion from LT to HT if the maximum demand exceeds 100 kVA instead of 100 kVA connected load. Compelling all consumers whose connected load more than 100 kVA and Maximum Demand less than 100 kVA is not fair.

KSEB's Response

Design of entire system parameters are to be done on the basis of connected load and not on the basis of maximum demand. The Maximum demand is not a constant value. It keeps on changing depending upon the requirement of the consumer from month over month. So designing (adding and with drawing system elements) on the basis of inconsistent parameters is not practicable and viable. Hence the proposal of consumers that conversion of LT to HT shall be on the basis of Maximum Demand and not connected load cannot be accepted.

8.4.13. Units to be classified as power intensive if more than 20% of load is used for heating purposes.

It is pointed out by consumers that the proposal to classify industries having more than 20% connected load for heating purpose will adversely affect rubber plantation industries.

KSEB's Response

This is only an adaptation of the existing condition as per prevailing tariff and not a modification. So the Hon Commission may admit the same.

8.5. Commission's decision

The Commission considered the tariff petition and the objections filed by various stakeholders. Many objectors have pointed out that many of the proposals of the Board are not in line with the provisions of the Act. However, considering the revenue gap and the need to rationalize the tariff, it is imperative that changes in tariff are required. Further, there is considerable cross subsidy existing at present, especially in LT commercial category, which has to be brought down in a phased manner. However, it is also difficult to enhance tariff for major sections of the society instantly, which has to be done only in stages. The Tariff policy has necessary directions for deciding the tariff in the longer horizon ie., by 2011. The Commission is of the view that this stipulation has to be followed as a benchmark for arriving at a tariff in the longer horizon, at the same time minor deviations are required considering the practical implications. One of the directions was not to disturb the cross subsidy ratio. The Commission is committed to adhere to the policy directions, while moving towards long term target, deviations are necessary in the short horizon to achieve the desired objective in a practical and sustainable manner. Since the Commission has to function within this framework, in the present order the Commission has strived to attain a balance of various issues facing the sector.

In the present order the Commission has weighed the factors such as balancing among different categories of consumers, minimum tariff increase for majority of consumers, reduction in cross subsidy among highly skewed category of consumers etc,. This is apparent in the case of LT and HT commercial category and the Commission wishes to reduce the disparity between HT and LT commercial rates. Hence Commission seeks to reduce 20ps per unit for LT VII- A and VII-B in the existing tariff and to enhance 50 paise for HT IV category to overcome the revenue deficit. KSEB has proposed to increase the tariff for power intensive category by Re.1/kWh apparently as a disincentive to energy intensive industries. The Commission is of the view that, tariff acts as the primary signal for deciding the consumption pattern of any category of consumer. There is also a merit in the argument of KSEB that marginal cost of power is higher and there is inability to increase the generation internally due to various factors and the burden of high cost of power has to be shared by power intensive industries. At the same time, the Commission finds it difficult to accept the argument of KSEB to change the existing definition of power intensive consumers, as it practically treats all HT & EHT consumers as power intensive. Hence, considering all these factors, the Commission decides to retain the definition of power intensive category and enhance the tariff of existing power intensive consumers allocated power on or after 17-12-1996 by 50 paise per kWh.

The Board has also proposed recategorisation of many consumer groups from industrial category to commercial caregory. It is a fact that industrial tariff is comparatively low and many categories of consumers claim to be 'industrial' to avail this benefit of lower tariff. Probably the reason could be the present higher tariff in the commercial category and comparatively lower tariff for industrial category. According to the Commission, definiteness is required on the definition of an industrial category. The Commission is of the view that, the same can be decided after a consultation process by inviting suggestions from the stakeholders. Further, there should also be an effort to bring down the substantial cross subsidies borne by the commercial consumers. The Commission will soon prepare a policy paper on tariff rationalization detailing various issues in the tariff determination and the road map for cost recovery. In the mean time, the Commission has decided that the categories which are apparently commercial in nature, presently categoriesed in the industrial tariff to be shifted to appropriate commercial category. Thus, consumers charged under LT IV industrial tariff such as freezing plants, cold storage, audio/video/CD recording/duplication units, and marble cutting units are shifted to LT VII (A). In the same logic, Airports are also included under HT IV category. The Commission has also recognized self financing educational institutions, seafood processing, milk chilling plants and call centres as new consumer groups and included them under appropriate Commercial Category (LT VII A / HT IV). Further, institutions engaged in purely charitable and non-profit making activities such as SoS childrens' villages, Palliative care centres, cancer care centres, HIV rehabilitation centres are categorized under LT VI (D). As a rationalization process, it has been also decided to merge the slabs in this tariff category and charge all units at 85 paise/kWh.

The Commission also considered the proposal of KSEB for the Licensees. Since the same would not come under the purview of retail tariff, the Commission has decided to classify the present Grid tariff as bulk supply. As a first step towards rationalization and cost reflection, the Commission has removed the distinction of different category of licensees, and decided to align tariff on the basis of voltage of supply. Hence bulk supply tariff would be benchmarked to respective voltage level industrial tariff. Since the licensees undertake distribution of power, to cover the distribution cost 5% reduction in benchmark energy charges is allowed.

Based on the above changes, the Commission estimates that the changes in tariff would result in increase in revenue Rs. 69.79 Crore. However, for the financial year, the increase would be applicable only for four months which would be Rs. 23.26 Crore. This is against the revenue gap of Rs.30.34 Crore as estimated by the Commission in the previous chapter.

The detailed schedule of terms and conditions of tariff for Retail and Bulk supply to be effective from 1-12-2007 is given in the next Chapter. The Commission directs that the schedule of terms and conditions shall be published by KSEB as provided under Section 45(2) (b) of the Electricity Act 2003.

Chapter IX

SCHEDULE OF TARIFF AND TERMS AND CONDITIONS FOR RETAIL SUPPLY BY KSEB WITH EFFECT FROM 01-12-2007

Unless the context otherwise requires words and expressions used in this schedule and defined in the Electricity Act, 2003 or the Regulations specified by the Kerala State Electricity Regulatory Commission and the Terms and Conditions of Supply approved by the Commission shall have the meaning respectively assigned to them in the Acts or Regulations mentioned above.

The tariff mentioned in this schedule shall apply to Consumers to whom the Kerala State Electricity Board has undertaken or undertakes to supply electricity not withstanding anything to the contrary contained in any agreement entered into with any consumer earlier by Board/ Government or any of the Tariff Regulations or rules and/or orders previously issued.

The rates specified in this schedule are exclusive of Electricity Duty and/or surcharge and/ or any other cesses, taxes, minimum fees, duties and other impositions existing or that may be levied or imposed in future by the Government or the Commission, which are payable in addition to the charges as per the tariff mentioned in this Schedule.

PART A - EHT AND HT TARIFF

General conditions for HT and EHT tariff

1. For the purpose of conversion from kVA to kW or vice versa, an average power factor of 0.9 shall be taken.
2. Billing demand shall be the recorded maximum demand for the month in kVA or 75% of the Contract demand (as per the agreement) whichever is higher.
3. When the actual maximum demand in a month exceeds the Contract demand as per the agreement the excess demand shall be charged at a rate of 150 percent of the demand charges applicable.
4. *Power intensive industries:* The industries which manufacture any one of the following products or using induction arc furnaces or industries engaged in any one or more of the following processes are classified as power intensive industries.
    a. Calcium carbide
    b. Caustic Soda
    c. Charge Chrome
    d. Ferro Chrome
    e. Ferro manganese
    f. Ferro Silicon

g. Ferro Alloys

h. Potassium Chlorate

i. Silicon Carbide

j. Sodium Chlorate

k. Sodium Metal

l. Chlorates/Per Chlorates

m. Melting of metals and Alloys

n. Industries engaged in electro-chemical/electro-thermal processes

o. Industries using induction arc furnace

p. In other cases, where the cost of power is more than 25% of the cost of the product manufactured.

Note: If the industries are having heating load, and if the connected load of the heating load does not exceed 20% of their total connected load, such industries shall be classified as Non-Power intensive industries.

5. Power Intensive industries which are allocated power on or after 17-12-96 shall be shall be charged 100% extra over the normal rates for the energy consumed during peak time. This will apply to additional power required by the existing Power Intensive industries

6. All HT/EHT consumers shall install Time of Day (ToD) meters at their cost. They shall undertake maintenance and replacement of the defective meters, CT/PT, and other equipments owned by them at their cost. If they fail to do so within two months from the date of intimation they will be charged 50% extra over the prevailing rates applicable to them for both Demand and Energy.

8. All EHT consumers (except Railway Traction) and all HT/Deemed HT consumers (except Cinema theatres, drinking water supply pumping stations of Kerala Water Authority, Corporations, Municipalities and Panchyats) shall be billed on differential pricing system as per the formula indicated in the Annexure A to this Schedule.

9. The Monthly minimum payable shall be the minimum guarantee amount as per minimum guarantee agreement, if any, or the billing demand as per condition 2 above, whichever is higher. This applies even during the period of disconnection of power supply.

10. In the case of factory lighting and colony supply of EHT/ HT (Industrial)_consumers, the applicable tariff shall be subject to the following:

    a. Factory lighting – When the total connected lighting load of the factory is less than or equal to 5% of the connected load for power, it can be tapped off from the power mains without segregation. When the above lighting load exceeds this limit, the whole lighting load should be segregated and metered by a sub-meter and lighting consumption in excess over 10% of the bulk supply consumption for power shall be charged at 7 paise extra per kWh for EHT and 25 paise per kWh for HT consumers.

b. Colony Supply: Colony supply when taken from the Consumer's EHT/HT supply shall be segregated and metered by means of a sub-meter and the consumption will be charged at 7 paise extra per kWh for EHT and 25 paise/kWh for HT consumers.

c. If no segregation is made as specified in (a) or (b) above, the bill amount of the consumer shall be increased for demand and energy charges by 10% and 20% for EHT and HT consumers respectively.

11. Power factor incentives/penalties as per Annexure B shall be applicable to HT and EHT consumers.

EHT TARIFF

This tariff shall be applicable to all Extra High Tension consumers. 110 kV tariff shall be applicable for Railway Traction but TOD Tariff is not applicable. The expression Extra High Tension (EHT) consumer means a consumer who is supplied with electrical energy at a voltage exceeding 33000 Volts under normal conditions subject however to the percentage variation indicated in the agreement with the Board or allowed under the Kerala Electricity Supply Code, 2005 specified by the Kerala State Electricity Regulatory Commission.

EHT Supply (66 kV or 110 kV)

Normal Rates			
Supply Voltage	**Demand Charge (Rs./kVA of Billing Demand/ Month)**	**Energy Charge (Paise/kWh)**	**Energy Charge (applicable to Power Intensive industries which are allotted power on or after 17-12-1996) (Paise/kWh)**
110 kV	245	290	340
66 kV	260	290	340

HT Tariff

This tariff shall be applicable to all High Tension consumers to whom the Board has undertaken or undertakes to supply energy. The expression High Tension (HT) consumer means a consumer who is supplied with electrical energy at a voltage of either 33,000 Volts, 22,000 Volts or 11,000 Volts under normal conditions, subject however to the percentage variation indicated in the agreement with the Board or allowed under the Kerala Electricity Supply Code, 2005 specified by the Kerala State Electricity Regulatory Commission.

HIGH TENSION (HT – I) INDUSTRIAL

Tariff applicable to Printing Presses (including presses engaged in printing dailies), Plantations, granite crushing units, industrial consumers, dairy farms, hatcheries, software development units, all non-agricultural pumping, drinking water pumping for public by Kerala Water Authority, corporations, Municipalities and Panchayats

Normal Rates	
Demand Charge (Rs./kVA of Billing Demand/Month)	270
Energy Charge (Paise/kWh)	300
Energy Charge (applicable to Power Intensive industries which are allotted power on or after 17-12-1996) (Paise/kWh)	350

HIGH TENSION (HT – II) NON-INDUSTRIAL / NON-COMMERCIAL

Tariff applicable to non-industrial, non-commercial consumers such as Public Offices run by Central/State Government, Local Bodies, Technical and Educational Institutions and Hostels run by or affiliated to Universities or Government Departments or Government Hospitals or Government Nursing Homes, Charitable Institutions and Colonies supplied with energy at HT and HT domestic.

Normal Rates	
Demand Charges (Rs./kVA of Billing Demand/Month)	300
Energy Charge (Paise/kWh)	300

In respect of offices of political parties approved by Election Commission of India the existing tariff shall apply.

Note: The HT Domestic connection shall be effected subject to the following conditions:

1. The connections provided shall be for the own domestic use of the consumer. He shall not install separate meters for different flats/rooms in his building/complex
2. he shall not rent out the rooms/flat/apartments and shall not resell the power supplied to the occupants inside or outside the premises to which HT connection is provided
3. If the apartment/flat/room is rented out or made use of for any other purpose he shall take individual LT connection at his cost. LT tariff shall apply in such cases. He shall maintain the transformer and allied equipments at his cost in such cases.

HIGH TENSION (HT – III) AGRICULTURE

Tariff applicable to agricultural consumers for all cultivations including dewatering, lift irrigation, sericulture, poultry farms, silk worm breeding, livestock farms, piggery farms, and combination of dairy and livestock farms.

Normal Rates	
Demand Charge (Rs./kVA of Billing Demand/Month)	270
Energy Charge (Paise/kWh)	300
Energy Charge (applicable to Power Intensive industries which are allotted power on or after 17-12-1996) (Paise/kWh)	350

HIGH TENSION (HT – IV) COMMERCIAL

Tariff applicable to airports, hotels/restaurants, lodges, hostels, guest/rest houses, travelers bungalows, commercial cold storage, freezing units, commercial establishments, business houses, film studios, cinema theatres, self financing educational institutions, hospitals other than government owned, private nursing homes, Seafood Processing Units, milk chilling plants, private scanning units, private X-ray units, private clinical laboratories, offices/ telephone exchanges of telecom companies, radio stations, television broadcasting companies, television channels, construction works.

Normal Rates	
Demand Charges (Rs./kVA of Billing Demand/Month)	300
Energy Charge (Paise/kWh)	300

HIGH TENSION (HT – V) SEASONAL CONSUMERS

1. HT Consumers with seasonal load shall register themselves with Board as seasonal consumers for the purpose for which electricity is used. He shall be billed under appropriate tariff for the period of use.
2. For registration as a seasonal consumer, the consumer should have a minimum of four working months per annum or he should guarantee a minimum equivalent thereto for the working season.
3. If the seasonal consumer uses his supply for different purpose during different seasons (periods) and if he does not register as a seasonal consumer, he shall be charged at the highest tariff applicable for the various operations for the whole year
4. If such a consumer registers with the Board as seasonal consumer and specifies the period during which the supply is used for different purposes, the tariff rates applicable to the different uses shall be charged for the entire period

5. The conditions for Lighting for seasonal industrial consumers shall be the same as applicable in the case of HT I.

6. When the registered seasonal consumer does not use supply for a few months outside the season (period) he should agree for disconnection without notice upon the expiry of the period and pay higher rates during the working seasons as below:

   a. Demand charges shall be increased by 5(12-N)% where 'N' is the number of months during which the consumer register himself with the Board to utilize the service in the year

   b. There will be no billing for the idling period

   c. The service to the consumer will be disconnected without notice immediately on the service during the idle period for which also he will be charged at the same seasonal rate applicable for the original period.

   d. Monthly minimum equivalent to demand charges for 75% of the contract demand increased as per (a) above shall be collected from the consumer in each working month.

PART B - LOW TENSION (LT) TARIFF

The expression 'Low Tension Consumer' (LT) means a consumer who is supplied with electrical energy at low or medium voltage by the Board. The voltages however being subject to percentage variations allowed under Kerala Electricity Supply Code, 2005.

General Conditions

1. The tariff minimum payable by all LT consumers other than LT-I and LT-VI (D) shall be the fixed charge of respective category.

2. All LT Industrial and LT Agricultural consumers are required to install static capacitors approved by ISI for power factor improvement, for their inductive load as recommended in the Annexure C attached and obtain the permission of the Licensee.

3. LT Industrial and Agricultural consumers who have not installed ISI approved capacitors of recommended value, the rate applicable shall be higher by 20% (both on fixed and energy charges) applicable to the respective categories.

4. For welding sets without ISI approved capacitors of recommended value the fixed charge and energy charge shall be higher by 30%.

5. In the event of static capacitor becoming faulty or unserviceable the consumer shall forthwith intimate the matter to the concerned Officer of the electrical section/major section and the consumer shall make immediate arrangements for repair.

6. If the capacitor is not put back into service duly repaired and to the satisfaction of the Board within one month, enhanced charges as per item 3 or 4 above shall be payable for the whole period during which the capacitor was faulty.

7. Consumers (other than LT-IV Industrial and LT-V Agriculture) who have segregated their power loads may install ISI approved static capacitors for power factor improvement as recommended in the Annexure C to this Schedule and obtain approval of the Board. In such cases they shall be eligible for a rebate of 5% on the energy charges only. The rebate shall be allowed for consumption from the billing month succeeding the month in which the approval has been obtained.
8. Tariff for lighting LT industrial premises: The lighting load and power load shall be segregated, and metered by separate meters. The lighting consumption in excess over 5% of the bulk energy consumption for power proper shall be charged at 50 paise per kWh extra over and above the specified rate. Where segregation is not done the entire charges (fixed and energy charges) shall be increased by 50%.
9. Power supply to common facilities such as water supply, common lighting, lifts etc., in the multi-stored building with non-domestic/commercial occupation only shall be charged under the appropriate LT-VI or LT-VII tariff. When there is a combination of occupation of different categories of consumers, common facilities shall be charged at the highest LT-VI or LT-VII tariff applicable among such categories.

LOW TENSION – I (LT- I)

(a) The tariff applicable to supply of electrical energy for Domestic use (single phase/ three phase).

Slab	Energy charges (Paise/kWh)
Up to 40 kWh	115
41 to 80 kWh	190
81 to 120 kWh	240
121 to 150 kWh	300
151 to 200 kWh	365
201 to 300 kWh	430
301 to 500 kWh	530
501 and above	545

The tariff minimum payable other than during the period of disconnection

Single phase – Rs. 30 per consumer per month

Three Phase – Rs. 170 per consumer per month

This is not applicable to non-paying group

The tariff minimum payable during the period of disconnection.

Single phase – Rs. 30 per consumer per month

Three Phase – Rs. 60 per consumer per month

Note:

1. Power supplies to common facilities such as water supply, common lighting, lifts, etc. in multi-storied buildings mainly for domestic occupation shall be under the domestic tariff if the connected load other than domestic is less than 5% of the total load.
2. Electricity used for water supply projects for pumping water solely for domestic purpose coming under local self government and beneficiaries committees, schemes under Jalanidhi, Jaladhara, Swajaladhara, and similar water supply projects coming under water supply societies, drinking water supply schemes in SC/ST and laksham veedu settlement colonies and taken over and managed by three tier panchyaths, all social drinking water supply schemes which are established through MP/MLA fund/PPS/three tier panchyat fund, and Rajeev Gandhi Drinking water schemes managed by beneficiary groups where water is used only for domestic purpose, shall be charged under Domestic tariff. The method of billing for the schemes shall be:
   a. the total group consumption shall be divided by number of beneficiary households to estimate the bill
   b. the same shall be multiplied with number of beneficiary households to arrive at the total bill for the scheme.
3. Domestic consumers shall be allowed to utilize electrical energy in some portion of their residence for their own use for purposes other than domestic as defined under LT-I when such connected load does not exceed 20% of the total connected load or 500 Watts in their premises. When connected load other than domestic use in such cases exceeds the above 20% or 500 W whichever is less, such loads shall be segregated and separate service connection obtained under appropriate tariff. When this is not done, the tariff applicable to the whole service shall be at the appropriate tariff applicable to the connected load used for purpose other than domestic, if such tariff is higher than the tariff for LT-I.
4. Consumers provided with LT supply for domestic use where the connected load does not exceed 500 W are exempted from payment of monthly current charges if their average monthly consumption does not exceed 20 units. This exemption shall not be applicable to the domestic consumers who are liable to pay minimum guarantee amount and/or rental charges. If connected load exceeds 500 W and/or average monthly consumption exceeds 20 Units, the consumer shall pay for the entire consumption. The exemption from payment of electricity charges is not applicable to any other category of consumers. The above exemption is applicable only if the consumers satisfy all the above conditions.

   (b) Tariff applicable to Offices of political parties approved by Election Commission of India, Libraries and reading rooms other than Libraries and reading rooms of educational institutions, sports/arts clubs, sailing/swimming activities (with connected load not exceeding 2000 W).

Slab	Energy charges (Paise/kWh)
Up to 40 kWh	155
41 to 80 kWh	240
81 to 120 kWh	280
121 to 150 kWh	345
151 to 200 kWh	405
201 to 300 kWh	505
Above 300 kWh	630

The tariff minimum payable other than during the period of disconnection

Single phase – Rs. 40 per consumer per month

Three Phase – Rs. 205 per consumer per month

The tariff minimum payable during the period of disconnection.

Single phase – Rs. 40 per consumer per month

Three Phase – Rs. 80 per consumer per month

LOW TENSION – II (LT- II) COLONIES

Tariff applicable to colonies of HT and EHT consumers where resale of energy is not involved and where supply at a single point is given at LT by the Board for domestic use in staff quarters, street lighting and pumping water for domestic use, colonies of universities, State/Central Government Departments, Public Institutions like Companies/Boards/Corporations under State/ Central Government, Hospitals therein, colonies of Railways, State/Central Government undertakings, Postal/ BSNL/ AIR/ Doordarshan and private colonies.

LT - II Colonies	
Fixed Charge (Rs./Month)	1990
Energy Charge (Paise/kWh)	565

Note: In Special cases where supply is given at more than one point each supply point shall be considered as separate consumer for the purpose of billing.

LOW TENSION – III (LT- III) TEMPORARY CONNECTION

Tariff applicable for illumination, exhibition, festivals, public meeting and fairs (single or three phase)

LT - III Temporary connections	
Energy Charge (Paise/kWh)	1200
OR	
Daily minimum Rs.120 /kW or part thereof of connected load, whichever is higher	

Note: 40% concession in the rates shall be allowed if the connection is for

(a) exhibitions conducted by Local bodies/Government educational institutions/ recognized private educational institutions

(b) festivals of public religious worship centers for illumination, public address system and security lighting.

LOW TENSION – IV (LT- IV) – INDUSTRY

Tariff applicable for general purpose industrial loads (single or three phase) viz., grinding mills, flour mills, oil mills, rice mills, saw mills, ice factories, rubber smoke houses, prawn peeling units, floriculture activities, tyre vulcanizing/retreading units, workshops using power mainly for production and/or repair, pumping water for non-agricultural purpose, public water works, sewage pumping, power laundries, hatcheries, screen printing of glass ware or ceramic, printing presses, bakeries (where manufacturing process and sales are carried out in the same premises) diamond-cutting units, stone crushing units, book binding units with allied activities, garment making units, electric crematoria, pyrolators installed by local bodies, mushroom farms, shrimp farms, SSI units engaged in computerized colour photo printing, computer consultancy service units with SSI registration engaged in software services and data processing activities and desktop publishing, software units, audio/video cassette/CD manufacturing units, dairy farms, agricultural nurseries (without sale) and tissue culture units.

LT - IV Industrial	
Fixed Charge Rs. per kW or part thereof per Month	45
Energy Charge (Paise/kWh)	325

Note:

a. Industries engaged in software development technology and tissue culture units need not segregate industrial load, lighting load and load for air conditioners. No Penalty shall be levied by the Board for non-segregation of the load by these units. However, such consumer shall install static capacitors having ISI certification to improve the power factor of the load of air conditioners if any.

b. If ISI approved static capacitors are not installed by such consumers to compensate the inductive load of air conditioners, 25% extra shall be charged on the total fixed charge inclusive of entire connected load

c. Software technology industries requiring new connection shall be provided connection only if they install ISI approved static capacitors to compensate the inductive load of air conditioners if any.

d. The entire consumption and connected load of above consumers shall be charged at industrial tariff (LT IV).

e. The dairy farms/milk chilling plant with or without chilling/freezing/cold storage activity shall be charged under industrial category provided the chilling/freezing/ cold storage load is limited to 20% of the total connected load. If it exceeds 20%, LT VII (A) tariff shall be applicable.

f. Workshops with Automobile service stations shall segregate the workshop load for availing the benefit of industrial tariff.

LOW TENSION –V (LT- V) AGRICULTURE

Tariff applicable to poultry farms, silk worm breeding units, agricultural consumers including dewatering and lift irrigation, livestock farms (minimum number of milch cattle shall be five) and combination of livestock and dairy farms, piggery farms (Minimum six breedable adult animals in the farm**)**

LT - V Agriculture	
Fixed Charge Rs. per kW or part thereof per Month	6
Energy Charge (Paise/kWh)	65

In all cases ISI approved capacitors of recommended value (See Annexure II) shall be installed for inductive load.

LOW TENSION –VI (LT- VI) NON-DOMESTIC

LT VI (A)

Tariff applicable to premises of religious worship, government or aided private educational institutions, libraries and reading rooms of educational institutions, convents, Government Hospitals, X-Ray units, laboratories and mortuaries attached to government hospitals, Private hospitals registered under Cultural, Scientific and Charitable Societies Act and exempted from payment of income tax.

LT - VI (A) Non-Domestic	
Fixed Charge Rs. per kW or part thereof per Month	40
Energy Charge (Paise/kWh)	Upto 500 kWh - 385 Above 500 kWh - 520

LT- VI (B)

The tariff applicable to offices and institutions under State/Central Government, Corporations, Boards under State/Central Government/Local bodies, hostels of educational institutions (other than self financing educational institutions) affiliated to Universities or under the control of the director of technical/medical education/public instruction or such other offices of government or run by the government or state social welfare board, hostels run by institutions that are registered under cultural, scientific and charitable societies Act and exempted from payment of income tax, KHRWS pay wards and institutions of KHRWS, travelers bungalows, guest/rest houses under government, type writing institutes, private hospitals, private clinical laboratories, X-ray units, private mortuaries, private blood banks, private scanning centres, offices of advocates / chartered accountants/tax consultants/ architects/social organizations, press clubs, museum/zoo, computer training institutes, offices of political parties not approved by the Election Commission of India and collection centres of ‘FRIENDS’ single window service centres under department of Information Technology and Police Clubs.

LT - VI (B) Non-Domestic	
Fixed Charge Rs. per kW or part thereof per Month	55
Energy Charge (Paise/kWh)	Upto 500 kWh - 450 Above 500 kWh – 590

The above tariff is also applicable to premises rented out for students who are paying guests subject to the following

a. Board and lodging shall be on paying guest basis
b. The students shall occupy the building along with the owners
c. LTVI-B tariff shall be levied only for premises rented to students who are accommodated as paying guests.

LT- VI (C)

Tariff applicable to offices or institutions under Kerala Water Authority, KSRTC, Kerala water transport, Income tax/Central Excise, Customs, offices under motor vehicles department/ sales tax department/ excise department, offices of all other tax/revenue collecting departments under state/ central government (other than local bodies), department of posts, light houses, pawn brokers, banks, railways (including railway stations) offices of Airport Authority of India (except airport) and any other LT categories not included in this schedule.

LT - V I (C) Non-Domestic	
Fixed Charge Rs. per kW or part thereof per Month	170
Energy Charge (Paise/kWh)	Upto 500 kWh - 675 Above 500 kWh - 840

LT- VI (D)

Tariff applicable to orphanages, schools and hostels of mentally retarded students, deaf/dumb/blind/physically handicapped persons, old age homes, Cheshire homes, SoS Childrens' Villages, polio homes, cancer and palliative care centers, HIV rehabilitation centers and other similar institutions recognized by the Government

LT - VI (D) Non-Domestic	
Fixed Charge Rs. per kW or part thereof per Month	Nil
Energy Charge (Paise/kWh)	85

The tariff minimum payable shall be

Single phase – Rs. 15 per consumer per month

Three Phase – Rs. 25 per consumer per month

LOW TENSION –VII (LT- VII) COMMERCIAL

LT VII (A)

Tariff for commercial consumers such as display lights, cinema studios, commercial premises, hotels and restaurants (having connected load exceeding 1000 W), showrooms, business houses, private hostels/lodges/guest/rest houses, freezing plants, cold storages, milk chilling plants, bakeries (without manufacturing process), Audio/video cassette recording/duplication units, CD recording units, self financing educational institutions (including hostels), petrol/diesel/LPG/CNG bunks, Automobile service stations, all construction works, installations of cellular mobile communications/cable TV networks, satellite communications, offices/ exchanges of telecom companies, Offices or institutions of AIR, Doordarshan, radio stations, insurance companies, call centers and marble cutting units.

LT - VII (A) Commercial	
Fixed Charge Rs. per kW or part thereof per Month	Single Phase – 50 Three Phase – 100
Energy Charge (Paise/kWh)	Up to 100 kWh - 545 Upto 200 kWh - 605 Upto 300 kWh - 675 Upto 500 kWh - 730 Above 500 kWh - 805

Note:

1. If the agriculture nurseries do sale also in the same premises, the tariff applicable shall be LT VII A if there is no segregation of load for pumping.

2. If the LTVII A consumer opts for segregation of their motor load for pumping and installs separate meters, LT IV tariff shall be applied for pumping and LT VII A tariff shall be applied for other activities in the same premises.

LT- VII (B)

Tariff applicable to consumers having connected load not exceeding 1000 Watts of shops/ bunks/hotels and restaurants/telephone/fax/email/photocopy booths and internet cafes.

When connected load in the above cited cases exceeds 1000 Watts the consumers shall be charged under LT VII (A). If monthly consumption exceeds 200kWh, entire consumption shall be charged under LT VII (A) tariff.

LT - VII (B) Commercial	
Fixed Charge Rs. per kW or part thereof per Month	30
Energy Charge (Paise/kWh)	Upto 100 kWh 330 Above 100 kWh 520

LT- VII (C)

Tariff applicable to cinema theatres, circus, Sports/arts clubs or sailing/swimming activities having connected load exceeding 2000 W.

LT - VII (C) Commercial	
Fixed Charges Rs. per kW or part thereof per Month	80
Energy Charge (Paise/kWh)	Upto 1000 kWh 440 Above 1000 kWh 590

Note:-

If the consumption of consumers under LT VII Commercial (A) or (B) exceeds a particular block, the entire consumption shall be charged under the next block. For example if the consumption exceeds 100 units but does not exceed 200 units, the entire consumption is chargeable at the rates applicable to 200 units block

LOW TENSION –VIII (LT- VIII) TEMPORARY EXTENSION

Applicable to temporary extension taken from consumers premises

LT - VIII Temporary extensions
Fixed charges per day of Rs.50/kW or part thereof of connected load plus the application fee, testing fee etc.,

LOW TENSION – I X (LT- I X) PUBLIC LIGHTING

Tariff applicable to various categories of public lighting per lamp. The Lamp/bulb, holder, condenser and choke shall be supplied by the local bodies free of cost for initial installation and periodical replacement.

COMPOSITIVE TARIFF

Type of lamp	Watts (W)	Rs../Lamp/Month		
		Burning Hours per day		
		4 hours	6 hours	12 hours
Ordinary	25/40	22	23	27
Ordinary	60	28	29	34
Ordinary	100	30	33	41
Fluorescent Tube	40	32	33	38
Fluorescent Tube	2 x 40	36	40	48
Flood light	1000	94	123	213
Mercury Vapour Lamp	80	44	46	56
Mercury Vapour Lamp	125	47	56	71
Mercury Vapour Lamp	160	53	62	72
Mercury Vapour Lamp	250	64	75	102
Mercury Vapour Lamp	400	82	96	140
Sodium Vapour Lamp	70	42	45	53
Sodium Vapour Lamp	80	44	46	56
Sodium Vapour Lamp	100	45	48	59
Sodium Vapour Lamp	125	47	51	65
Sodium Vapour Lamp	150	52	58	74
Sodium Vapour Lamp	250	64	72	100
CFL Automatic On/OFF CFL	1 x 11	17	18	20
	2 x 11	18	20	21
	4 x 11	21	22	27
	1 x 18	18	18	20
Mercury vapour lamp on semi-high mast only for 12 hours burning/day	3 x 400			755
Sodium vapour lamp on semi-high mast 12 hours burning/day	250			375

1. When public lighting is to be done after extension of lines, the consumers shall pay the cost of the work as per terms and conditions of supply approved by the Commission.
2. In campuses where lines and lights are provided by the consumer, LT metered supply shall be provided at Ps 90/kWh plus fixed charge of Rs.12 per meter per month subject to other conditions regarding the payment of cost of the work.
3. Supply to Light houses when taken from the board's street mains will be charged at appropriate public lighting tariff. Where low tension metered and independent supply is provided, the rate applicable will be 90 paise/kWh plus fixed charge at Rs.12 per meter per month and subject to other conditions regarding payment of cost of the work.
4. Metered supply will be given by the Board in areas where the Board's Low Tension distribution lines exist, for special type of lamps, rates for which are not given in the annexure, provided the lamps are installed and maintained by the local bodies at their cost. The tariff applicable in such cases shall be 90 Ps per unit plus fixed charge at Rs.12 per meter per month, subject to other conditions regarding payment of cost of the work.
5. Separate charges shall not be collected from the consumers towards services charges or meter hire.
6. Electricity duty is not payable for public lighting as per the Kerala Electricity Duty Act, 1963.

Annexure - A

Differential Pricing Method

Billing will be the highest of the following

Recorded Maximum Demand between

Normal Time (6.00 hrs – 18 hrs) Or Peak Time (18 hrs- 22 hrs) Or 75% of the Contract Demand

1. Demand Charge = Normal Demand Charge + Time of use charge - Incentive

(a) Normal Demand Charge = Billing Demand x Ruling Demand Charge/kVA

(b) Time of use Charge = Demand during peak time in excess of 60% of Demand during normal time x Ruling Demand Charge/ kVA x 0.8 x 4/24

(c) Incentive = Demand during off peak time in excess of 60% of

of the Demand during normal time (up to 120% of the Contract Demand) x Ruling Demand Charge/kVA x 0.25 x 8/24.

2. Excess Demand Charge = Excess Billing Demand x Demand charge/kVA x 0.5

(only if the recorded Maximum Demand during normal/peak time exceeds the contract demand

3. The recorded Maximum Demand during Off peak hours in excess of 120% of the Contract Demand shall be charged only at the ruling tariff.

Note:- This will be applicable only when the recorded maximum demand during off peak hours exceeds billing demand. Normal ruling tariff only shall be charged for recorded maximum demand in excess of billing demand.

4. Energy Charge = Normal energy charge + Time of use charge - Incentive.

(a) Normal Energy Charge = (Normal Consumption + Peak Consumption+ Off peak consumption) x ruling energy charges/unit.

(b) Time of use charge (Only if the consumption during peak period exceeds 10% of energy consumption during the month) = (Peak consumption – 10% of the energy consumption during the month) X Ruling energy charge/unit X 0.80

(c) Incentive (Only if the consumption during Off-peak period exceeds 27.5% of energy consumption during the month) = (Off peak consumption – 27.5% of the total consumption) x ruling energy charges/Unit x 0.35

5. Total Monthly Charges = (1) +(2) + (3) + (4).

6. In respect of HT/Deemed HT consumers having only one shift during day time and if they shift the working time to off peak time, they will not be eligible for incentive

7. (a) The ruling Demand Charge is the normal ruling rate applicable to Billing Demand.

(b) The ruling energy charge is the normal ruling rate applicable to energy

Annexure – B

Power factor incentive and penalty

The following incentive and penalty shall be applicable to HT and EHT consumers for power factor improvement **Power factor range Incentive**

Power factor range	Incentive
Power factor between 0.9 to 1.00	0.15% of energy charges for each 0.01 unit increase in power factor from 0.9
Power factor range	**Penalty**
Power factor below 0.90	1% energy charge for every 0.01 fall in power factor from 0.90

Annexure - c

Recommended values of Static capacitor in kVAR for power factor improvements

A. Induction Motors (LT)

Sl.No.	Total Motor Rating (HP)	KVAR rating of capacitors insisted	Sl.No.	Total Motor Rating (HP)	KVAR rating of capacitors insisted
1	Upto 3	1	8	Above 25 upto 30	10
2	Above 3 upto 5	2	9	Above 30 upto 40	12
3	Above 5 upto 7.5	3	10	Above 40 upto 50	14
4	Above 7.5 upto 10	4	11	Above 50 upto 60	18
5	Above 10 upto 15	5	12	Above 60 upto 80	22
6	Above 15 upto 20	6	13	Above 80 upto 100	25
7	Above 20 upto 25	7.5	14	Above 100 upto 130	35

B. WELDING TRANSFORMERS (LT)

Sl.No.	Rating of welding trans-formers in KVA	KVAR rating of capacitors insisted	Sl.No.	Rating of welding trans-formers in KVA	KVAR rating of capacitors insisted
1	1	1	16	16	12
2	2	2	17	17	13
3	3	2	18	18	13
4	4	3	19	19	14
5	5	4	20	20	15
6	6	4	21	Above 20 upto 22	16
7	7	5	22	Above 22 upto 24	17.5
8	8	6	23	Above 24 upto 26	18
9	9	7.5	24	Above 26 upto 28	20
10	10	7.5	25	Above 28 upto 30	21
11	11	8	26	Above 30 upto 35	24
12	12	9	27	Above 35 upto 40	27.5
13	13	10	28	Above 40 upto 45	32.5
14	14	10	29	Above 45 upto 50	35
15	15	11			

SCHEDULE OF TARIFF AND TERMS AND CONDITIONS FOR BULK SUPPLY TO LICENSEES BY KSEB WITH EFFECT FROM 01-12-2007

Unless the context otherwise requires the words and expressions used in this schedule and defined in the Electricity Act, 2003 or the Regulations specified by the Kerala State Electricity Regulatory Commission shall have the meaning respectively assigned to them in the Acts and Regulations mentioned above.

The tariff mentioned in this schedule shall apply to Licensees who avail energy through High Tension or Extra High Tension systems at their terminal notwithstanding anything to the contrary contained in any agreement earlier entered into with any Licensee by Kerala State Electricity Board/Government or any of the Tariff Regulations and/or rules and/or orders previously issued.

The rates specified in this schedule are exclusive of Electricity Duty and/or surcharge, other cesses, taxes, minimum fees, duties and other impositions existing or that may be levied in future by the Government or the Commission which are payable in addition to the charges as per the tariff mentioned in this Schedule.

The rates are subject to further revision as and when the cost of internal generation increases , and/or the cost of power purchased from other agencies in the State increases, and/or the cost of imported power and/or fuel cost adjustment price payable for imported energy increases beyond the present level.

The tariff applicable will be two part tariff as under:-

Category	Rate	
11 kV (LICENSEE)	Demand Charges (Rs./ kVA of Billing Demand / Month)	**270**
	Energy Charges (Ps/kWh)	**285**
66 kV (LICENSEE)	Demand Charges (Rs./ kVA of Billing Demand / Month)	**260**
	Energy Charges (Ps/kWh)	**275**
110 kV (LICENSEE)	Demand Charges (Rs./ kVA of Billing Demand / Month)	**245**
	Energy Charges (Ps/kWh)	**275**

Note:- Billing Demand shall be recorded Maximum Demand for the month in kVA or 75% of Contract Demand whichever is higher.

Special Conditions

1. The rates notified in this order are the normal ruling rates.
2. The maintenance and replacement of defective meters shall be done by the Licensees at their cost. If they fail to do so, they will be charged 50% extra over the rates notified in this order for both demand charge and energy charge. They shall also do the maintenance of CT/PT and all other equipments owned by them at their cost.
3. For billing purpose each point of supply shall be treated as a separate consumer.

Chapter X

REGULATORY IMPACT ASSESSMENT

10.1 Introduction

From its inception on 29.11.2002 till date, the Commission had issued four Orders on ARR & ERC of KSEB viz. for FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07. The first order was issued on December 31, 2003 primarily as a procedural requirement as the FY 2003-04 had almost come to a close. The second, third and fourth orders were issued on 16.4.2004 and 23.3.2005 and 30.3.2006 respectively, providing full financial years for the Board to comply with the suggestions and directives given in the Order. In the last four years, the Commission has endeavored to enable the Board to move towards a path of financial recovery and generation of surplus revenues. The Commission through an effective regulatory regime could contain the increases in expenditure of the Board, resulting in no increase in tariff during FY 2003-04, FY 2004-05, FY 2005-06 and FY 2006-07.

Though the FY 2003-04 had been a draught year, the Government avoided a tariff increase by providing subsidy. Monsoon was much better in FY 2004-05 and FY 2005-06 and the inflow was very good in FY 2006-07. Hence the Board was able to sell surplus peak and off peak power to other states through the power trading companies during FY 2005-06 and FY 2006-07 by prudent scheduling. This sale amounted to Rs.196.51 Crore in FY 2005-06. The detail of the sale of surplus power till Oct -06 in FY 2006-07 is given below.

Month	Sale through NVVN			Sale through PTC			Total		
	Unit sold (MU)	Unit Rate (Rs/ kWh)	Amount (Rs.Crore)	Unit sold (MU)	Unit Rate (Rs/ kWh)	Amount (Rs.Crore)	Unit sold (MU)	Unit Rate (Rs/kWh)	Amount (Rs.Crore)
Apr-07	126.19	3.6	45.43				126.19	3.6	45.43
May-07	108.95	4.25	46.3				108.95	4.25	46.3
Jun-07	114.76	4.25	48.77	2.01	4.25	0.86	116.77	4.25	49.63
Jul-07	90.51	4.25	38.47	36.69	4.25	15.6	127.2	4.25	54.06
Aug-07	26.3	4.3	11.31	6.15	4.3	2.64	32.45	4.3	13.95
Sep-07	33.25	4.3	14.3	39.06	4.3	16.8	72.31	4.3	31.09
Oct-07	45.33	4.3	19.49	26.62	4.3	11.44	71.95	4.3	30.94
Total	**545.28**	**4.11**	**224.07**	**110.5**	**4.28**	**47.34**	**655.8**	**4.14**	**271.4**

However, as per the audited provisional accounts, the Board has exceeded the approved level of expenses for FY 2003-04, FY 2004-05 and FY 2005-06. They have submitted petition for truing up for FY 2003-04, FY 2004-05 which the Commission has admitted and advised the Board to publish for the comments/objections of stakeholders.

The process of analyzing the Board's ARR&ERC has become more and more detailed over the years with the active participation of KSEB and other stakeholders in the public hearing and deliberations.

The Commission has been primarily emphasizing performance improvements in the following areas in the previous ARRs:

- AT&C Loss reduction
- Optimum scheduling of internal generation and efficient UI transaction
- Optimizing power purchase
- Receivables management
- Debt servicing
- Computerization
- Capital Projects Management
- System improvements and Consumer Services

10.2 AT&C Loss reduction

Reduction of AT&C losses is one of the prime areas of consideration for the Commission. The major measures implemented by the Board to reduce the AT&C loss are:

- Replacement of faulty and sluggish electromechanical meters with Electronic meters
- Theft detection by the anti power-theft squad
- Improving the billing and revenue collection
- Encouraging the HT/EHT consumers to improve power factor
- Encouraging the HT/EHT consumers to improve off-peak consumption and load factor

The extent of loss reduction achieved is given below.

FY	Internal Loss, %		Extend of reduction, %	
	KSERC Order	Achieved by KSEB	Target in SERC Order	Achieved by the Board
2003-04	27.43	27.43	3	1.64
2004-05	24.43	24.95	3	2.49
2005-06	21.89	22.96	2.72	1.99
2006-07	20.45	21.55(Estimated)	2.5	1.41(Estimated)

However, loss minimization oriented action plan and project identification with cost-benefit analysis are yet to be put in practice by the Board. T&D loss minimization shall be taken up as criteria for all in new transmission and distribution projects, especially in terms of HT: LT ratio, load side power factor, sizing of lines and transformers and metering. In the wake of increasing LT consumers and overall load growth, the Commission would urge upon the Board to segregate technical and commercial loss at various voltage levels and consumer category levels and evolve appropriate loss minimization and system improvement programmes based upon the techno-economics and cost benefit analysis.

The Commission has issued directions to incorporate collection efficiency also in the loss monitoring and targeting system.

10.3 Optimum Scheduling of Internal Generation

The Commission keeps track of the daily generation scheduling of the Board including the UI transaction by monitoring the daily system statistics and reservoir report from SLDC.The power purchase schedule on merit order basis is implemented and co-coordinated with internal hydro generation according to the requirements by the Board and the same is regularly reviewed at various levels in KSEB through appropriate management information system. The Commission expects the Board to achieve further improvement in the Optimum Scheduling of Internal Generation during FY 2007-08.

10.4 Optimizing power purchase

The Commission has been regulating the power purchase of the Board on merit order basis and the Board has been implementing the same.

10.5 Receivables management

The receivables analysis as submitted by the Board is given below.

It may be noted that about 40% is due from EHT Consumers, about 30% from public water works, about 12% from HT Industrial consumers, about 6% from LT commercial consumers and balance of about 12% from other consumer categories.

Rs.Crore.

Consumer Category	Receivables OB 2005-06	Demand 2005-06	Collection 2005-06	Closing Balance 2005-06
Domestic	4.90	848.55	850.30	3.14
Commercial	82.09	776.36	783.62	74.84
Public Lighting	7.41	44.54	45.11	6.85
Irrigation & Dewatering	61.12	23.02	51.16	32.98
Public Water Works	269.97	108.56	25.85	352.69
Industrial L T	37.30	329.96	325.62	41.64
Railway Traction	0.37	19.36	19.72	0.00
Bulk Supply	31.42	83.27	96.94	17.75
Miscellaneous	4.44	-0.08	0.15	4.21
Industrial (H. T)	163.24	708.18	733.45	137.97
Industrial (E. H. T)	450.76	365.76	335.18	481.34
Paddy Cultivators (Exempted)	1.41	6.76	6.79	1.37
NVVN/Other Traders	0.00	193.55	175.94	17.61
Inter state	7.38	0.00	0.18	7.20
Total	**1121.81**	**3507.79**	**3450.01**	**1179.59**

The Commission has directed the Board to submit breakup of arrears with age wise analysis of categories under litigation, referred to Revenue Recovery (RR), under RR, pending with KSEB and pending with Govt. including arrears for each consumer category.

The Commission views lack of prompt disconnection of electricity supply in the case of defaulted consumers very seriously. The Commission directs the Board to intensify the activity of the task force set up by the Board for receivable collection by appropriate measures.

10.6 Debt servicing

The Board has been swapping the high cost outstanding loans by borrowing fresh loans at low interest rates resulting lower interest payable. This has resulted in substantial reduction in the interest charges over the years and the Board has been restricting fresh borrowing and repaying the loans, as per details given below.

Rs.Crore.

Year	Opening Balance	Loan Received	Repayment	Closing Balance	Interest
2002-03	4771.90	1380.25	1057.99	5094.16	597.88
2003-04	5094.16	2013.39	1751.90	5355.65	622.16
2004-05	5355.65	582.15	1396.48	4541.32	535.54
2005-06	4541.32	379.44	1207.15	3713.62	451.44
2006-07 (Prov.)	3713.62	536.49	833.67	3416.44	380.06

The Commission is of the view that there exists further scope for improvement in swapping and closing of the loans to minimize the interest and debt service burden. Also, it is more important to link the loans to specific projects and manage the projects efficiently for timely completion so that capitalization can be made effective and project deliverables/revenue can be realized in time with least cost and time overrun.

10.7 Computerization

In the previous ARR the Board has stated that computerization of LT billing, cash collection & accounting in 183 section offices had already been completed. And out of the balance of 418 sections, data entry work of 332 sections had already been completed and the data entry work of balance sections was scheduled to be completed by December-2005. In the present filing, the Board has stated that computerization of LT billing, cash collection & accounting in 184 section offices were already completed and data entry work in the balance 426 was in progress. The Board has stated that HT & EHT billing had also been computerized and when computerization of LT Billing was completed in all the 610 electrical sections, it would not only facilitate the consumers to pay the bills easily but would also help the Board in retrieval of vital data required for monitoring revenue collection and for such other management functions.

The Board has stated in its letter-dated 14.2.2007 that out of the total 614 sections, computerization of LT billing was completed in 184 sections and computer accessories and systems were supplied to 424 sections. The Board order dated 29.12.2006 in this regard, stated, *inter-alia* ,that the application software "Jyothi" which runs on Microsoft platform had generated apprehensions among the users due to erroneous functioning and a committee constituted to review the same decided to stop rolling out the "Jyothi" software and decided to develop a platform for independent integrated application for computerization in KSEB and to constitute IT steering committee, functional committee and technical committee for implementation of the same.

The Board may consider the advantage of the computerization in terms of improving data quality avoiding revenue loss, improving financial management enabling accurate forecasts on the growth in sales, maintaining accurate data base, improving customer services, faster and accurate data retrieval, monitoring and control of various operational activities and taking up their implementation, keeping committed to definite target schedules for accomplishment.

10.8 Monitoring capital works

The Commission has started monitoring the physical and financial progress of capital works programme of the Board in detail from the previous ARR. Although the Commission has started receiving the details, in many cases they are not in accordance with any of the project monitoring schemes and standards. The Board was unable to convincingly respond to the Commission's questions with respect to project schedules, slippage recovery plans, cost and time overruns milestones, targeted deliverable etc.

The Commission is not in a position to scrutinize as well as approve any capital works of the Board in the absence of details such as DPRs, project schedules, project financial and physical progress vs. targets, project slippage recovery. The Board shall submit physical and financial progress periodically with targeted and actual achievements, and revisions, if any with justification thereof, showing details of source of funds so that it would be transparent how the Board manages the project deliverables as well as cost and time overrun. Regarding the new capital works, the Board shall take the approval of the Commission by submitting all relevant details including DPR and project management details.

10.9 System improvements and Consumer Services

The improvement in system voltage and frequency levels and decreasing trend in power interruptions are notable in the state's power system.

The Board has stated that it has plans to extend the coverage of consumer facilities such as the Trouble Call Management System presently operational in certain cities and distribution automation project, monitoring of Reliability Indices of Supply *etc*. to other selected areas also.

Reference is also made to the fact that the Board would be implementing the "Kerala State Electricity Regulatory Commission (Licensees' Standards of Performance) Regulations, 2006" from 1.5.2007 as per the extension granted to the Board to implement the said regulation vide notification in Kerala Gazette No. 1682 dated 25.10.2006.

The Commission urge upon for further improvement as envisaged in the various regulations and orders issued by the Commission.

Chapter XI

DIRECTIVES

The Commission directs that the Board shall comply with the following directives as well as the directives given in each sections and chapters of this ARR, in addition to the directives in the previous four Orders on ARR & ERC.

The response to these directives shall be filed on along with ARR for 2008-09, notwithstanding any other specific dates specified in any other sections in this Order.

11.1 Cost of Service for various Categories of Consumers

The Commission has directed the Board in the previous ARRs to submit separate accounts for Generation, Transmission and Distribution and to furnish the complete data and results in respect of cost of service study**.** Also, one of the important details sought by the Commission on the present ARR filing vide letter no. No.KSERC/TP-23/2006/967 dated 29th December 06 was cost of service for various categories of consumers based on the ARR. The Board vide letter No. KSEB /TRAC/TF-05/P/780 dated 14.2.07 replied that the details would be furnished separately; but the Board had made no further submissions in this regard.

Under Section 172(a), KSEB is presently the STU for the State of Kerala and under Section 30, the Commission is required to facilitate and promote transmission, wheeling and inter-connection arrangements for economic and efficient utilization of electricity. The facilitation of intra-State transmission and wheeling of electricity is one of the functions of the Commission under Section 86 of the Act.

Sections 61(g) of the Electricity Act, 2003 stipulate that the tariff should progressively reflect the cost of supply of electricity, and also reduce cross subsidies within the period to be specified by the Commission. The Commission is therefore required to prepare a roadmap for reduction of cross subsidies in a phased manner.

The Commission in accordance with the provisions of Sub Sections (2) and (5) of Section 62 of the Act and Section 86(1) (a) thereof, is mandated to determine separate tariff for generation, supply, transmission, distribution, wheeling and retail sale of electricity within the State irrespective of the fact that whether the State utility has remained vertically integrated or has been unbundled. The statute does not make any distinction between a licensee and a deemed licensee; the same procedure shall be applicable for determination of tariff for transmission and distribution of electricity to new licensees as well as the deemed licensees.

Also, reference is made to the Section 5.3(h) of the Tariff Policy wherein it is stated that the MYT framework has to be adopted for tariff determination in future.

The forum of Regulators has considered the time requirement of data collection for the preparation of MYT and decided that filing under MYT regime might be commenced from the base year of FY2008-09. Therefore, in line with these requirements, the Board shall submit a detailed Multi Year Tariff petition from FY 2008-09 with complete supporting data and analysis in accordance with the relevant sections/ provisions of Electricity Act 2003 and Tariff Policy.

11.2 Monitoring and implementation of capital works

The Board shall take the approval of the Commission for all new projects. For this purpose, the Board shall provide all relevant details including DPR to the Commission

The proposal for approval shall be furnished to the Commission sufficiently in advance with all details including the DPR and details showing project management organization and strategy. The approval of the Commission shall be in accordance with defined project evaluation Criteria duly considering the parameters relating to reliability, customer satisfaction, and performance targets.

The Board shall prepare comprehensive need based five-year investment plan bringing out well-defined objectives, for the approval of the Commission. Any new projects proposed shall be part of the approved investment plan.

The investment plans shall be updated annually and furnished before the Commission for approval.

11.3 Collection of Arrears

The Commission directs the Board to submit the complete details with the breakup of arrears under each category of consumers with age wise analysis with amount as under including the report of the Task Force constituted for improving the collection of arrears.

11.4 Repair and Maintenance Works

The Board shall submit the function wise physical and financial programme for R&M works

11.5 Segregation of voltage loss and loss reduction

As part of clarification on the ARR, the Commission sought the data on voltage wise break-up of losses at 220kV, 110kV, 66kV, 33kV, 11kV and LT the year 2006-07. The Board, vide letter dated 14.2.2007 submitted the following, stating that the voltage level loss for 33 k V and 11 k V and LT were not readily available and the same would be collected and submitted separately.

The loss at various voltage levels on the peakdemand day of 2664 MW on 3.1.2007

The loss at various voltage levels on the peak demand day of 2664 MW on 3.1.2007	
Voltage Level	Loss in MW
upto 220 k V, lines transformers	36.85
in 110 k V lines	50.34
in 66 k V lines	22.03
Total Loss up to 66 k V	**109.22**

Though the above figures cannot be considered as representative data of the HT&EHT system, it may be inferred from the above data that the loss during peak demand in 220 k V was 1.38%, 110 k V was 1.89% and in 66 k V was 0.83%, totaling to 4.10% loss in HT & EHT network for that particular day. However, in Data Form –A, the Board has stated the transmission loss as 5 (five) percentage of combined input to T&D system.

The above response denotes the deficiency in the practice of monitoring the voltage level loss as well as in the attempts to comply with the earlier directions of the Commission in this regard

The Commission directs the Board to submit the segregations of voltage level technical loss and loss reduction programme comprehensively.

11.6 Compliance with National Electricity Policy

In order to comply with the objectives envisaged under the National Electricity Policy notified by the Government of India, the Board shall file the petition for transmission tariff in accordance with the approved ARR &ERC.

Section 31 of the Electricity Act, 2003 envisages separation of Load Despatch function, which is reiterated in the National Electricity Policy. The Commission directs that the Board shall initiate steps to separate physical and financial functions of LDC. The expenses on account of operation of LDC shall be separately accounted and provided in the next ARR & ERC filing in respect of the Transmission licensee.

The National Electricity Policy stipulates that appropriate load despatch facilities with state-of-art communication and data acquisition capability on real time basis needed for providing and facilitating the framework for open access, is required to be provided at the State level, and realized not later than June 2006. The SLDC should be augmented, if necessary to provide these facilities. The Board shall submit the requisite proposals in this regard to the Commission bringing out clearly the existing capabilities and the extent of augmentation required along with the physical programme of implementation, fund requirement *etc.*

As per the National Electricity Policy, the Commission has to notify wheeling charges, surcharge *etc* regarding open access. To facilitate the process, the Commission directs that the Board shall file the proposal on principles of determination of wheeling charges.

11.7 Demand and Energy Projections

The Commission directs the Board to furnish consumer category wise growth in numbers, connected load, energy consumption and demand projections with supporting field data and forecast methodology and measures for market development/ energy sales in the ensuing filing of ARR& Tariff Petition.

11.8 Performance Evaluation and O&M Practices

The Board shall submit a report on performance evaluation of the generation plants taking all the systems and major components such as catchments and storage, water circuit, governors, turbines, generators control, instrumentation and metering, etc. into consideration.

The Board shall submit a report on the present operation and maintenance (O&M) practices vis-à-vis the scope for improvement with site specific strategy, taking into account the techno-economics and cost benefit into consideration.

The Commission seeks, if not in detail, a preliminary but comprehensive report on the above points from the Board

11.9 Interest and Debt Servicing

The Commission directs the Board to furnish the proposed plan for further swapping of the loans and debt restructuring, including borrowing plans and details of tie up of funding source for the proposed capital projects, with a view to minimize the debt service burden and the cost of funding.

11.10 Faulty meter replacement

As per Board's estimates, substantial number of faulty meters exist. The major reason apparently is the low quality of meter purchased by the Board. The Commission directs that, Board shall take necessary steps to procure good quality meters to reduce the instance of meter becoming faulty. Board shall also take necessary action to replace the faulty meters in an expedient manner. Board shall submit monthly reports on circle wise status of faulty meters and replacement of meters.

11.11. Employee cost

The major concern expressed by the Commission in all the ARR & ERC order is about the burgeoning employee cost. At present employee cost is about 26.75% of the approved expenses and about 58% of the total power purchase and generation costs. As per the study of tariff orders in 9 states, conducted by TERI, Kerala is only next to Assam where employee cost is 29%. In all other states it ranges from 7% to 15% of approved ARR. Further, in all states employee cost is reducing annually except in Kerala and Maharashtra. The Commission is of the opinion that this trend has to be arrested not by curtailing the genuine benefits enjoyed by the employees, but by concreted efforts to enhance the productivity. Hence the Commission directs that KSEB shall study prepare a road map for reducing the employee cost in a sustainable manner.

11.12. Trouble call management

In the ARR submitted by the Board, it has been mentioned that the trouble call management service using single telephone number would be extended to all districts. However, the Board has not fulfilled its commitment. The Commission directs that as initial step the service to be extended to all urban centres in the present financial years and rural areas subsequently.

11.13 Carbon Credits

The Board may explore the opportunity to earn carbon Credits derived from reduction in emissions of green house gases achieved through renewable sources in its proposed hydroelectric and wind power projects. IDBI is providing services such as Funding of the CDM projects, Advisory Services for Trading of Credit Emission Reduction (CER), buying and selling under different structures etc. in the area of Clean Development Mechanism (CDM)/Carbon Credits. The Designated National Authorities (DNA) for India is National Clean Development Mechanism (CDM) Authority, Member Secretary, Ministry of Environment and Forests, New Delhi.

11.14 Performance Standards

The Commission has issued performance standards for the licensees. The Government of Kerala under Section 108 has issued the direction that, performance standards need not be made applicable to the board immediately. Considering that, the Commission has extended the implementation of the said regulation to the Board. However, the Commission has directed the Board to provide the present standards achieved by the Board within three months. The Board has not complied with this direction so far.

11.15 Compliance with the Regulations

It is obligatory that the Licensees shall comply with the regulations published by the Commission in accordance with the Electricity Act 2003. These regulations are published after extensive consultations with the stakeholders through pre-publication and public hearing and the regulations so finalized are placed before the State Advisory Committee and Government after the publication in the Kerala Gazette.

11.16 Introduction of new Bill payment systems

Board shall introduce new bill payment mechanism (such as through ATMS, Cheque drop boxes etc) for the benefit of consumers. A report on the feasibility of such a scheme shall be submitted within 6 month of this Order.

ANNEXURE - 1

Objections of stakeholders and reply of KSEB on ARR & ERC

1. Addl General Manager (I/C), NTPC RGCCPP, Kayamkulam

Objections/Suggestions	KSEB's Response
1. Operation schedule for RGCCPP. Generation from NTPC RGCCPP has not been considered for the generation schedule for 2007-08.	KSEB has been scheduling and despatching power strictly as per the merit order of variable cost of generation from each station. The merit order of variable cost adopted for the scheduling for 2007-08 is given in Table 7.16 of the ARR and it can be seen that RGCCPP finds a place only at the bottom of the merit order stack. Ministry of Power has given a special allocation of 180MW from NTPC-Talcher-II station as part of the renewal of RGCCPP PPA. Accordingly KSEB had renewed the PPA for the Kayamkulam plant shouldering the fixed cost liability of about Rs 9.5 crores per month irrespective of scheduling from there. Due to the exorbitant variable cost of RGCCPP, KSEB was not scheduling any power from Kayamkulam station for KSEBs own requirement to keep the cost of power to the lowest possible level. The variable cost of Talcher-II is only about Rs 0.64 per unit and KSEB has been availing the full allocation from there. It may be noted that, NTPCs Kayamkulam plant and Talcher-II are two independent power plants and scheduling and dispatching of these two stations are done independently. So, it is not advisable to schedule the Kayamkulam plant according to the pooled variable cost of Kayamkulam and Talcher-II plants. It may also be noted that, KSEB has been bearing the full fixed cost liability of the KSEB share of RGCCPP station, irrespective of not scheduling from there.
Trading of RGCCPP power KSEB is presently trading the surplus power through traders at a very competitive rate upto Rs 5.65/kWh. NVVN is able to trade RGCCPP power to Northern and Western regions after paying comfort charges to KSEB to the tune of 50% of fixed charges payable. At present there is a market for liquid fuel based power in the power starved NR and WR markets. If KSEB could blend and sell the RGCCPP power together with their surplus power, KSEB will able to facilitate a lower tariff and a higher volume of RGCCPP power trading and recovery of fixed charges by KSEB. This option may be suitably considered so that both KSEB and NTPC will be benefited and higher utilisation of the idle capacity will be in the national interest.	KSEB has been taking all possible measures to trade the idle capacity at RGCCPP to the power starved NR and WR through NVVN a subsidiary of NTPC and NTPC-RGCCPP and they are paying 50% of the fixed charges to KSEB as comfort charges. The settlement of variable cost is being done directly by the trader NVVN with RGCCPP,. It is only a trading arrangement and the actual power flow depends on the demand in the other regions, the variable cost of energy at RGCCPP etc. Such a trading arrangement cannot be included in the estimation on account of the uncertainties in the deal. But KSEB shall take all efforts to trade the idle capacity and will try to earn maximum benefit out of that. Already, agreements are entered upto Feb-07 for trading of idle capacity at RGCCPP through NVVN, depending upon the conditions prevailing including demand, energy price, supply positions etc.

2. Kerala HT & EHT Industrial Electricity Consumers' Association

Objections/Suggestions	KSEB's Response
Safeguarding Consumer Interests (Para 2.3 to 2.6 of the objections on ARR) The Commission should fix a tariff in such a way that it shall progressively reflect the costs of supply and eliminates cross-subsidy. With respect to safeguarding the interests of the consumers, the Comission has not taken any step for rationalising the existing tariff sofar.	It may kindly be noted that, at present KSEB has about 88 lakh consumers in the State, out of which HT&EHT category is less than 2000 nos only. Majority of the consumer spectrum is from socially and economically backward class. Considering the socio-economical reasons, the Government has decided to continue the present system of subsidy and cross subsidy. In such a socio economic system it is not possible and practical to eliminate the subsidy and cross subsidy all of a sudden. The Hon'ble Commission, well aware of these ground realities, may reject the proposal made by them.
Tariff Rationalisation Till recently, the cost of supply of electricity in Kerala is one of the lowest in comparison with neighbouring states. This is basically on account of the favourable hydro thermal mix in the state. This mix masked inefficiencies in other areas such as employee costs, interest expenses etc and remain hidden for long. Despite this, the HT&EHT tariff in the state is higher than some other states. Objector has requested before the Commission to ensure removal of inefficiencies in other cost heads such as employee costs, R&M, interest etc and enable the savings in costs to reduce the tariff.	It is a fact that, the cost of electricity generated from hydel sources is much cheaper than other sources (thermal, non-conventional energy sources etc). But due to the objections and protest from environmental groups, KSEB was not able to start enough new hydel projects in tune with the increase in electricity demand and was compelled to purchase electricity from costly thermal sources. At present, more than 50% of energy requirement of the state is being met by purchasing power from thermal sources and it takes away about 50% of the total expenses of KSEB. The state government and KSEB have been giving utmost thrust on developing hydel projects and KSEB expects the support of the objector and their associates to tide over hurdles and objections created by various agencies. It may kindly be noted that, over the years KSEB has been taking sincere and dedicated efforts in reducing the various expenses components irrespective of the fact that the consumers are increasing at a faster rate. The details of the achievements of the board was given in Chapter-2 of the ARR. But it seems that, the objector has not conceived such vital informations provided in it. Through various efforts, KSEB was able to reduce the revenue gap from Rs 1316.43 crores in 2001-02 to Rs 144.58 crores in 2005-06. The per unit cost of electricity at distribution end has been reduced from Rs 4.57 per unit to Rs 3.52 per unit. The T&D loss in the KSEB system was reduced from 32.15% in 2001-02 to 22.95% in 2005-06. The interest cost was reduced from Rs 604.89 crores to Rs 451.44 crores. Board was able achieve all these through very close monitoring and control of various expenses components to the possible extent. So, the statement of the respondent that the favourable hydro thermal mix masked the inefficiencies in other areas is premature and highly misleading and far away from reality.
Compliance of the Board to the Commission directives (Para 2.16 to 2.17) The Board has not been following the directives issued by the Commission and take serious action against the Board	The objector is too generic while making such a comment on serious matters without any proof. The Board has been very seriously implementing the various directives and orders of the Commission. But tariff revision is a policy matter of the Government

with respect to the non- compliance of the directives. The objector requests before the Commission for suo-motu tariff revision. The Board is earning more than 14% RoE, which is against the regulation. The respondant has requested before the Commission to penalise the Board for not making any tariff revision and making corresponding truing up in the ensuing year	and as a public sector undertaking, Board have to comply with directions of the State Government. As per the existing Act, policies and other laws, the Commission can initiate tariff revision as 'so-motu petition' in tune with policies of the State Government. . The ARR for the ensuing year is prepared in advance in the previous year (6 months in advance) considering the past trend of the various expense components, assumptions and estimation. These may subject to change during the actual course of the year. It may be noted that vide the order of ARR for 2006-07, the Commission has curtailed various expense components projected by the Board, and at the same time has allowed the Board to file the truing up petitions at the end of the year. Board had filed truing-up petitions for 2003-04 and 2004-05 and will file the same for 2005-06 after the accounts of the Board are audited and certified by CAG.
Misrepresentation of Revenue Requirement The respondent prayed before the Commission that the Board is misguiding the Commission and the Public with revised ARR figures. Board is overspending various expenses over the limit approved by the Commission The additional cost incurred by the Board on account of the inefficiency should not be encouraged by the Commission.	The argument is baseless. As already mentioned, ARR is an estimate prepared based on certain assumptions, past trends and projections. If the Board has to strictly adhere to the limit prescribed by the Commission on various expense components, then the Board may be compelled to stop various developmental activities, borrowings and also have to reduce power purchase etc. This may lead to power cut, load shedding and total quality deterioration in the power distributed. The direct sufferers of such situation will be consumers and an organisation with strong footing on customer satisfaction cannot afford to have such an option.
Unbundling of KSEB (Para 2.21)	Unbundling of KSEB is a policy matter of the Government.
Subsidies in the Sector (Para 2.22)	As per the provisions in the Electricity Act-2003, National Electricity Policy and Tariff Policy, the Commission may take appropriate decision on such matters .
GAPS IN THE FILING (Para 3.4, 3.5) Board has prepared the ARR on annual basis, but as per the MYT regulations, the Board have to file the ARR on MYT frame work. It is a violation of the regulation.	Preparation of the ARR under MYT frame work is a policy matter and it require elaborate study and analyisis and will require more time . This has been communicated to the Hon'ble Commission and KSEB was allowed to file ARR on annual basis.
Para 3.6 As per the 'Terms and Conditions of Tariff for retail sale of Electricty- March-2006, the Board have to file tariff petition along with ARR.	As already mentioned, tariff revision or ways of bridging the revenue gap requires directions from the State Government for which the matter has been taken up with the State Government. Further action in this regard will be as per the decision of the State Government.
A4. ARR approval for FY 2006-07 and True-Ups (Para 4.1 to 4.4) In the order on ARR for 2006-07, the KSERC has approved a revenue surplus of Rs 184.64 crores and this has lead to earn an RoE of 26%.	The ARR for the year 2006-07 was prepared in October-November- 2005 and the same was submitted before the Commission on 1-12-2005. The ARR for 06-07 was prepared based on the past trend, estimates and projections. KSEB has clearly specified in the ARR that, the figures being projections and estimations

The revised estimate of the revenue receipts for the year 2006-07 is more than the same approved by the KSERC in the order on ARR

Generation and Power purchase for 2006-07

If the Board has reduced the T&D loss as approved by the Commission, there would have been a reduction in Generation& Power purchase by 433MU, would be resulted in reduction in power purchase cost by Rs 173 crores. The objector has prayed before the Commission to dis-allow the same.

Employee costs

The terminal benefits of the Board accounts for 10% of the ARR and constitute more than 40% of the employee costs. The Board has also shows an increase of Rs 97 crores over the same approved by the Commission. So the same may not be allowed.

Administrative and General Expenses

The Board in its filings substantiated for deviation in A&G expenses t be on account of Electricity Duty payable. The respondent is of the view that any change in electricity duty is on account of deviations in sales which in turn gets recovered in tariffs. Hence the Commission should not consider this deviation and must disallow the increased cost under this head, which is estimated as Rs 18.00 crores.

Depreciation

The Commission has directed KSEB to follow CERC norms for estimating depreciation, but the Board has estimated the depreciation based on Annual Accounts Rules 1985.

Other Expenses

The revised estimate of the other expenses shows an increase of 145% over the same approved by the KSERC vide the order on ARR 2006-07. The objector has requested before the Commission to disallow for the cost of Rs 115.58 crores forming part of other expenses.

Government Subsidy

The objector has request before the Commission to direct the State Government to release the subsidy on account of reduction of tariff of 20 paise per unit allowed to domestic and commercial category of consumers.

Thus, the objector has estimated a surplus of Rs 517 crores against the Board's revised estimate of revenue gap of Rs 230.19 crores

based on prior period data as well as future plans, it will definitely have minor changes during the actual course of action. The Commission has allowed the same and directed KSEB to file the deviations during the year end truing ups based on actuals.

The Commission in the order on ARR for 2006-07 has curtailed most of the expense components by fixing some ambitious targets, which are practically not achievable with in a span of one year. Board has also filed a review petition against the KSERC order on ARR and the Commission has specified that the Commission may consider the same during the year end 'truing ups'.

During the year, the energy sales and corresponding energy generation and power purchase show a high growth rate of 9%. The details are given in the Chapter-4 of the ARR. In the ARR for 2006-07, KSEB has estimated the energy sales as 10796.34MU, but as per the revised estimate, the energy sales for 2006-07 is 11250.10 MU , an increase of 453.76MU over the previous year estimate. This has resulted in increase in revenue from sale of power. More over, as part of the optimisation of generation and power purchase, KSEB has availed the full allocation from CGS and availed energy as UI during high frequency period at lower rates and sell it through traders. Combining these, there was increase in revenue receipts than the estimate given in the ARR. But, it may kindly be noted that, there was corresponding increase in all the expense components including generation cost, power purchase cost, employee costs, O&M costs etc. But the objector ignored such ground realities and considered only the revenue receipts alone. All these facts are given in the ARR and more details will be furnished along with the year end truing-ups.

The objector may appreciate that, the Board has been continuously reducing the T&D loss over the years. During the last few years, the Board has reduced the internal T&D loss from 30.76% to 22.96%, a reduction of 7.8% in four years. Comparing with the T&D loss reduction of other utilities, this was a remarkable achievement and the Hon'ble Commission also appreciated the same. KSEB was able to reduce the loss reduction targets of 2% specified by the Commission. In a nutshell, the suggested means by the objector to arrive a reduction in power purchase cost based on the T&D loss reduction targets is highly imaginary and impracticable.

The revised estimate of the various expense components is estimated based on the actuals during the year up to September 2006 . Through truing up, the Board will file the details and reasons for the deviations from the figures approved by the Commission.

As directed by the KSERC vide the order dated 5-1-2006, KSEB has been collecting the tariff of domestic and commercial category of consumers after allowing a rebate of 20 paise per unit. KSERC has directed the Government to release the revenue shortfall due to the same as subsidy in equal monthly installments, but the Government vide GO (Ms) 33/06/PD dated 16-12-2006 has declined to release

	any subsidy on this account. KSEB is still allowing a rebate of 20 paise per unit to the above mentioned consumers and will continue the same till the Commission issues further orders to stall the above rebate. So, the Commission have to take appropriate decision in this matter. The revised estimate shown by the objector is highly hypothetical and so the Commission may summarily reject the same.
A5. ARR PROPOSAL REVIEW FOR FY 2007-08 **Hydel generation estimates and interstate sales** The objector has estimated a hydel generation of 8437MU against the Board's estimate of 6934MU. Depreciation KSEB has estimated the depreciation as Rs 460 crores, but as per the rates approved by the Commission, the depreciation shall not be more than Rs 279 crores. Board has considered consumer contributions also as part of GFA and it is appropriate to disallow depreciation on consumer contribution forming part of GFA.	The Board has clearly narrated the methodology adopted for estimation of Hydel generation for the year 2007-08 in para 7.1.3(a) of the ARR. While comparing the decades long rain fall statistics of the state it is very difficult in understanding how such an imaginable figure could be estimated by the objector. The estimate of the objector is totally baseless and wrong. It has been stated by different scientific organisations and experts in this field that the year 2007-08 will most likely to be an acute draught prone year and KSEB fear that actual hydel generation may be even less than the estimate given in the ARR. KSEB has been following the mandatory Annual Accounts Rule 1985 of the GoI for accounting purpose and for estimating the depreciation. The accounts of the Board is being audited and certified by CAG of India and they are also following the same.
Employee costs The objector plea before the Commission to allow an escalation of 5% only on the employee cost approved by the KSERC of Rs 865 crores for the year 2007-08. They had also prayed that comparing with other power utilities the employee cost in KSEB is on the highest.	The objector may note that, about 5 lakhs new consumers are added to the state grid every year. It is the responsibility of the KSEB to provide quality power at affordable cost with minimum interruptions. KSEB is also undertaking about Rs 800 crore to Rs 1000 crore of capital investment every year. If KSEB reduce the employees and employee cost as suggested by the objector, it will seriously affect the Board in performing its responsibilities and that will ultimately reflect in quality erosion in the services rendered in the future period. The objector elsewhere mention that more than 45% of the employee cost is for terminal benefits which is unavoidable. In the other unbundled utilities, the pension liabilities upto the date of unbundling has been taken over by the State Government. If the terminal benefits are excluded, the employee cost of the serving employees in KSEB is comparable with that of other utilities.
Administration and General Expenses The objector has requested before the Commission to allow an escalation of 5% only on A&G expenses.	As per the present accounting principles, A&G expenses include rate, rent, taxes, duties etc and accordingly electricity 3(1) duty is accounted under A&G expenses.. The increase in A&G expense is mainly on account of electricity duty payable and the details are given in the section 7.5 of the ARR.
Other expenses The objector request the Commission to allow the other expenses as Rs 109 crores, the same approved by the Commission in the ARR for 2006-07	Board has explained in detail the methodology adopted for estimating the other expenses in the section 7.7 of the ARR. Board as a commercial establishment have taken into account the expenses and income related to prior periods and also have to write off the bad and

	doubtful debts. So, the Hon'ble Commission may reject the proposal of the objector and kindly approve the same as estimated by the Board.
Summary The objector has arrived a surplus of Rs 487 crores against the revenue gap of Rs 430 crores estimated by the Board.	As explained above, the objector has arrived at revenue surplus through numerous under estimations of various expenses as well as over estimating the revenue receipts. As pointed out, these figures provided by the objector are only hypothetical, imaginary and far away from reality. In case such a package is adopted, it can only help to shatter the financial viability of the Board and block its ability to under take various developmental activities to provide quality power at affordable cost with minimum interruptions. KSEB cannot give any undue preference to any specific category of consumers. It has to consider the social obligations and directions of the State Government. So, it is requested before the Hon'ble Commission to reject the objections raised by the respondent framed with a view to have monetory gain for the above consumer group at the cost of other segments of consumers especially the majority consumers constituted by the domestic category. It is requested that the Commission may kindly approve the ARR figures as estimated by the Board.
A6 Tariff Rationalisation	
Load factor incentive (Para 6.3 to 6.7 of the objection) The objector has requested before the Commission to provide load factor incentive and that may help in flattening the load curve and to shift the load from peak to off-peak hours	The Board is not against giving incentives to any category of consumers, provided any such incentive should not be at the cost of KSEB or any other consumers. Load curve flattening, load curve betterment etc are ideal options for improving efficiency. But in the real world incentive/penalty need not always be panacea to the problems. Such schemes already in force viz, ToD pricing, PF incentive and its direct impact in the peak demand flattening, drop in system demand etc are not appreciable. Every state/region will have its own unique characteristics reflecting in the electricity demand and consumption also. KSEB system is entirely different from the power system of the other southern states on account of various aspects like social, cultural, economic, demography, consumption patterns etc. So, the incentives or penalty schemes existing in other places cannot be copied as such without conducting extensive studies with reference to the KSEB system .
Power factor incentive (Para 6.8 to 6.14 of the objection)	As directed by the Hon'ble Commission, KSEB has introduced power factor incentive to HT&EHT consumers. KSEB has been studying the benefits of KSEB on implementing the same. It may noted that, as a hydel predominant state, KSEB can easily manage the power factor corrections with KSEB's hydel plants and it is found much cheaper than power factor improvement through providing incentives. Also, KSEB has installed our own capacitor banks in number of substations towards improving voltage and power factor and the benefits through the same is also being studied in detail.

Bulk consumption discount (Para 6.15 to 6.18)	More than commercial principle, social factors have to be given consideration. In a power deficient state, providing bulk consumption discount can be considered only after extensive studies.
Prompt payment incentives (Para 6.19)	At present KSEB is not allowing any incentive for prompt payment, but allowing discount for advance payment. It may noted that, it is the primary responsibility of each consumer category to make the payment on before the due date for the electricity consumed by them. Financial reward will not be a sustaining motivator to make prompt payment and conceptually also it is not fair to provide incentive towards payment of the service received/ rendered. So KSEB is not for any incentive system for prompt payment..
TOD Tariff (Para 6.20 to 6.23 of the objections) The present TOD pricing scheme does not adequately give incentives for shifting load from peak hours to off-peak hours. The objector has requested the Commission to fix the cut off limit at 20% of the total energy consumed and the rate of rebate at 40%. At present the TOD incentives only for energy charges and the same may be extended to demand charges also. The Board is not providing TOD data to the HT&EHT consumers for carrying out cost benefit analysis of TOD incentives.	KSEB may look into the proposal of the respondent and happy to revise it, if the same is advantageous to the Board also. But it requires detailed study and analysis. The purpose of the demand charges is to recover a portion of the infra structure the Board has created for providing service to the consumers and it is entirely different from energy charges. So KSEB is not willing to offer incentive scheme for demand charges The Board has already issued necessary directions to give TOD data to all needy consumers at cost basis. The respondent may collect the details of the offices from where the data is not received and the same may be communicated to the Board.
Average cost of supply and cost to serve (Para 6.24 to 6.48) Respondent claims that the provisions in the tariff policy directing to fix the tariff according to average cost principle is inconsistent with Electricity Act 2003. The respondent has requested the Commission to rationalise the existing tariff based on the following factor (a) Voltage differentiation (b) Time of usage (coincident peak) differentiation (c) Loss differentiation (d) Load factor differentiations etc The respondant also direct to arrive the tariff based on cost to serve of each category of consumers instead of average cost principles	GoI, MoP has notified the 'Tariff Policy' vide the Gazette No. 23/2/2005-R&R (Vol.III) dated 6th January 2006, in compliance with section-3 of EA-2003. Section-8.3 of the Tariff policy is dealing with tariff design and 2nd paragraph of section 8.3 is clearly specified that by the end of the year 2010-11, the tariffs are with in +_ 20% of the average cost of supply. But the objector has some concern against the base as 'average cost' fixed in the tariff policy and comments on that basis is not in order. The objector is continuously demanding for revising the tariff based on cost of supply. It may noted that, in a state like Kerala, if true cost of supply is implemented the tariff of different categories of now subsidised on account of social reasons, such as the domestic consumers, orphanages, agriculture etc will be increased drastically which will create numerous social problems. Considering these, the State Government has issued policy directions that the present level of subsidy and cross subsidy shall be continue for some more time.
3. Er. Madhusoodhanan C.G, Engineer, Thaikkattussery	
Transmission and Distribution loss reduction	The Board has been taking earnest and sincere efforts to reduce the T&D loss and KSEB was able to reduce the internal T&D loss from 30.76% in 2001-02 to 22.96% during 2005-06, i.e, a loss

	reduction of 7.8% during the last four years. KSEB has been targeting to reduce the loss to 19.72% by the end of 2007-08. As mentioned by the respondant, KSEB was able to achieve the loss reduction through various technical and commercial loss reduction programs. The estimate of the land requirement for improving the LT-HT ratio from 6:1 to 1:1 is being arrived based on the norms for way-leave clearances of HT lines. At corporate office of the Board, KSEB has been doing load flow studies to estimate the anticipated benefits through loss reduction programs and voltage improvement etc before implementing new substation and lines. KSEB is giving serious attention/ consideration to the valuable, practicable, implementable and economically viable suggestions of the stake holders.
Auxiliary consumption	Auxiliary consumption is the energy requirement for the generating station supplies and other allied requirements. The energy use at colonies etc are not auxiliary consumption and it is being metered separately.As per the international standards, the normative value of auxiliary consumption of hydel plants is the 0.5% of the energy generated. This is also being adopted by CERC in its regulation on 'Terms and conditions of Tariff' for the period 2004-09. The actual auxiliary consumption of KSEB hydel plants for the year 2005-06 was 0.41% only. For estimating the auxiliary consumption of 2007-08, KSEB has adopted the norm of 0.5% of the energy generated as auxiliary consumption.
4. S. K. Unnikrishnan Nair, Revathi, Parayil Road, Elamakkara, Kochi	
KSEB has not given the details of generation, transmission and distribution and losses in the ARR	The details are given as Table 5.1 of the ARR
During the last two years, KSEB has given revised estimate after issuing orders by the Commission.	The ARR for the ensuing year (prepared by KSEB as well as approved by the Commission) is an estimate prepared based on the past trend. There are various parameters such as energy demand, hydro availability, fuel cost, interest rates and cost etc including rainfall which are subject to change during the actual course of action. The revised estimate for the year 2006-07 is the estimate prepared based on the actual trend up to September-2006 and this is more close to the actual than the ARR approved by the Commission. If KSEB sticks on the figures approved by the Commission through ARR, then KSEB will definitely have to introduce various restrictions through power cut, load shedding and also on developmental activities in the state.
Item No.5 (a) & (b)During the year 2005-06, KSEB has sold energy the tune of Rs 196.51 crores outside the state	As per the section-86 of the Electricity Act-03, KSERC is empowered to give suitable direction for the optimisation of generation and power purchase of KSEB. During the year 2005-06, KSEB has received

and for the year 2006-07 Commission has directed KSEB to sold energy for Rs 150 crores. (c) The generation from thermal sources for the year 2006-07 is three times that for 2005-06.	good rainfall than expected, resulting into increase in hydel generation than estimated. It may be noted that there was no mechanism to predict the monsoon, the quantum of rainfall and inflow accurately. As part of effective utilisation of resources, with the approval of KSERC,he surplus energy available has been sold outside the state at better rates. KSEB is scheduling the generation strictly based on the merit order of despatch. Also, in certain period of the year, KSEB has to depend on its own thermal stations (BDPP and KDPP) to meet the peak load requirements. The month wise details of the generation from BDPP and KDPP is given as Annexure 6(1) of the ARR. The generation from BDPP and KDPP is restricted only to absolute necessity.
(d) The details of the energy sale outside the state is not given in the ARR.	The details of the energy sale outside the state is given as Annexure 6(1) of the ARR
Item No.6	It seems the respondent has not fully conceived the facts about the cost of electricity at generation end and at distribution end (at the consumer end) given in the ARR. For every unit of energy delivered to the consumer, there is a cost of about Rs 1.60 as transmission and distribution cost. The energy sale out side the state is from KSEB periphery and transmission and distribution cost is not involved in the transaction. For the year 2005-06, the average cost at generation end was about Rs 2.00 per unit only. So, by the sale out side the state at Rs 3.00 per unit, KSEB was able to earn a savings of Rs 1.00 per unit. But, KSEB's first and foremost priority is to sell energy to its consumers within the state and resort to sale outside the state only when there is energy surplus.
Item No.7	The argument of the respondent is wrong. The figure Rs 43.09 Cr is the fuel cost for the generation from KSEB's own thermal stations BDPP and KDPP.
Item No.8	The details are given in section 7.8 of the ARR
Item No.9	Please refer Table 7.39 and 9.1 of the ARR.
Item No.10	The consumption of the KSEB offices are metered and accounted separately as energy sale. The objection of the respondent will not sustain.
Item No.14	The auxiliary consumption is the energy consumption in the generating station which include station supplies and other ancillary services.

5 Sri. Ravi. S. P., Secretary, Chalakudy Puzha

5 Sri. Ravi. S. P., Secretary, Chalakudy Puzha Samrakshana Samithi	
Item No.2 The petition by KSEB shows a sudden surge in consumption in the last couple of years. Has the KSEB or Regulatory commission has done any analysis on the same?	The details of the present trend of increase in energy demand and the methodology adopted for the estimation of the energy sales for the year 2007-08 is given in Chapter-4 of the ARR. KSEB propose to do a more detailed analysis on the increase in energy demand of each cateory of consumers and the details will be made available once the same is completed.
I tem 3(b) Financial viability of the proposed Athirappilly project	Central Electricity Authority (CEA) had issued Techno Economic Clearance (TEC) for the project during March 2005, after considering detailed evaluation of the financial viability of the project.
Item No.4 KSEB is not giving due consideration for the energy conservation activities	KSEB has been giving due consideration for the energy conservation activities. KSEB, Energy Management Centre, Energy Conservation Society, etc have jointly undertaken numerous campaigns propagating the concept of energy conservation. Replacement of all the bulbs with CFL will lead to harmonics in the system and it is harmful to the transformers and generators.
Item No. 5 Many experts have suggested several methods and strategies for reducing the peak load demand of the state so that the system management can be made better.	Alarmingly increasing peak demand is a very serious concern of the Board. KSEB is inviting valuable suggestions from all stake holders for the strategies to reduce peak demand.
Item No.6 Provide the details of electricity purchased each year, the fixed cost paid, the variable cost paid and any other payments made with respect to NTPC Kayamkulam and BSES Kochi since their commissioning.	The details are given below

Total Fixed cost and Variable cost paid towards NTPC- KYLM power

Year	Capacity allocation	Energy purchased	Fixed cost*	Variable cost*	Wheeling charges*	Total*
	(MW)	(MU)	(Rs.Cr)	(Rs.Cr)	(Rs.Cr)	(Rs.Cr)
1998-99	360	243.17	62.12	57.87	8.73	128.72
1999-00	360	1171.69	129.78	377.16	25.61	532.55
2000-01	360	1904.38	231.85	571.93	36.06	839.84
2001-02	360	1280.13	216.74	344.62	28.55	589.91
2002-03	360	1857.53	216.72	500.01	28.34	745.07
2003-04	360	1034.75	127.27	273.22	35.38	435.87
2004-05	180	54.25	113.59	17.21	36.06	166.86
2005-06	180	0.46	114.59	1.82	36.09	152.5
2006-07 (upto Nov-06)	180	0	66.25	0	22.24	88.49
Total		7546.36	1278.91	2143.84	257.06	3679.81

Note

The figures may slightly subject to change by CERC final orders on Tariff

The figures may slightly subject to change by CERC final orders on Tariff

Total Fixed cost and Variable cost paid towards BSES power

Year	Capacity allocation	Energy purchased	Fixed cost	Variable cost	Other claims	Total*
	(MW)	(MU)	(Rs.Cr)	(Rs.Cr)	(Rs.Cr)	(Rs.Cr)
2000-01	157	22.96				10.31
2001-02	157	208.33				162.39
2002-03	157	304.64				127.82
2003-04	157	992.21	120.00	244.20		364.2
2004-05	157	110.11	120.00	32.79		152.79
2005-06	157	36.69	102.00	13.35	80.00	195.35
2006-07 (up to Nov-07)	157	72.92	67.50	39.75	62.17	169.42
Total		**1747.86**	**409.5**	**330.09**	**142.17**	**1182.28**

Note

The figures may slightly subject to during the settlement of final bills.

6. State president, Kerala State Small Industries Association

1. ARR of the year 2007 to 2008, there is no cash loss because the depreciation value Rs 460.20 crore is above revenue gap	Depreciation is the loss in value of the assets due to its continuous usage. The old assets are required to be replaced after their useful life. Also, KSEB is targeting for an yearly capital investment of Rs 1000 crores and a portion of the same is to be met from internal resources. Depreciation is used as a source of fund for meeting the internal resources required for replacing the old assets and new investments and it cannot be used as an income.
2. The expense of purchase of power is shown as Rs 2020.39 crore against which receipt from sale of energy outside the state is not shown.	In Chapter-8 of the ARR, KSEB has estimated the revenue from sale of 12294.10 MU of energy as Rs 3753.07 crores. The expense for purchase of power of Rs 2020.39 crores is for the purchase of about 55% of the total energy requirement of the State. Sale of power outside the state is being done only when there is surplus power which may otherwise be wasted as spill water from KSEB hydel plants or surrender from Central Generating Stations.
3. There will be a surplus of Rs 900 crores as per KSEB account itself.	The statement of the respondent on the above grounds is wrong. The estimate with details of the various expenses and income of the Board for the year 2007-08 is given in the ARR.

7. Janardhanan, Secretary, Kodungallor Meghala Janakeeya Koottayma, Vazhinadakal,Madavana P O

Item No.2 The Employee cost in the KSEB is on the higher side.	Considering the geography and vegetation of the state, the present employee strength is not sufficient to maintain the power system, to attend the routine maintenance etc. About 5 lakhs new service connections are being added annually. For providing new service connections and maintaining the supply system in tune with increase in energy demand and consumer strength, additional man power is required in every year. The wage structure of KSEB employees is as per a negotiated settlement with trade unions. The employee strength, consumption growth etc are comparable with similar utilities.

Item No.3 KSEB shall control the wastage of the Repair and Maintenance cost	Considering the age of the assets, the R&M cost provided to maintain the assets in use is just bare minimum and in majority cases, it is far below the norms fixed by the CERC
Item No. 4 & 5 Strengthen the store system. Control the malpractice in estimation and contracts	The views of the respondent are noted for consideration.
Item 4.1, 4.2, 5,6 and 7	The objections raised by the respondent is not related to ARR, but the same is being forwarded to the concerned offices for corrective action.
Item No.8 Other expeses	Board has explained in detail the methodology adopted for estimating the other expenses in the section 7.7 of the ARR.
8.Sri. P C Asharaf, President,Vyapari Vyavasayi Ekopana, Samithi, Thamarassery	
Supply interruption & low voltage.	Even though the matter is not related to ARR & ERC for 2007-08 the Chief Engineer (Dist. North) was instructed to take necessary corrective measures
9. P.Bhaskaran, C-17, Haritha Nagar, P O Chevarambalam, Kozhikode-673017	
Simplified procedures for change of ownership.	This matter will be dealt with separately. This is also not directly related to ARR & ERC.
10. Sri.Vinod Panicker, Executive Vice President (F&A), Asianet Satellite Communications Ltd.	
The response from Asianet is basically their grievance in tariff classification. According to the firm they are now classified under LT Commercial tariff as per prevailing tariff order whereas information technology is classified under LT IV in tariff order. It is also contended that classification of satellite communication and cable TV network under commercial tariff along with commercial establishments like hotels, business houses, showrooms etc. is illogical. It is also claimed that the services provided by them is a necessity. It is also stated that cinema houses which provides some what same service are classified as LT VII(C) where as cable TV is classified under VII(A). It is also arbitrarily stated that LT VIIA consumers are using captive diesel generators due to its low cost even when KSEB power is available in their premises. It is suggested to rationalize the VIIA tariff with cost of power from captive power units. Another suggestion for improving revenue is to prevent pilferage and transmission bottle necks.	From the response it can be seen that the consumer himself is confused as to where he really stands. At one point he states that activities under taken are in the IT sector and hence industrial tariff should be made applicable whereas the fact is that both the activities undertaken viz; cable TV network and satellite communication are commercial in nature. The same consumer claims his cable TV activity is similar to the service provided by cinema houses and hence at least VII (C) tariff should be made applicable. As regards the claim that LT VIIA consumers are using electricity from captive diesel generators due to its low cost even when KSEB power is available is without any proof and does not seem to be based on facts. This is because such consumers will be liable to pay fixed charges to KSEB even if they are using power from captive D.G sets, which will be a loss to them. Also the cost mentioned for power from captive D.G sets as Rs 5.00 per unit may not true since present cost of diesel is above Rs 34/- and minimum fuel requirement is about 200ml for one unit of electricity production. The tariff for any category is fixed based only on the purpose for which energy is put to use. Since the activities under taken by M/s Asianet viz. cable TV & internet are on commercial basis, there is no ground for considering them for any other tariff classification.
11. C.P.Thomas, Rtd.C.E, KSEB	
The response is regarding payment of subsidy by State	Commission may request the Government to provide subsidy

Government. It is suggested that Commission may take up matter with Government to revise the Government decision of not to give subsidy to Board.	for covering financial loss incurred due to implementation of specific policy directives by Government in tariff matters.
The response suggests steps for reducing peak demand by insisting to use inverters during peak by high end domestic consumers consuming more than 500 units / month and also for metering using ToD meters for such consumers. It is also suggested to educate consumers the need for energy conservation. Further ToD meters are suggested for LT industrial consumers and for charging time of use charge at higher rate for peak consumption.	The practicability of the above suggestion is poor because energy efficiency of the inverter system is very low and it injects heavy harmonics burden to the system. The cost of inverter and ToD meter is to be borne by the consumer. Hence an off hand calculation based on the above as projected in the response cannot be accepted. Also the effect of harmonics due to wide spread usage of CFL lamps is to be studied properly. As regards suggestion for time of use charges for LT IV industrial category the same should be debated and opinion from the stake holders is to be considered
12. The Vice President, Vyapari Vyavasayi Ekopana Samithi, Vyapara Bhavan, Manjalikulam Road, Thiruvananthapuram	
Reducing Distribution & Transmission losses by proper maintenance of lines, removing touching & tightening lines	KSEB is following regular maintenance schedule to minimize loss
Regulate luxurious use of electricity for domestic application and control the usage of electricity for commercial advertisements.	Society at large has a major role and it is difficult to regulate the above through external controls.
Controlling the concession in current charge offered to consumers below poverty line.	Tariff change for individual category of consumers does not come under the scope of ARR & ERC appraisal and such matters shall be dealt with separately.
Proper control of electricity during peak hours for LT Industrial consumers.	Strict regulations including APTS have been enforced to prevent usage of power load during peak hours.
ACD stoppage	As per KSERC approved Supply code, the short fall in Security Deposit can be demanded from the consumer by way of ACD.
13. V. Sukumarapillai , Advocate, Attingal	
Non realisation of arrears of crores of Rupees from HT&EHT consumers in Kerala.	KSEB is aware of these facts and taking very serious efforts to realise the arrears from each category of consumers. But almost all the defaulters had approached the upper courts and obtained stay orders against disconnection of services. But KSEB has taken active measures for early disposal of numerous court cases.
14. .T P Vasu, President, Kozhikode District Cine Exhibitor's Association, Kozhikode.	
Change in electricity tariff	The issue will be dealt with separately.
15 . The Deputy Director, Govt. Guest House, Ernakulam	
Request for change of tariff from HT-IV to LT domestic for Guesthouses.	The issue of change of tariff will be dealt with separately.

16. Sri. S. Rajan, Neyyattinkara	
The response relates to certain grievances supposedly faced by general public and is not related to ARR&ERC for 2007- 08. Moreover the points raised are supported by some old news paper cuttings pertaining to the year 1996..	No specific comments are made
17. A.P.M. Abdul Rahim, State President, KSSIA	
The request is for retaining the maximum contract demand for LT consumers as 150 kVA	The maximum contract demand for LT consumers is fixed at 100 kVA as per Kerala Electricity Supply Code
18. Sri. ML. George, Kochi	
In the response it is requested that the actual expenditure for 2005-06 presented by the Board are to be objected. There are also few generic statements alleging corruption etc. are made without any proper supporting document.	It is pointed out that the actuals are based on the accounts audited by the CAG and no further variations can be made by any other authority.The other points merit no specific comment
19. V. Sukumarapillai , Advocate, Attingal	
Non realisation of arrears of crores of Rupees from HT&EHT consumers in Kerala.	KSEB is aware of these facts and taking very serious efforts to realise the arrears from each category of consumers. But almost all the defaulters had approached the upper courts and obtained stay orders against disconnection of services. But KSEB has taken active measures for early disposal of numerous court cases.
20. Dr. T. Balachandran, President, Kerala Consumer Service Society, Kochi	
Response is about delayed submission of ARR, structure of the Board, truing up petition, requirement of audit by CAG etc.	The response made regarding the time delay for submission of ARR &ERC for 2007-08 etc are made without proper information about the facts and situation. The accounts of the Board are being audited by the concurrent audit wing of the CAG and Board is relying on these audited accounts for revision of the estimates
21. Sri. C. P. Thomas	
No clear instruction for the admitability of Minimum Guarantee in the case of Industrial Consumers among the field staffs	Clear instructions for minimum guarantee service to industrial consumers have already been issued to field offices.
Pending Industrial connections should be cleared.	Strictly in the order of priority, electricity connections are provided.
22. Sri. S. R. K. Rasalam, Chairman, The Institute of Engineers (India), Thiruvananthapuram	
As per the direction of the State Government, the Commission has reduced the tariff of domestic and commercial category of consumers by 20 paise per unit and also reduced the tariff in the cases of offices of political parties coming under HT category by securing demand charge from Rs 300/kVA to Rs 175/kVA and energy charges from Rs 3.00 per unit to Rs 1.75 per unit.	As per the direction issued by the GoK and subsequent order of KSERC dated 5-1-2006, KSEB has been collecting the tariff of domestic and commercial category of consumers after allowing a rebate of 20 paise per unit. KSERC has directed the Government to release the revenue shortfall due to the same as subsidy in equal monthly instalments, but the Government vide GO (Ms) 33/06/PD dated 16-12-2006 has declined to release any subsidy

The shortfall in revenue due to reduction in tariff was Rs 120 crores in 2006-07 and Rs 135 crores in 2007-08. The projected revenue gap for 2007-08 is Rs 430.11 crores for 2007-08 and the revised estimate of revenue gap for 2006-07 is Rs 230.19 crores. About 30 to 35% of the revenue gap can be bridged if the GoK transfers the amount lost by the Board due to the unjustifiable order of the Government.	on this account. KSEB is still allowing a rebate of 20 paise per unit to the above mentioned consumers and will continue the same till the Commission issues further orders to stall the above rebate.
The Board's expectation of revenue, it appears prima-facie to be too ambitious to achieve as the new connections and the expected meter hire charges also add to expenditure for procurement of the meter as well as materials for giving connection.	Board has taken extreme care and caution to realistically estimate the revenue from charges. As rightly pointed out by the respondent, there are numerous items, cost of which are out of control of the Board.
The concession of 20 paise per unit, probably ordered in the wake of comparatively better rains the state received last year is likely to be a burden on the Board for the years to come as the same amount of inflow cannot be expected every year.	As per the weather forecast, the year 2007-08 is likely to be a draught year in comparison to the previous years. KSEB has estimated the hydel generation for 2007-08 based on the last 10 year average inflow. But, many of the stakeholders including HT&EHT association is for increase in target hydro generation based on the last year hydel generation on account of the copious monsoon received. But, as rightly pointed out by the respondent, KSEB cannot expect same rainfall and inflow in the last year. So, the reduction of tariff on account of the better rainfall received in 2005-06 is likely to be a financial burden on the Board in the coming years.
The Government shouldn't have ordered the reduction in tariff, since any amount of financial gains the KSEB might make, would not be sufficient to provide the consumers with quality of power it is supposed to give as there is vast scope for improvement of the system especially in the distribution sectors. The consumer service has also to be improved. The manpower in the technical as well as non-technical department have to be increased. Planning and execution of on-going works and planning of new projects in the Generation sector, especially hydel projects, has to be given more attention. All these requires sound financial footing.	As pointed out by the respondent, KSEB has been implementing various developmental activities in generation, transmission and distribution sector in a balanced blend to provide quality power at affordable cost to the consumers of the state. KSEB has planned an yearly capital investment to the tune of Rs 1000 crores in these sectors. The State Government and KSEB has been giving more attention in developing hydel projects in the state. All these requires sound financial footing.
23. M. Ravindran Nair, Executive Director, CONTIPS, Consultants to Suzlon Energy Ltd	
The respondent has pointed out that, the energy from renewable sources like wind has to be encouraged and promoted. Merit order scheduling cannot be adopted for energy produced from renewable sources. In order to promote such renewable sources, it may be operated as a must run station as atomic power stations. In the ARR&ERC submitted by KSEB nothing was mentioned about the purchase of power from windmill though there is a proposal to generate at least	KSEB is not against purchase of energy from wind sources if it is affordable to the consumers of the State. But the purchase of energy from wind may not impose any restriction on the existing generation sources of KSEB such as spillage of water, surrender of central share etc. It may be noted that, even though atomic stations are operated as must run stations, their availability is firm and generation is continious and the cost also affordable. But, the availability from wind is seasonal and

20MW during 2007-08. it may also be noted that there is an estimated potential of 600MW and may be added to the Kerala system in the near future.	unpredictable. Even during the high wind period, the availability from wind cannot be predicted. So, KSEB cannot plan its generation requirement in anticipation of energy from such sources. But, energy from wind cannot be treated as a supplementary source. It may noted that, with the available information, the cost of energy from wind sources is much more than that from other energy sources of KSEB including power from CGS. In most other states, wind is developed as Captive plant for their own use. So, the critical factors such as consistency, availability, comparative cost, reliability shall also to be considered in purchase of power from such sources.So far, one developer has approached KSEB with a preliminary proposal for development of wind power. The developer may have to approach the KSEB and KSERC with all details of each plant such as installed capacity, expected date of commercial operation, monthly energy availability, evacuation details, cost details etc and have to enter into PPA with KSEB for power purchase. Since the developer has not furnished these details, KSEB is not in a position to include the same in the ARR for 2007-08.
24.. Ramachandran, Kozhikode	
The respondent has raised certain issues, which has lead to heavy loss to the Board. He has requested before the Commission to direct the Board and Government to reduce the expenditures, save energy and fix the tariff based on actual cost.	The issues raised by the respondent are not related to the ARR, however the same were noted and shall be taken care of.
4. Chairman, Guruvayoor, DevaswamThe respondent has requested for the tariff change of the street lights in the staff colony of the Guruvayoor Devaswam, which was now billed under commercial category.	The issue is not related to ARR and the respondent may take up the issue separately in appropriate forums.

ANNEXURE - II

KERALA STATE ELECTRICITY REGULATORY COMMISSION
MINUTES OF THE THIRTEENTH MEETING OF THE STATE ADVISORY COMMITTEE

HELD ON 20.12.2006
AT GOVT. GUEST HOUSE, THYCAUD, THIRUVANANTHAPURAM

Present

1. Shri.C.Balakrishnan, Chairman, Kerala State Electricity Regulatory Commission.
2. Shri.C.Abdulla, Member, Kerala State Electricity Regulatory Commission.
3. Shri.M.P.Aiyappan, Member, Kerala State Electricity Regulatory Commission.
4. Shri.K.S.Velayudhan, Member, Kerala State Electricity Board
5. Shri.M.Sivaraman, Director, Centre for Management Development
6. Shri.J.Mammen, Dy. General Manager(Commercial), NTPC
7. Shri.T.Elangovan, Director, NATPAC
8. Shir.M.Ravindran Nair, Executive Director, CONTIPS
9. Shir.N.T.Nair, Chief Editor, Knowledge House, Trivandrum
10. Shri.S.Girijathmajan, Additional Secretary (Power), Govt. of Kerala, Thiruvananthapuram
11. Smt. Beena.K.S., Chief Electrical Inspector
12. Shri.S.R.K.Rasalam, Chairman, Institution of Engineers (India)
13. Shri.A.P.M.Abdul Rahim, President, Kerala State Small Industries Association
14. Adv. K.G.M.Nair, Founder General Secretary, Kerala Upabhokthru Samrekshana Samithi, Trivandrum
15. Shri.M.R.Narayanan, President, Chamber of Commerce
16. Shri.E.M.Najeeb, President, Trivandrum Management Association
17. Shri.K.Viswanathan, Director, Mithraniketan, Vellanad, Trivandrum
18. Shri.M.S.Rawther, General Secretary, Kerala Electricity Employees' Confederation (INTUC).

The Secretary, Food Civil Supplies and Consumer Affairs Department, Shri.T.Naziruddeen, President, Kerala Vyapari Vyavasayi Ekopana Samithi, The Managing Director, Kinfra Export Promotion Industrial Parks Ltd, did not attend the meeting.

The meeting started at 10.30 hrs.

Shri.C.Balakrishnan, Chairman of the Commission and Advisory Committee extended a warm and hearty welcome to all the participants. The Agenda items were taken up for discussion after self introduction by the members.

1. The minutes of the twelfth meeting of the Committee held on 31st July 2006

Chairman requested the members to offer their comments on the minutes of the last meeting held on 31st July 2006. Since no comments were raised in the meeting the minutes was passed unanimously.

2. Regulations issued by the Commission since the last meeting

Chairman informed that since the 12th meeting, two Regulations

viz. KSERC (Licensees' Standards of Performance) Regulations, 2006 postponement of enforcement in KSEB and KSERC (Terms and Conditions of Tariff for Distribution & Retail Sale of Electricity Under MYT Framework) Regulations, 2006, were issued, the details of which were taken up for discussion.

2.1 KSERC(Licensees' Standards of Performance) Regulations, 2006- Postponement of enforcement in the case of KSEB

Chairman stated that in the light of the discussions in the last advisory Committee meeting it was decided to postpone the implementation of KSERC (Licensees' Standards of Performance) Regulations, 2006 by another 6 months in KSEB for enablin

All other Distribution Licensees in the State were to implement the above regulation with effect from 1.11.06.

2.2 KSERC (Terms and Conditions of Determination of Tariff for Distribution and Retail Sale of Electricity under MYT Framework) Regulation, 2006

Chairman stated that all the State Electricity Regulatory

Commissions were to implement Multiyear Tariff with effect from 1.4.07. But the Forum of Regulators has subsequently allowed time upto 1.4.08 for implementing the same in the absence of robust and reliable data. So KSEB has been allowed to submit the ARR & ERC for the single year 2007-08.

2.3 ARR & ERC of KSEB

The ARR & ERC of KSEB for 2007-08 was taken up for deleberations. All participants were requested to offer remarks on the various heads of ARR & ERC one by one.

Generation

Shri. M.Ravindran Nair

- In calculating the average inflow, the inflow for 2002-03 and that of 2003-04 may not be accounted as the inflow for 2002-03 and that of 2003-04 were comparatively very much on the lower side. Metrological projection do not anticipate such a draught spell in FY 08. By excluding these two years, the average inflow will be 6932 MU, which is about 500 MU more than KSEB estimation and appears to be more reasonable.

- Table 7.11 rate of Rs. 2.50 per unit seems to be on the higher side; this may be conformed. The table projects UI as 529.92 MU and a corresponding provision of 105.98 Crore., as per this UI rate would be about Rs. 2 per unit only.
- Provision for UI import as well as export may be reviewed separately.
- Provision for surplus sales to other states may be considered.

Shri. N.T.Nair

- Provision for power purchase from Non Conventional Sources is not separately shown (in compliance with the concerned regulations)
- Sale of power to outside states may be shown

Shri. M.R.Narayanan

- Kerala lags behind the other states in the share of Non Conventional energy, which shall be considered in the provision for power purchase. This would also encourage Non Conventional Energy based private power producers, as envisaged in the Policy and Act.

Shri. E.M. Najeeb

- Sale of power to out side state may be shown.

Shri.K.G.M. Nair

- Provision for power purchase from NCES based schemes can also avail substantial subsidy available from Govt. of India for NCES projects.

Smt.K.S. Beena

- Provision for power purchase from non Conventional Sources is not separately shown (in compliance with the concerned regulations)

Shri.S. Girijathmajan

- Government of Kerla is encouraging NCES based generation through "ANERT" and "EMC".

Purchase of Power

Shri. J. Mamman

- BSES has been given a schedule for generation of 110.09 MU where as Kayamkulam project had been given only 0.01 MU schedule for the FY 07-08. In the case of NTPC issued an additional allocation for 180 MW from Thalchar - II station having a variable cost of around Rs.0.42 only and the total cost at the bus bar was only around Rs.1.50 and even the delivered cost at KSEB periphery was even less than Rs.2/-which is one of the lowest rates in the country today. This cheaper power had been given to KSEB so that pooled rate of NTPC Kayamkulam power as well as Thalchar power would work out to a reasonable limit. In the case of BSES or other private IPPS such a facility was not available. So keeping in view of the spirit of this allocation and also the fact that there was only a marginal difference between BSES and Kayamkulam power, i.e in the order of Rs 0.20, his submission was that these two plants at least have to be clubbed together for the purpose of scheduling. He further stated that Kayamkulam should be given a preferential treatment in scheduling because of additional allocation of 180 MW cheaper power. He also informed that a written submission had been handed over to the Hon. Commission in this regard. He also requested that in view of the heavy demand of power in various parts of the country Kayamkulam Power pooled with other surplus power available might be offered for bid in interstate trading. The pooled cost would be closer to the highest UI rate of RS.5.70. He mentioned that if surplus power would be there it should be sold. But the entire ARR should not be based on assuming the best of monsoon, and sale of surplus power as the very basis of Tariff.

Shri.T.Ealngovan

- RGCCPP,NTPC, Kayamkulam may review the option of “Water ways transportation of fuel” so that fuel transportation charges to the RGCCPP may be reduced, which in turn may reflect in cost of RGCCPP, NTPC, Kayamkulam power.

Shri.M.Ravindran Nair, CONTIPS

- Estimation of requirement of energy for FY08 needs to be rechecked. For e.g.only 9 MU shown as consumption of Railways; this may be much higher say, 16 MU by Jan,07, considering the commissioning of recent railway electrification projects.
- Captive generation is not being considered in power purchase; the Act/Policies also refer on availing power from CPP by licensees, especially to encourage power purchase from NCES and cogeneration based CPPs.
- While appreciating loss reduction of KSEB, Commercial loss reduction may be further pursued, so that power purchase could be correspondingly reduced.

Shri.M.R.Narayanan

- Power purchase from Kudamkulam is shown as effective from Jan 08.

  What about the Kudamkulam-Kochi transmission project for availing this power? Will it materialize.

Shri. N.T.Nair

- Means to increase hydel generation may be prioritized to reduce power purchase.

Shri. A.P.M. Abdul Rahim

Provisions for supply augmentation /less costlier generation such as the following are not shown in the ARR:

i. New major hydel projects, with physical and financial progress and targets.

ii. Natural Gas based power generation from RGCCPP, Kaymakulam, NTPC

iii. New Wind turbine projects of considerable capacity

Chairman, KSERC : Power purchase shall be as per the Commission's *approved merit order stack*

Member (E), KSERC: Existing Madurai, Trivandrum transmission line is

lightly loaded; therefore, even if kochi line is not commissioned, Kudamkulam power can be availed through Madurai line.

Interest and Finance Charges

Shri. M.Srinivasan

- Clarify, interst on PF, which amounts to Rs. 40 crore. Is it given by KSEB and also explain the utilization of PF by KSEB.
- More details may be provided regarding Source of funds and working capital.
- Generally in the payment terms of any trade agreement there used to be a clause on rebate, for e.g: 2% rebate for spot payment etc. KSEB shall clarify whether there are such clauses existing in KSEB's PPA with IPPS, CGS, traders etc?

Shri. M.Ravindran Nair

- Complimented KSEB for the reducing trend of interest and finance charges
- Borrowing vs. CWIP shall be linked: ie., borrowing, and in turn interest thereof, shall be linked with Capital Works.

Shri. N.T.Nair

- appreciates the KSEB's fincancial management as far as reducing trend of Interest and Financing charges over the years are concerned.
- Clarify the legality of utilizing PF fund by KSEB.

Shri. E.M.Najeeb

- refer page 83, Table 7.26: rate of interest on loan availed from Government is very high: this loan may be repaid and closed.
- Explore the option of repaying and closing all high interest rate bearing loans; even by paying pre-closure charges. This would be beneficial in the long run; it may be worthwhile to consider loans availed from REC, GoK etc.

Shri.M.R.Narayanan

Rate of interest on loan availed from Government is very high; it should be repaid and closed.

- All high interest loans shall be repaid and closed, even by paying pre-closure charges. High interest bearing loans from REC,GoK.etc.may be considered for early repayment and closure.
- Option of utilizing commercial real estate, tourism projects etc. for bringing down the financing cost need to be reviewed.

Shri. N.T. Nair

- There is still scope to reduce interest burden considering the high interest bearing loans from Gok, REC etc. , which shall be pursued by KSEB.

Shri. A.P.M.Abdul Rahim

- All high interest loans shall be repaid, as lower interest loans are available now.
- Interest is not being paid by KSEB on Security Deposit to all consumers, as stipulated in the Supply Code and provision shown in the ARR.

Shri. S.R.K. Rasalam

- Appreciated the efforts of KSEB in reducing the Interest and Finance charges over the years. However, further scope for reduction shall be pursued.

Shri. S. Girijathmajan

Provision for 4% rebate provided for consumers for advance remittance of energy charges, may not attract the consumers for making upfront advance payment. He suggested that higher rates might be thought of.

Depreciation and Other Components in the ARR&ERC Petition

Shri. J. Mamman

- CERC norms shall be followed for deprecation rates, as Forum of Regulators had already approved the CERC deprecation rates as applicable to distribution Licensees.

All SAC members

- SAC members unanimously suggested to follow CERC stipulated deprecation rates.

Shri. E.M. Najeeb

- Efficient use of human resources may be looked into.

Shri. J. Mamman

- KSEB may consider more provisos for renovation and modernization, in the wake of aging plants and equipments and improvement of capital assets
- Provision for R & M may consider the requirement of meeting the Standards of Performance regulations specified by KSERC.
- The capitalization may be improved on such expenses in tandem with the improvement in asset use efficiency

Shri. M. Srinivasan

- A detailed study may be conducted regarding manpower and employee cost reduction.

Shri. T. Ealngovan

- The terminal benefit of employees is amounting higher than the salary. KSEB may look for alternative methods to meet the cost of terminal benefits.

Shri. M. Ravindran Nair

- Provision for safety training of KSEB employees may be improved, especially that of contract workers/employees, as the accident rate is showing an increasing trend.
- Instead of cutting down the employee cost, there may be productivity-linked incentives/ payments than blanket salary and allowances hike.

Shri. N.T. Nair

- KSEB may resort to increase the share of outsourcing services in all possible areas.
- Safety training may be improved
- Modernization and technology upgrade may be intensively pursued, for improving the service quality, optimizing manpower utilization and overall performance

Shri. K. Viswanathan

- Accident rate is showing an increasing trend over the years, which may be seriously addressed with appropriate provisions in the ARR such as training, safe working environment, safety gadgets etc.

Shri. E.M. Najeeb

- Employee Cost reduction is as such a difficult task; a detailed HRM audit may be conducted with professional agencies/consultants. Measures to improve Employee productivity need to be explored, like the similar efforts being implemented in many PSUs.

Shri. M.R. Narayanan

Cost of terminal benefits of employees is a cause of concern in the ARR, necessitating review of alternative options

- Incentives based on the performance of employees may be implemented rather than hike in fixed salary.

Shri. N.T. Nair

- Employee cost accounts for about 20% of the ARR. At least alternative methods may be reviewed in the case of terminal benefits for newly recruited employees.
- Productivity norms may be evolved for the employees.
- Technological substitution for employee productivity improvements may be evaluated.
- Mindset of employees may be oriented towards productivity.

Shri. M.S. Rawther

- The figures given in the ARR are not factual. Escalation of power purchase cost and erroneous norms for deprecation are cited as example.

- Present employee strength is only two-third of the sanctioned strength and outsourcing for critical and technically intensive operations are objectionable from efficiency and safety point of view. Therefore reducing the employee strength is not a sustainable argument.
- The subject of terminal benefits is beyond the preview of this SAC.

Shri. A.P.M.Abdul Rahim

- KSEB may resort to outsourcing and reducing the employee cost. Much more critical and technical services are being outsourced these days in various organizations, including government owned firms.

Shri. S.R.K. Rasalam

- The special nature of Kerala' labour force may be considered
- Training of employees may be taken as very important.

Shri. S. Girijathmajan

- Table 7.31 of the ARR well describes the trend in employee cost over the years, which highlights the positive trend of the per unit employee cost.

Income

Shri. T. Ealngovan

- Sale of surplus power out side the state may be considered in the income

Shri. N.T. Nair

- Considering trend in the past years, income from outside state sale of surplus power may be considered.

Shri. K.S. Velayudhan

- Blending of less costly power with costly power from RGCCPP, Kayamkulam NTPC etc. and scheduling the same for outside sales/trading are in the active consideration of KSEB.
- The suppliers of the meters are assuring improved delivery of meters and Correspondingly KSEB expects to progress the replacement of faulty meters.
- Considering the special features of Kerala State, electrical accidents cannot be completely avoided. Thick vegetation is causing danger to the electrical lines. Also there were cases of charging of disconnected lines through generator sets and consequent accidents.

Chairman: We have discussed all the aspects of ARR & ERC. The ARR & ERC has been made available only recently and SAC members might not have obtained sufficient time for perusing it, Chairman requested that they should further study the proposal and offer their valuable comments early in writing. It may not be possible for conducting another meeting. Mr.Najeeb of Trivandrum

Management Association asked whether commission may obtain revised proposal from KSEB. Chairman stated that the views of members will be considered seriously while finalizing the ARR. Member (Engg.) stated that there will be public hearings at Kozhicode, Kochi and Trivandrum. Members may give information to respective stake holders and ensure maximum participation in public hearing. Apart from publication of approved ARR & ERC, Chairman stated that this year there would be a Tariff order considering the views expressed by the various stake holders and petitions received by the Commission. Sri. A.P.M. Abdul Rahim requested that the recent raising of KVA limit to 100 KVA for getting HT connection is causing great difficulties to prospective consumers and the limit should be made as 150KVA as in the past. Also he requested that TOD metering should be permitted for LT consumers also as in the case of HT consumers, so that consumption of power can be postponed to off-peak hours at reduced tariff rate. Standby motors should not be added to connected load and spared from levying fixed charges. He also requested that small enterprises who are actually using power for industrial purpose should be classified under LT IV in future. Chairman clarified on the points and stated that any change in already published supply code could be made through Code Revision committee. Sri. M.S. Rawther stated that even though KSERC had ordered that the subsidy amount for reducing domestic and commercial Tariff by 20 ps had to be released to KSEB by Govt. of Kerala, the amount had not been released yet. KSERC should persuade the Government to release the amount so as to save KSEB from financial crisis.

Chairman, KSERC, finally closed the discussions after assuring the committee that appropriate action would be taken on various issues raised by participants. He thanked all participants for actively taking part in the lively discussions.

ANNEXURE - III

List of persons attended the Public hearing on ARR & ERC for 2007-08 of KSEB Date: 2-1-2007 Kozhikode

1. E.C.Joseph
   Rtd. Dy. CE, KSEB
   House No.29/1192, Kottoole
   Kozhikode 673 016
2. A.K.Haridas
   CE (Rtd), KSEB
   "Harsham"
   Thondayad P.O Nllikode
   Kozhikode 16
3. Martin Joseph
   Elanjimattom,
   Calicut 673 016
4. M.K.Sudhakaran
   Dy.CE (Rtd), KSEB
   21/4164 A, Madakkuni
   Calicut 28
5. T. Nazirudeen
   State President
   K.V.V.E.S, Kozhikode
6. Jaiyil Job
   City Merchents
   Calicut
7. T.K.AwwAzeez
   Bazar S.M.Street
8. Babu Kunnoth
   General Secretary
   All Kerala Distributors Association
   Calicut
9. Abdul Xiazar
   Jilla Executor, Kozhikode
   K.V.V.E.S
10. L.Manjunath
    President
    AKDA, Vyapari Bhavan
    Calicut
11. J.P.Chandran
    AEE, O/o CE
12. P. Kesavdas
    Sr. Suptt.
    Ele. Circle, Kozhikode
13. Ramesan.M
    Sr. Asst., O/o Circle
    Kozhikode
14. T.V.Parameswaran
15. K. Kochunni
    Vellimadu Kunnu
16. E.J.Jose
    V.V.E.S, I.G.Road
17. M.T.Surendran
    Dy.CE, Ele.Circle
    Kozhikode
18. P.T.John
    Male House, Calicut
19. Vinod Kumar.P
    SE APDRP, Kozhikode
20. Nandakumar.K
    AE, APDRP
    KSEB, Kozhikode
21. A.P.Mohammed Haji
    AE, APDRP, KSEB
    Kozhikode
22. P.P. Aladeen
23. K.Santhoshmen
    Mankave P.O
24. V.M.Mammadkoya
25. K.P.Sreedharan
    Secretary
    KVVES
    Kozhikode
26. Shaji Sudhakaran
    AEE, Ele Division, KKA

27. Jaya Mathew
Sr. Suptt, Ele Divn
Kozhikode

28. P.Velayudhan
SS, Ele. Div.Kozhikode

29. Suresh Babu.M
Jr.F.CA

30. R.Jaya Chandran
Trivandrum

31. C.T.Divakaran
Sr. Asst. Ele Div

32. Nirmal Kumar.V
Sr.Asst. Ele Div

33. K.Kunchankutty
Sr. Supdt, Ele Div

34. Alphonse.R.J
DA, Ele Div

35. Viswanathan.N
Dy.Engg (Mathrubhumi)
Kozhikode

36. K. Asokan
Dy. CE Transmission KSEB

37. Subalal Padakkal
KVVES YMCA, President

38. Padavoor Balakrishnan

39. A. Rajan,

40. Raj West Hill

41. P. Bhaskaran
Harithanagar,
Chevarambalam
Kozhikode

42. Balachandran.V
EE, MIS

43. C.K. Balachandran

44. M.P. Sathyan
Rtd. AO, KSEB

45. Iyakunnathu Narayanan
Freelance reporter

46. P. Raveendran Nair
Mathrubhumi

47. Shahul Hameed
KVVES

48. P.C.Ashraf Thammusery
KVVES

49. C.N.Sivadasan
AKKTU

50. M.Ramachandra

51. K.C.Abu

52. K.P.AjithKumar

53. V.M.Mayivel

54. Aboobakar.E.P

55. Nizar
Chandrika Daily

56. P.Babu.M.M

57. V.C. Haris

58. K.M. Peter, Thamarassery

59. U.Abdurahman
K.V.V.E.S, Dt. G. Secretary

60. Rafeeque.P
Mavoor Road

61. C.P.Abdul Rahman

62. C.Vijayan

63. U.A.Firoz

64. Johnson Jacob, CE (C&T), KSEB

65. Ramesh Babu, Dy CE (TRAC)

66. Sivaprasad, AEE, TRAC

67. Renjith Kumar, AEE, TRAC

68. Girish Kumar.V.S., DA O/o FA

69. B.K.Preman

70. V.S.Venugopal, Nadakkave

71. P. Babu, KSEB
72. Biju K., Nadakkavu
73. Jagmohan. T
74. K. Suresh Babu
75. P.K. Prabhakara
76. Hriharan T.P
77. Velayudhan V.K.
    K.V.V.E.S
78. A.R. Sunil Kumar
    Nadakavu
79. K. Rajendran
    PVS Hospital
    Calicut

Date: 4-01-2007 Ernakulam

1. Dr.T. Balachandran
   President, Kerala Consumer Service Sty
   Kochi
2. V.K.Unnikrishnan
   Apollo Tyres Ltd, Kalamassery
3. T.P.Vivekanandan
   Dy.CE, Ele Circle, Ernakulam
4. V.C.Pillai
   Ex- Marketign Manager
   S.T.C. of India Ltd, Cochin
5. Sudhi.V.R
   Executive Engineer, KSEB
   Ele. Div Ernakulam
6. S.K.Parameswaran
   Secretay, HT & EHT Industrial Electricity
   Consumers Assn
   Kalamassery
7. Sreelatha.S
   Asst Executive Engineer, KSEB
8. R. Madhavan Nair

   Carborandum Universal
9. Shaji Sebastian
   Secretary, KSSIA
10. Beena
    Ele Div
11. Ravi Kumar.N
    E.E, Ele Circle, Ernakulam
12. George Thomas
    Advisor, Binani Zinc Ltd, Binanipuram
13. K.A.Nathan
    GM(Engg)
14. A.A.Mohammed Nawaz
    AVP(E&I), BinaniZic Ltd
15. P. Selvendran
    Manager (Ele)
16. S.K.Unnikrishnan Nair
    Revathy, 49/135A
    Elamakkara
17. K.K.George
    Consulting Engg 33,
    Gini Nagar, Cochin
18. A.P.K.Bava
    59/786, Krishna
    Swamy Road,Ernakulam
19. T.E.Thomas
    Pynumootil Ashoka Road
    Kaloor
20. Benny Joseph
    Janapaksham
    Centenary Road
    Kaloor, Kochi
21. Madhusoodhanan
    Chenangath House
    Thrissur
22. Kesavadas.V
    KSEB, Exe Engineer

Hariharan.T.P

23. P.A. Vasundhara

24. M.L. George
Committee Member
National Foundation for Consumer Federation Studies

25. Antony.V. Paul
Advocate 10A, 3rd Floor,
JANAPARSHAM, CLARION
Cochin

26. M.A. Balachandran
Dy. Director
Government Guest House
Ernakulam

27. K.Vijayan
H/No.12/575, Pandikudy
Kochi

28. Sethumadhavan

29. Johnson Jacob, CE (C&T), KSEB

30. Ramesh Babu, Dy.CE

31. Mini George, EE (TRAC)

32. P.V.Sivaprasad, AEE (TRAC)

33. Ranjith Kumar AEE (TRAC)

Date: 8-01-2007 Thiruvananthapuram

1. D.Jain Raj
Edacode, Nemom P.O

2. S.Parameswaran
S.P.Service Station
Thirumala, TVM

3. P.K.Divakaran
Secretary
A P Udayabhanu Trust

4. K.G.Gopakumar
Kavitha Super Service

5. Mariyil Krishnan Nair
Vice President
Kerala Vyapari Vyavasai Ekopana samithi
Thodupuzha

6. K.Balachandran
Chief Engineer, Distribution South
Power House, TVM

7. M.Ravindran Nair
Exe. Director, CONTIPS
TVM

8. K. Radhakrishnan

9. Adv.K. Sugunan
301, R.B.Towers, Vanchiyoor, TVM

10. V. Ranjit Kumar
AEE, TRAC,KSEB

11. Meharunnisa.M
AEE,TRAC,KSEB

12. Hema.
K, AEE, TRAC, KSEB

13. C.P.Thomas

14. P. Sreedharan
Udhayadeepam
Gandhi Nagar
Vazhuthacaud, TVM

15. Vinod Panikar
Asianet Satellite Communication
TVM

16. K. Kannankutty, NCC Nagar

17. C. Swarnappan

18. Johnson Jacob, CE (C&T)

19. Ramesh Babu, Dy CE(TRAC)

20. P.V. Sivaprasad, AEE (TRAC)

21. Mini George,EE (TRAC)

ANNEXURE - IV

Minutes of the fifteenth (special) meeting of the State Advisory Committee

held on 11.07.2007 At Govt. Guest House,Thycaud,Thiruvananthapuram

Present

1. Shri.C.Balakrishnan, Chairman, Kerala State Electricity Regulatory Commission.
2. Shri.C.Abdulla, Member, Kerala State Electricity Regulatory Commission
3. Shri.M.P.Aiyappan, Member, Kerala State Electricity Regulatory Commission.
4. Shri.N.T.Nair, Chief Editor, Knowledge House, Trivandrum
5. Shri.K.G.M.Nair, Founder General Secretary, Kerala Upabhokthru Samrekshana Samithi, Peroorkada, Trivandrum
6. Shri.A.P.M.Abdul Rahim, President, Kerala State Small Industries Association
7. Shir.M.Ravindran Nair, Executive Director, CONTIPS
8. Shri.D.K.Sood, Asst. General Manager, NTPC, Kayamkulam
9. Shri.K.K.Unni, Chief Electrical Inspector, Trivandrum
10. Shri.S.R.K.Rasalam, Chairman, Institution of Engineers (India)
11. Shri.K.Viswanathan, Director, Mithraniketan, Vellanad, Trivandrum
12. Shri.Ramesh Babu, Dy. Chief Engineer, TRAC, KSEB
13. Shri.K.P.Venugopal, Additional Secretary (Power), Govt. of Kerala, Thiruvananthapuram
14. Shri.M.S.Rawther, General Secretary,Kerala Electricity Employees Confederation (INTUC), Trivandrum
15. Shri.T.Elangovan, Director, NATPAC
16. Shri.E.M.Najeeb, President, Trivandrum Management Association

The Secretary, Food Civil Supplies and Consumer Affairs Department, Government of Kerala, Shri.T.Naziruddeen, President, Kerala Vyapari Vyavasayi Ekopana Samithi, The Managing Director, Kinfra Export Promotion Industrial Parks Ltd, Shri.M.Sivaraman, Director, Centre for Management Development, Shri.M.R.Narayanan, President, Chamber of Commerce, Member (Distribution),KSE Board did not attend the meeting.

The meeting started at 11.00 hrs.

Shri.C.Balakrishnan, Chairman of the Commission and Advisory Committee extended a warm and hearty welcome to all the participants. The Agenda items were taken up for discussion.

1. The Minutes of the fourteenth meeting of the Committee held on 15th May 2007

Chairman requested the Members to offer their comments on the minutes of the last meeting held on 15th May 2007.

The following omissions in the minutes were pointed out by the members:

i. Shri. N.T. Nair: Incentive for reduction in energy consumption for consumers were suggested with a specific view to promote energy conservation

   Shri. Abdulla, Member, KSERC cited that the same was incorporated in page 2 of the minutes.

ii. Representative of KSEB sated that views expressed by KSEB on supply code amendments were not incorporated.

iii. Shri. Rasalam: The suggestion that " on the other hand utility has to be competitive in power industry" was not placed on record in the minutes.

   Chairman stated that above points (ii) and (iii) would be incorporated; and as there were no more comments, the minutes of the 14th SAC meeting held on 15.5.07 was confirmed.

2. Discussion on "Proposals of KSEB on 'KSERC Draft Schedule of Tariff and Terms and Conditions for Retail Supply by KSEB with effect from 1-6-2007"

Chairman briefly explained the following background information pertaining to the ARR of KSEB.

The Commission has so far issued four Orders on ARR & ERC of the Board for the financial years 2003-04, 2004-05, 2005-06 and 2006-07.

The ARR & ERC for FY 2003-04 was submitted on August 1, 2003 and the Commission issued the Order on December 31, 2003 approving the ARR of Rs. 3697.37 Crore and total revenue of Rs.3141.37 Crore, leaving a gap of Rs. 556.46 Crore. The Commission recommended that the gap might be bridged by way of exemption from payment of duty (Rs.182.56 Crore) to the Government and release of subsidy provided in the Budget of the Government of Kerala in cash (Rs. 175 Crore), and grant of additional subsidy of Rs. 200 Crore by the Government. The ARR &ERC for the year 2004-05 was submitted on 15th December 2003 showing a revenue gap of Rs 854.19 Crore. The Commission in its order dated April 16, 2004 approved an ARR of Rs.3492.46 Crore and total revenue of Rs. 3196 Crore, leaving a gap of Rs. 296.46 Crore for 2004-05. The Commission recommended to the Government of Kerala to exempt the Board 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 provide the balance amount of Rs.96 Crore by way of revenue subsidy to the Board.

The ARR& ERC for the year 2005-06 was submitted on November 15, 2004 showing a revenue gap of Rs 492.25 Crore. The Commission in its order dated March 23, 2005 approved an ARR of Rs.3367.32 Crore and total revenue of Rs. 3316.01 Crore, leaving a gap of Rs. 51.31 Crore for 2005-06. The Commission approved the continuation of the existing tariff and other charges by KSEB for FY 2005-06, as the revenue gap of Rs. 51.31 Crore was less than 2% of the total revenue requirements.

The ARR& ERC for the year 2006-07 was submitted on November 30, 2005 showing a revenue requirement of Rs.3997.51 Crore and total revenue of Rs. 3694.73 from existing tariff and from non-tariff income, leaving a revenue gap of Rs. 302.78 Crore. The Commission approved an ARR of Rs.3680.43 Crore and total revenue of Rs. 3865.06 Crore with a surplus of Rs. 184.63 Crore. The Board did not comply with the Commission's directive to submit tariff petition and requested more time for data compilation and analysis.

In the ARR for FY 2007-08, the Board has projected the revenue requirement of Rs.4545.02 Crore and total revenue of Rs. 4114.91 Crore from existing tariff and from non-tariff income, leaving a revenue gap of Rs. 430.11 Crore. The depreciation proposed by the Board is Rs. 460.42 Crore, which is based on certain percentage rates as per the repealed Electricity (Supply) Act, 1948. As directed by the Commission, the Board submitted revised estimations for deprecation on 14.2.07 as Rs. 272.79 Crore, i.e. the depreciation rates specified in the CERC (Terms & Conditions of Tariff) Regulations, 2004 which has to be treated as the rates of depreciation as per the decision of the Forum of Regulators.

The Commission directed the Board to submit the tariff proposal for FY 2007- 08; as in previous years the Board was not complying with this directive and the Commission published a draft Tariff schedule, which was deliberated in the 14th SAC meeting held on 15.5.07. In response to the same, a proposal was submitted by KSEB on Draft Schedule of Tariff and Terms and Conditions for Retail Supply by KSEB with effect from 1-6-2007', which was forwarded to all the SAC members and incorporated with the documents of the current SAC meeting. In this submission, the Board reported the following revenue gap from 2003-04.

Year	Revenue gap (Rs. Cr)	Remarks
2003-04	450.97	As per audited accounts
2004-05	342.76	As per audited accounts
2005-06	144.58	Audit in progress
2006-07	230.19	Provisional
Total	**1168.50**	

KSEB vide letter No./KSEB/TRACTF-05/P/2/18 dtd 11.6.07, conveyed to the

Commission that financial implication to the tune of Rs. 371 Cr. has occured corresponding to power shortage of 960 MU in FY 08 and 172 MW (OFF-PEAK)/142MW(PEAK) as result of reduction in CGS unallocated share to KSEB.

Also, vide letter KSEB/TRAC/TRIFF-Rev-07-08/P/271 dtd 4.7.07 KSEB stated

that an additional expenditure on account of the pay revision and pension benefits would be about Rs. 125 Cr. per year; and the impact of revision of pay of the officers of the Board shall be intimated subsequently.

In this proposal, the Board seeks a substantial upward revision of tariff for certain categories in consideration of:

- the revenue gap over the years,
- the additional power purchase cost envisaged as a result of reduction in the unallocated share of CGS and
- the additional expenditure on account of the pay revision and pension benefits.

The Members of SAC expressed their opinion as given below.

Shri.M.S.Rawther

The financial position of the Board has been improving over the years showing a reducing trend in the revenue gap as per the KSERC findings and the report on performance of the public sector units in the State prepared by the CMD.

As per the Electricity Act, 2003 revenue deficit that would be incurred by a Licensee as a result of any welfare measures promulgated by the State Government has to be paid to the License by the State Government. This is the practice prevailing in other states. The shortfall in the revenue of the Board due to the Commission's Order dated 5.1.06, in the matter of reduction of the tariff for LT 1 (a) domestic and LT VII (A) and LT-VII (B) commercial consumers by 20 paise per unit effective from 1-1-2006 amounts to the tune of Rs. 180 Cr.; this order was based on the directive of the Kerala Government and the short fall in revenue should shave been released by the Government.

The Board has to prudently prepare its ARR, taking the confidence of the stakeholders; an excessive claim to the tune of Rs. 200 Cr for depreciation, without complying with the CERC norms is cited.

State government should release the subsidy due to the Board, shouldering the responsibility of the financial implication of welfare measures for the needy consumers in the State, with a commitment to keep the Board in the public sector. The increase in employee cost never calls for a tariff hike, albeit the same is comparable to that of other electricity boards in India.

Considering the above, there is no ground to justify a tariff hike to meet the projected "revenue gap" at this juncture. However, the question of too low tariff, comparable to that of similar consumer category in other States, such as the case reported by the Board for power intensive industries, may be explored in detail, with a view to increase revenue.

Shri.Raveendran Nair.M

The treatment of the difference between the revenue gap in Commission's Order of ARR& ERC and that in the CAG's audited report has to be decided by the Commission after detailed scrutiny. The CAG audit is normally acceptable; and if so the gap for the past four financial years would total to about Rs. 980 Cr. A one-shot tariff hike to meet this gap may not be advisable. Options such as regulatory asset, rational hikes in tariff for selective category, etc. may have to be resorted to by the Commission. The present proposal of KSEB aims at partly filling this gap.

An industry is called as "power intensive industry" based on the intensity of electrical energy utilization in terms of percentage share of electricity cost to the total cost of production/

manufacturing. As far as tariff categorization is concerned, power intensive connotes to industries utilizing high amount of electricity, with no commensurate social benefits to the State such as employment generation; while there is shortage of electricity, it would be justifiable to categorize such bulk power consumers at higher tariff rate.

Proposed hike in railway tariff may be acceptable, as this would only bring the railway traction tariff comparable to that of other states.

Even though the tariff of HT Commercial category is closer to the cost, the tariff of LT

Commercial category is very much higher than that of HT Commercial category. Therefore, proposed increase in HT Commercial category may be admitted.

Regarding the Grid Tariff of Licensees, proposed increase in G2 tariff may be sustained as self-consumption accounts for more than 50% of total electricity availed by G2 category consumers.

Shri.N.T.Nair

Comparison of tariff prevailing in other states with that of Kerala is suggested to be useful, keeping aside the State specific issues such as hydrothermal mix, consumer density etc.

Suggested to review the proposed hike in the Tariff of Railways, as it should not be a deterrent factor for the State's railway electrification as far as Railway Ministry is concerned.

Member, KSERC confirmed that the proposed hike would make the tariff for railways comparable to that of Tamil Nadu.

For the HT Category, both hike in billing demand from 75% to 90% of the Contract demand and hike in MD charges may not be simultaneously imposed.

Member, KSERC clarified that hike in billing demand to 90% is not included in the present tariff proposal of KSEB.

In general, the proposed hike of about 33% may not be very comfortable to the stakeholders.

Shri. S.R.K.Rasalam

Transition to and implementation of enhanced tariff should be evolutionary and time bound. The Commission may explore the possibility of fixing a time frame so that financial difficulty of the Board might be overcome.

The Board's achievement in T&D loss reduction to about 5% over five years may be appreciated; adoption of modern technology for T&D loss reduction may be considered.

The Board's proposal to withdraw the "Deemed HT status of such privileged LT consumers" may be sustained.

Reference is made to: LOW TENSION – VI A (LT-VI A) NON-DOMESTIC,

Convents' are seen omitted which may please be included in the list". There may be several consumer categories like this and it is unclear why special mention is made only regarding "convent".

Advocate K.G.M.Nair

The Commission projected improvement in the financial condition of KSEB over the years; however, the figures/ data on various performance parameters indicate that the Board requires complying with the directives of the Commission and adhering to the guidelines of the Commission in due seriousness.

The Government of Kerala also exercise control over KSEB, particularly giving direction in terms of social and welfare measures; and as such it is obligatory that the state Government should compensate the shortfall in revenue to the Board. Despite the repeated directives of the Commission, the State Government continues to fail supporting the Board in paying the subsidy due. SAC emphasise that Government of Kerala pay the subsidy due to the Board so as to avoid a imminent tariff hike and to better the Board's financial position, and in turn the performance, substantially. It is evident that the present financial position of the Board is primarily due to the laxity of the Sate Government in releasing the subsidy, than the performance deficiencies of the Board. In this context, if a tariff hike is called for, it is solely necessitated by the Governments non-commitment in paying the subsidy due to the Board and otherwise there exists no emergency situation urging for a tariff hike.

Interstate comparison of Tariff rate may not by itself be representative as many state specific issues influence the tariff, such as power generation and procurement, load density etc. Here, the case in point is that dwindling share of hydel power in Kerala might lead to a shift in hydro-thermal mix; compounded by the absence of new hydel projects in near future, this would pave way to substantial escalation in power purchase cost.

Categorization of power guzzlers such as metallurgical industries etc as power intensive, with proposed tariff hike is a welcome step, as contribution of such industries to state's employment pool is meager in comparison with their power consumption; and these lot of consumers should genuinely bear the implication of high cost power purchase of the Board. The proposed hikes in tariff to such consumers are felt to be reasonable.

KSEB'S proposal to limit 20% of the connected load or 500 watts of domestic consumers for purposes other than domestic such as for commercial use, consultancy, medical practice, running financial & other institutions etc, may not be permitted. Instead of imposing limit on load for such use, the activity of Anti Power Theft Squad should be intensified to penalize misuse of domestic power.

The proposal for commercial tariff for common facilities of multistoried residential buildings is very much unscientific as there is no element of "non-domestic use" as far as the nature and purpose of power utilization by those loads all concerned. It is purely for the domestic purpose such as common area lighting, water pump for domestic use, lift for residents' transportation to elevated floors etc.; these are legitimate domestic necessities for the common man living in such buildings. It may be noted that giving connection to such apartment building is less costly to the Board than giving service connection to separate households. Therefore, such a change for imposing commercial tariff to common facilities of multistoried residential apartments/building should not be admitted at all.

Sri. E.M.Najeeb

Proposed Tariff hike ranges from 30% to 50%. Such an order of magnitude of increase is unprecedented in the pricing of any public utility organizations. The grounds put forth by the

Board for the proposed hike is not at all justifiable. The Board's failure to control its expenditure and to pursue the State government in releasing the subsidy due may be noted. In this context, there exists no justifiable scope for tariff hike and by no means the hike shall be allowed. Any such hike, especially in commercial consumer category/sector would lead to increase in the cost of service, which would be passed on to the common public; this, in turn would affect the inflationary trend, adversely affecting the State's economy.

Shri. A.P.M.Abdul Rahim

Although the proposed tariff may not have any direct significant effect on the SSSI/SSE consumers, due consideration is sought on following points:

Hike in billing demand to 90% of contract demand would burden the SSI/SSE HT consumers, most of whom are having contract demand very close to the stipulated maximum load of LT category. The actual operating demand may be kept in view in such cases, rather than a percentage of contract demand for billing purpose.

The definition of power intensive industries needs a thorough review. For example: In a typical injection moulding factory : actual load of about 20% will prevail only till the 'melting stage', and the power usage would become less than 5% thereafter. Such production / process specific matter may be taken into account prior to admitting the definitions, which may have wide ranging tariff implications in the operating cost of such SSIs/SSEs.

The hike in railway tariff, if comparable with that of other state, may be accepted.

Categorization of seafood industry in commercial category is not justifiable.

Such units under SSI/SSE category are considered as industrial category for all other purposes; only the Board proposes to include such industries under commercial category. Similarly, consumers in IT /software industry, one of the most important sector for the State's economy, should be categorized under industrial tariff, conforming to the Sates IT policy.

Charging the LT consumers for the 'transformer loss' as unaccounted loss is not at all justifiable as the entire loss in the KSEB system is already accounted in the ARR.

Shri. D.K.Sood

The tariff proposal is flat in nature; there shall be more step provisions, with due considerations in terms of frequency vs. cost of power drawal. This should drive the consumer for effective implementation of load management; towards this ToD pricing shall be well designed and implemented. Even at UI rates as high as Rs. 7.45 per unit there exists demand for power. The trading is taking place in the country at substantially higher rates. Need of quality power even at higher rate is becoming the market trend in Indian power sector. KSEB has to recognize such market economics and make use the market mechanism to reduce the revenue gap as well as to maximize the revenue. KSEB may have to tune to such market intelligence and schedule power from RGCCPP, NTPC for trading/ sales to its best advantage, making use of the 180 MW cheaper pooled power from Talcher, allotted in lieu of high cost power from RGCCPP, rather than idling the RGCCPP. Further idling of RGCCPP in the scenario of rising power shortage and power trading rates may force the authorities to revisit the power allocation to KSEB. KSEB may be permitted to exercise autonomy in such decisions for power sales/trading to the best techno-commercial advantage.

Shri. T. Elangovan

Concessional tariff may be considered with the support of Government policy and subsidy for domestic, agriculture, industrial and infrastructure sectors as these sectors have a strong bearing on the growth of State's economy.

The proposed tariff hike for power intensive industries may be accepted.

In the case of railway traction, instead of a steep tariff hike, a via media hike of about Rs. 3.25 per unit may be considered, without discouraging the ongoing/forthcoming railway electrification programs in the State.

Proposed increase in the bulk supply tariff for Licensees may be admitted.

Categorization of consumers such as seafood processing units, milk-producing units etc. engaged in value addition of raw materials, under commercial category is not justifiable. Similarly, tariff for consumers such as cottage industries, agro-based units etc. under primary sectors should not be hiked.

Software and IT may be classified under commercial category.

Non-domestic use of domestic consumers for consultancy service and other commercial activities shall be identified and penalized rather than limiting the admissible load for such use. Power utilization for consultancy activities may be grouped under one specific tariff category.

Concessions for water supply services may be accepted.

Changes for seafood industries etc. to commercial category is uncalled for.

Workshops with water servicing may be under commercial category.

KSEB shall identify any misuse of electricity consumption in the case of

consumers under lower tariff category and Board has to place the consumer under proper category, case-by-case. For e.g: if workshop having higher power utilization for water servicing need to be charged at Commercial rate.

Shri. K.K Unni

Comments are mainly on technical aspects rather than commercial aspects, on the following Paragraphs of the Board's proposal:

Para 12:"..Proposes to levy demand charges on recorded maximum demand or 90% of the contract demand or 100 KVA whichever is higher"

As per the supply code, the HT Category starts when the connected loads equals to 100 k VA for new connections. Levying minimum demand charges for 100kVA for a consumer having 100 kVA or marginally higher connected load is not justifiable.

Para 14; "Power intensive consumer means and includes consumer availing power from Kerala Power system at 11KV or more *(vi) Where total power requirement exceeds 2500KVA of connected load of all the equipment taken together in the premises irrespective of nature of industry and nature of product."*

Defining a consumer availing power at 11 k V having connected load above 2500 k VA as power intensive unit is not justifiable.

Para 16: Deemed HT status:" *Consumers who were having connected load above 100 KVA and availing power at LT"*

This is against the provisions of the supply code. Therefore, deemed HT tariff is not sustainable.

Para 24: "*Therefore IT industries should not be classified at par with traditional industry and it should be classified under commercial category considering its peculiar nature and financial returns derived there from."*

Categorizing IT industries under higher slab Commercial category is contradictory to the IT Policy of the State Govt. Para 4.4 of IT Policy of the Govt. of Kerala under IT Growth drivers, it is stated that "… The power and water tariff are one of the lowest in the country…."

Para 29. Supply to common facilities of multi-storied buildings

a. Common facilities should be segregated and separate connection shall be availed.

Common facilities may be metered separately, but "separate connection to common facilities" is against the Provisions of Rule 50 of IE Rules, 1956

Sri. V.Ramesh Babu, KSEB

KSEB's proposed tariff is in line with the draft proposal of KSERC, taking into account crucial and vital issues faced by the Board as well as the socio-economic factors of the State to the extend possible.

The amount of revenue gap may be viewed from the point of CERC norms versus central accounting norms. The Board is in a situation to follow dual accounting system viz., CERC based accounting system and Central accounting rules by the Comptroller & Auditor General of India; the latter is as per the statutes. Perhaps such a parallel accounting may have to be maintained during this transition period of the Board.

The proposed hike in tariff may be viewed from the following facts:

- Increasing share of thermal power from CGS as well as from high cost power from liquid fuel based generating plants of the Board and liquid/naphtha based generating plants of State's IPPs
- The load factor of the Kerala Power system is about 50%; i.e., about 3000 MW is required to meet the peak demand, whereas the average demand is only about 1500 MW. This necessitates considerable fixed cost component.
- Disproportionate cost escalation due to market driven and system specific aspects such as UI add up the cost of power purchase; case in point is the recent hike in UI rated to Rs. 7.45 per unit.
- There should be some mechanism to recover the loss incurred by the Board in the past

Shri. Venugopalan. K.P

So far, the Government of Kerala has not taken any decision on the tariff proposal submitted by the Board.

General Discussion regarding the supply side augmentation:

Chairman thanked all participants for their active participation in the discussion on the KSEB's tariff proposal. He invited the forum for a general discussion on the supply side augmentation in the State, in the wake of increasing power demand and escalating power price.

The following points emerged during the discussions:

- Potential for exploitation and barriers for implementation of wind power, small hydropower, solar power and energy conservation and demand side management
- Environmental considerations of hydroelectric projects- need to take up systematic steps
- Role of ANERT in the development of NCES based power generation
- Implementation of power saving measures in domestic sector – need for incentives and creation of awareness
- Promotion of captive power plant, especially in cogeneration route and enabling provision for sale of power CPP to grid
- Availing Carbon credit benefits for NCES based plants and for energy conservation measures
- Need for the utility (KSEB) driven demand side management
- NTPC and others PSUS may enter wind generation.

The meeting ended with vote of thanks by the Chairman for the valuable contribution and suggestions made by the members of the Committee.

ANNEXURE - V

List of Persons attended the public hearing on the Tariff petition of KSEB

Date: 16-10-2007 NMR Hall Palakkad

1. Vinod Narasimam, Representing HT-EHT Association
2. Damodar Avanoor, General Secretary, KSSIA, Kochi
3. N.Babu, Patspin India Ltd, Kanjicode
4. K.E.Edison, Leen's Cottage, Near Hemabika School, Kallekulangara P.O
5. R.Gopalakrishnan, FRAP, Palakkad
6. G. Krishna Kumar, Chairman, Confederation of Indian Industry, Palakkad
7. B.S. Bhat, DGM, ITI Ltd, Kanjikode, Palakkad
8. S.B. Raju, ITI Employees Union
9. A. Muraleedharan, US, ITI Ltd
10. V.S. Vijayakumar, ITI Employees Association
11. K. Karunakaran, ITI Employees Association
12. Anil Kumar. G, ITI Officers' Association
13. Sebastian. C. Joseph,Engineer, ITI Ltd, Kanjikode
14. C.R. Harish, Southern Railway, Palghat
15. P. Parameswaran, Power Engineer, Consultants, Palakkad
16. Sunil Joseph, Sark Cables Ltd, Kanjikode
17. P.N. Sukumaran Nair, CEO Patspin India Ltd, Palakkad
18. B. Babunath, GMP, Patspin, Palakkad
19. K. Arasha Krishnan, SRMGR Engineering
20. K. Pankajakshan, KIF
21. K.N. Surendra Das, MIMS, Kozhikode
22. Anandan. M, Pats Pin India Ltd
23. T. Ramabadran, SEPR India Ltd
24. Sivakumar. S., SEPR India Ltd
25. N. Jayakumar, Precot Meridian
26. J. Rajarantnam, President, Merdu C'Unit, Walayar
27. Pavithran, FRAL, Palakkad
28. R.Srinivasan, SEPR, Palakkad
29. Vinaypillai, SEPR, Palakkad
30. Vinu. V. Alexander, SEPR, Palakkad
31. Nandanan, Patspin
32. P.N. Vipin Chandran, Precot Meridian
33. Dr. K. Selvaraj, SIMA, Coimbatore
34. T. Rajkumar, SIMA, Coimbatore

35. M. Chemniappan, Sri.Bagavati Textile, Calicut
36. V. Regunatan, SIMA, Coimbatore
37. K.P. Mohanaraj, KSSIA, President
38. Geo Das.T, Jnt. Secretary, KSSIA
39. P. Suresh Babu, Press Mathrubhumi
40. Natarajan. V, Indisil Electromats
41. C. Ramesh, PAI SPIN INDIA LTD
42. P. Rakash, Kerala State Consumer Association, Palakkad
43. Johnson Jacob, CE (C&T), KSEB
44. Ramesh Babu, Dy.CE, TRAC, KSEB
45. Sivaprasad, EE.TRAC, KSEB
46. M. Valsalan, Canteen Contractor
47. Girishkumar Mera, Orma Marble Work, Thrissur

Date: 17-10-2007 Muncipal Council Hall Aluva

1. M.S.A. Kumar, Vice Chairman, Confederation of Indian, Industry, CII, Kerala
2. A.R. Satheesh, Asst. General Manager,Carborondum Universal Ltd
3. George Thomas, President, HI & EHT Association
4. Dr. Sukumaran Nair, Managing Director, TCC Ltd
5. Asoka Varma, Deputy Director, Implementation of Indian Industry, Cochin
6. K.N. Gopinath, Convenor, Standing Council of Trade Union
7. K.J. Dominic, DTLU GTN Unit, AITUC
8. E.G. Jayaprakash, AMTMS, GTN, BMS
9 K.J. Joseph, Binani Zinc Ltd
10. Rajan V.M, C.B.Z. L Employment Union
11. Alupuram Zakeer, Convener, Standing Council of Trade unions
12. P.S. Gangadharan, Vice Chairman, Standing Council of Trade Unions
13. A.P. Joy, Binani Zinc Employees Organisation
14. K.I. Antony, GTN Workers Association
15. M.M. Saju, A.T.E.A (INTUC GTN Unit)
16. K.K. Mohammed, G.T.N.Jobbers Assosication
17. K.K. Mohammadali, GTN ATWU
18. V.K. Remeshan, T.C.C.Employees Association
19. A.P. Antony, TCC Employees Union (INTUC)
20. Francis Edirom, TCC Staff Workers Association (AITUC)
21. K.P. Rajendran, TCC Employees Organistion (BMS)
22. T.M. Abbas, TCC Thozhilali Union
23. V.N. Balakrishnan, Vice President, GTN Textiles Ltd
24. Anil Kumar P.A, Kadavil Electromach Industries

25. A.J. Titus, SUD Chemic
26. R. Suresh Kumar, IRE Employees Sangh (BMS)
27 M.J. Jose, IRE Workers Union
28. A.J. Varghese, IRE Employees Sangh (BMS)
29. M. Sasi, Traco
30. C.T. Krishnan, Traco
31. G.V. Tensons, Hindustan Organic Chemicals
32. Mathew Samuel
33. K.S. Prakashan
34. Mahtew Mathew, HOC –Trade Unions
35. Manoj S. Mani
36. Shibu Kurian, TCC Officers Forum
37. G.N. Mohan, TCC Union
38. K. Dasan
39. P. Sasikumar, AUTOCAST Trade Unions
40. G. Sugunan
41. V.P. George
42. Jinnas K.K, INTUC
43. M.M. Shikabuddin
44. Rajitha Kumar R, CUEM PL-I
45. M. Ramadas
46. A.A.M. Navaz, AVP, Binani Zinc
47. K.K. Suz, C U S W No.1 Plant
48. K.K. George, Consulting Engineer
49. V.P. Mohanan, S.R.Industries
50. M.G. Rajan, M R F Limited, Kottayam
51. Jajakumar .R
52. K.K. Anilkumar, Carborondum Universal Employees Union
53. P.A. Usman, Traco Cable Company
54. Rajan Thomas, CUMI Employees Union
55. Sivasankaran, CMRL – CITU
56. T.S. Shaji, CUMI Employees Union
57. P.A. Ramesh Krishnan, CUMI
58 A.M. Basheer, Traco Cables, STU
59. K.P. Sadasivan, CMRL
60. M.M. Sathar, Traco Cables, STU
61. B. Chandra Sekharan, INDL , INTUC
62. K.R. Venugopal, CMRL EU
63. Siddique. S, Traco cables STC

63. Yeldho K.J, Binani Zinc, INTUC
64. T.P. Abdul Salam, CMRL INTUC
65. Balachandran P.K, CMRL INTUC
66 T.R. Shaji, CMRL DA (INTUC)
67. P.S. Sreekumar, Traco Cable Co.Ltd (AITUC)
68. G. Suseelan, Director, KCPL Kochi
69. D. Raveenranath, GM
70. Muraleedharan Nair, DGM
71. Sivasankaran M.G, F.E.O (BIYS) FACT
72. Ratheesh K.Pai, Manager (Electrical) SSPML
73. K.P. Lenin
74 M.R. Ragesh Kumar, CPI (M), Binani Branch
75. G. Arul Chandra, Binani Zinc INTUC Union
76. M. Suku, CUMI Labour Union
77. Shaji Sebastian, KSSIA, Ernakulam
78. Suresh Kumar A.S, INTUC Union, SS PM,Edayar
79. C.A. Sukumaran, Premier Tyres Employees Union (CITU)
80. C.K. Ashokan, SSPMMC CITU
81. T.C. Kuriakose, Manager, TCC Ltd, Udl.
82. T.P. Baburaj, Traco Cable Co.Ltd (IBM)
83. Mohammed Fuzi, SUL Binanipuram
84. Praddp M.H, HINDALCO EXTRUSION, Klsy
85. M.A. Raju, Premier Model Industry
86. P. Surendran, Traco Cable Company Ltd
87. P.P. Avarachan ,,
88 M.P. Reji ,,
89. L.N. Shaji ,,
90. P.M. Aboobaker, SUD Chemi LTd.
91. P.K. Prasannan, S.C.I.L
92. Nizar K.K, S.C.I.L
93. Abdul Salam, Jasah Marble
94. P.A. Radhakrishnapillai
95. V.K. Aliyar
96. K. Swaminathan, Turntech Engineers, Vazhakkala
97. T.A. Asharaf, S.C.I.L, Binanipuram
98. Saji. P. Varghese, FACT Ltd, Udyogamandal
99. Abraham Roy Mathew, FACT Ltd, Udyogamandal
100. V.J. Jayakumar,
101. K. Kurian, Vijayan V.R, Infopark
102. Jayasree. K.K, Cochin Shipyard Ltd

103. Bilju M. Devassy ,,
104. MAM Ply Wood Industries
105 V.M. Ply Woods
106. M. Sambasivan, Aluminium Fabricate Workers Union
107. B. Chandrasekhar, IWA –INTUC
108. M.J. Sejeet, Traco Cable Ld
109. V. Sreekumar, Hendalco Industries Ltd
110. P.C. Bhasuran
111. P.B. Raghavan, Traco Cable
117. N.M. Hassan, Cochin Kagaz LTd
118. Kerala Engineering Works Asscociation
119. Genarghe Samuel,Jog Weld
119. Jyothi J, Jothi Engineering Works
120. Sadasivan Pillai, Sivan Welding Works, Kayamkulam
121. V.K. Unnikrishnan, General Manager, Appolo Tyres Ltd, Kalamassery
122. M. Ravi, VP (Operation)VKL, Cochin
123. Varghese M.P, FEA, FACT
124. K.C. Raphel, FEC (INTUC)FACT, GS
125. Mathew Varghese, DGM (Operation) Koncor Ingredients Ltd, Angamaly
126. K. Prakashan, MRF Ltd, Kottayam, MRF Employees Union, (CITU)
127. S.N. Patil, L & T Tech Park, Infopark,Kochi
128. P.Y. Jose, MRF Employees Association INTUS
129. N. Ajayakumar, FACT (PD) Workers Organisation, Udl
130. Joy Skaria, Traco Cable (INTUC)
131. S. Nagamanikkam, MD, Thannikkudam Bhagavathi Mills, TCR
132. M. Abdul Karim, HINDALCO, INTUC
133. P. Ashokan, Appolo Tyres LTD
134. P.R. Jerry, Goldsun Paints
135. Glitter Paints Chemicals
136. S.N. Pillai, Periyar Chemicals LTd, Sreenarayanan
137. Gabriel Anand Paul, Kerala Ayurveda Ltd, Athani
138. Abdul Rasak P.N, IREL, Udyogamandal
139. P.M. Veerakkutty, INTUC, MEKCLE President, Kalamassery
140. Abdul Kadhar, Perayyil, Thegas, Dily

Date: 18-10-2007 Commissions office Thiruvananthapuram

1. K.P. Ramanandan, SE(E), BSNL, Electrical Zon, TVM
2. B.V. Chandrasker, CEDE,Southern Railway, Chennai

3. Sr. Suly. S.K, S.H. Jyothicentre, Kumarapuram
4. John Mathews, Manager, HNL, Newsprint nagar
5. S.Jayan / Y.Pradeep, Titanium General Labour Union
6. A.J.Rajan / C.V.David, Travancore Titanium Product Ltd
7. Raghavan.P.P, HNL, Officers Association
8. Balachandran Nair.K, Plavodu Residents Association
9. Abdul Shaheen, DarulNoor Chirayinkil
10. U.K.Nair, Manager, Sreepadmam, A.R.Road
11. Peter. I.A, President, Kerala Small Industrial Association, TVM
12. K.N.G. Kaimal, Asian Bakers, TVM
13. Rajesh, Binani Zinc, Cochin
14. Alupuram Shakker Joseph, Joint Trade Union Council, Kerala
15. Sajith.M.S, Exe. Engineer, Travancore Titanium, TVM
16. P.Ganesh, Chairman, CII, TVM
17. G.K. Nair, CII, Kochi
18. Prince Thomas George, Secretary, Association of Planters of Kerala
19. V.Suresh/E.M.Wilson/Madhavankutty/Jaya/F.Stanly/Jayashankar/Joseph, Kerala Color Lab Association
20. Rajendran. K.V, General Manager, Technopark, TVM
21. S. Manoj Kumar, Electrical Engineer, Technopark
22. Viswanathan. N, Asst.Fin. Officer, Technopark
23. K.G. Madhu, KSSIA, TVM
24. Mini George, E.E, KSEB
25. Hema.K., AEE, KSEB
26. Meharunnisa. M, AEE, KSEB
27. Gigy Elzy John, AE, KSEB
28. Jayasindhu FCA, Consultant, Technopark
29. Joseph Jacob, Aclas
30. Jayasankar. V.N, Babas Color Lab
31. K. Prabhath, KSSIA
32. S.Soman, Balaramapuram
33. A. Sivaramapillai, AGN Santhigiri, Ayurveda Vaidyasala
34. P. Suresh, HNL, Employees Union
35. Sanal Kumar, H.N.L, Employees Assn
36. AjithKumar. V, H.N.L.INTUC
37. Sunil Kumar, Malayil, Ponmana P.O.
38. G.R.K. Murthy, DGM (M), KMML
39. Jahansar. M, M(E), KMML

ANNEXURE - VI

Objections of State holders & reply of KSEB on Tarifs petition	
1. Accelerated Freeze Drying Company/The Canning Industries Cochin Ltd/ Mangala Sea Products/Bhatsons Aquatic Products (Objections 1,2 3,6).	
Objections/Suggestions	**KSEB's Response**
The respondents were requested for the continuance of the HTI Industrial Tariff for the seafood processing units instead of HT IV- commercial tariff Also requested to amend definition of Seafood processing unit as **Seafood processing unit including chilling, freezing and cold storage** in the schedule of terms and conditions of tariff.	KSEB like to invite the attention of the Hon'ble Commission and respondents on the following facts on the issue of changing their tariff classification from HT1 Industrial to HT-IV Commercial. Various Sea Food Exporters had filed petitions before the Hon. Commission for reclassifying them under HT-I (Industrial) tariff against the tariff classification of the Board incorporating them under HT-IV (Commercial) tariff. The petitions were disposed of by the Hon. Commission vide its order dated 11-05-2006 with the following verdict. *"The Commission after examining the matter in detail, decides to accept the arguments of the Board that since the petitioners are consuming electricity mainly for the purpose of cold storaging of seafood items, they are to be classified under HT-IV Commercial and need not be reclassified under HT-1 Industrial Category as requested by the petitioners."* Then they filed petition W.P.(C) No. 17033 before the Hon'ble High Court of Kerala challenging the above decision of the Hon'ble Kerala State Electricity Regulatory Commission. The Hon'ble Division Bench of the High Court of Kerala vide judgement dated 27-07-2006 directed the petitioners as follows: *"even though an interim stay was passed by this court, we are of the opinion that the petitioner has to file an appeal before the Tribunal constituted under Section 110 of the Electricity Act 2003 and this writ petition is not maintainable. ……………… Both parties are free to raise all the contentions before the Tribunal. The writ petition is disposed of accordingly."* The petitioners approached the Hon'ble Appellate Tribunal for Electricity vide Appeal No. 236/2006 dated 24-08-2006. Hon'ble Appellate Tribunal vide judgement dated 07-03-2007 disposed of the appeal finding no merit. Para 17, 18 & 19 of the Judgement of the Appellate Tribunal is reproduced here for kind perusal of the Commission. *17. In the ………………, it has been clearly stated that all the electrical energy was required for operating and lighting the appellant's Freezing & Cold Storage premises ………………….. This clearly indicates the purpose for which the electricity was required to be consumed. …………………….. Since the energy is being supplied to the appellant for cold storage and freezing units, it squarely falls within the category H.T.IV (Commercial).*

	<u>The tariff was fixed by the KSEB in exercise of its quasi legislative power under the provisions of the Electricity (Supply) Act, 1948.</u> In the ………………. tariff. Once cold storage and freezing units were classified under Category-IV (Commercial), the classification automatically applied to the appellant from the day the Tariff Order was issued viz. May 4, 1999 as according to the agreement between the appellant and the KSEB, the electrical energy is being supplied for running the cold storage and freezing units of the appellant. Therefore, no notice was required to be given to the appellant by the KSEB before billing it under Category HT-IV (Commercial). *18. The learned counsel ………………. contention of the appellant* ***<u>as the agreement cannot have primacy over the Tariff Order which is statutory in nature</u>****. In any event, ………………… to the appellant.* *19.* ***In the circumstances, therefore, we do not find any merit in the appeal. Accordingly the same is dismissed."*** Hence the categorization of Sea Food Exporters under HT-IV Commercial Category is justifiable and legal.
2. Cochin Special Economic Zone (objections no. 4 & 7)	
The respondent has objected the proposal of KSEB to increase the billing to minimum 90% of the contract demand against 75% of the contract demand. This will technically and economically upset the functioning of the licensee.	The objection is not sustaining. KSEB have to plan and develop the entire power system right from generation, transmission and distribution according to the contract demand of its consumers. If the actual billing demand is much less than the contract demand, it will lead to under utilisation of the resources as well under recovery of the cost incurred by KSEB for such consumers. In order to reduce the financial loss to the Board on such accounts , two possible options are either to recover part of the loss directly from such consumers or to pool the loss to all others. So Board proposed to raise the ceiling limit of the billing demand criterion from 75% of the Contract Demand to 90% of the Contract demand. It may be noted that, the present limit of 75 % of the contract demand fixed by the Board is at lower side compared to other States. Board proposes to levy demand charge on recorded maximum demand or 90% of the contract demand or 100 KVA whichever is higher.
The proposal to define all power consumers who avail power at 11 KV or more as power intensive will result into classifying all the licensees as power intensive consumers enhancing the energy charge by Rs 1/-	The statement is wrong. All consumers who are availing power at 11 KV or more are not categorised as power intensive consumers. According to the draft proposal of KSEB, "Power intensive consumer are consumers are those availing power from Kerala Power system at 11KV or more and also fulfils any of the following conditions *(i) for production of Calcium Carbide, Caustic Soda, Charge Chrome,Ferro Chrome, Ferro Manganese, Ferro Silicon, Ferro Alloys, Potassium Chlorate, Silicon Carbide, Sodium Chlorate, Sodium Metal, Chlorates/ Per Chlorates.* *(ii) for melting of metals or alloys and for extrusion of metals or* *(iii) for use in electro chemical or electrothermal processes or in induction arc furnace for the manufacture of any products or* *(iv) for manufacture of products with any process in which cost of power as computed at normal industrial tariff based on BIS parameter is more than 25% of the cost of production of that product.*

	(v) with connected load exceeding 100KVA and having heating load exceeding 20% of their total connected load, irrespective of nature of industry and nature of product. *(vi) where total power requirement exceeds 2500KVA of connected load of all the equipment taken together in the premises irrespective of nature of industry and nature of product."* It may please be noted that, Licensees are supplying power to its consumers at their own tariff schedule and it does not have any relation with KSEB tariff.
The proposal to treat the Licensees supplying power to the industrial estates as Bulk consumers and to charge as per KSEB retail rates to the end consumers, will eliminate all the Licensees like CESZ, KINFRA,Rubber Park etc from Grid II tariff rates.	The tariff of HT/EHT category is according to the voltage level at which supply is being given. For giving supply at a particular voltage, KSEB have to incur same cost whether they are industrial or Licensees. Since, the HT/EHT industrial tariff is the lowest, KSEB propose to charge the same tariff to licensee, who consumes more than 50% of the energy purchased from KSEB for their own use. They *consume bulk power but doesnot supply power to the various sectors of consumers who are provided electricity at subsidized rates like domestic, agriculture, govt. offices, orphanages etc. as done by Licensees like KSEB, Trichur Municipal Corporation or Tata Tea .So such* bulk consumer like CSEZ,KINFRA,Rubber Park etc presently under Licensee category be charged at prevailing Industrial tariff according to the voltage level at which they avail supply.
The proposal to charge RS 5000/KVA for enhancement in contract demand is objected. Depreciation is already taken in to account as a factor of cost in fixing the sale rate of energy.	The licensee may aware that, KSEB have to incur huge capital investment in each year for developing the infrastructure in power sector such as capacity addition in generation, erection of new transmission lines and substations, developing distribution networks etc. As per the National Tariff Policy of the Central Government as well as various regulations of KSERC, KSEB have to incur 30% of the total investment as equity, its own fund and the balance is being met through debt. So, it will ultimately lead to reduction in annual interest cost and ultimately the tariff. It may noted that, KSEB propose about 1/15th of the investment only as one time capacity charges from EHT and HT consumers.
3. Secretary, The Association of Planters of Kerala	
The respondent has objected the KSEB proposal to increase in minimum fixed charge from 75% of contract demand to 90% of contract demand. The maximum demand is kept low by efficient operation of the power system by the consumer.	In giving reply to the contentions of CSEZ this matter was explained in detail . Over and above following remarks may also be brought to the attention of the Hon. Commission .KSEB have to plan and develop the power system according to the contract demand of its consumers. If the actual billing demand is much less than the contract demand, it may lead to under utilisation of the resources as well under recovery of the cost incurred. In order to reduce the financial loss to the Board on such accounts, Board proposed to raise the ceiling limit of the billing demand criterion from 75% of the Contract Demand to 90% of the Contract demand.
One Time Capacity charge of Rs 5000/KVA	KSEB have to incur huge capital investment in each year for developing the infrastructure in power sector such as capacity addition in generation, erection of new transmission lines and substations, developing distribution networks etc. As per the National Tariff Policy

	interest cost and ultimately the tariff. It may noted that, KSEB propose about 1/15th of the investment only as one time capacity charges from EHT and HT consumers.
Heating load more than 20% of the total connected load	This is only an adaptation of the existing condition as per prevailing tariff and not a modification .So the Hon. Commission may admit the same .
4. Secretary Seafood Exporters Association of India, Sea food house, Wellington Island, Cochin	
Objections/Suggestions Kerala seafood industry has undertaken major investment programme to upgrade the processing facilities to meet the international standards. There has been substantial increase in power requirement of all the seafood factories, The connections are for the industrial activity, cooling and freezing are parts of industrial activity	KSEB's Response It can be seen that, the main activities in the sea food industry are cooling and freezing. They require close temperature control, consistent and reliable power for freezing the products. Freezing and packing are preservation methods for sale on a later date in appropriate markets at appropriate time to ensure higher returns. Such an activity is only a commercial one and cannot be termed as 'industry' for the purpose of tariff determination.
Many of the units have enjoyed the pre-92 concession tariff intended only for industrial under takings.	It is to be pointed out, KSEB had surplus energy during early 80's. So, KSEB was able to provide reduced tariff to various categories of consumers. But now the situation has been totally reversed. At present KSEB has been purchasing more than 50% of the total energy requirement from costly thermal stations. So, KSEB will be at heavy loss, unless the revenue loss on account of any form of concessional tariff to any category of consumers is compensated by the Government.
All the processing units are 100% export oriented establishment, purchases fish and other marine food products from the local market and processes ,packs and export to foreign countries. For converting the raw marine products to export worthy final product require various machines which are operated by electricity.	Their main activities are purchase fish and other marine products from the local market , clean it and packs for exporting to foreign countries. Hence it should not be classified at par with traditional industry and may be classified under commercial category
Unjustified categorisation of freezing plants and cold storages as commercial consumers under HT whereas the same time, same kind of consumers are classified as industrial consumer under the LT category Though HT consumers are clubbed in the new category of HT commercial and demanding huge amount, the LT consumers are still not categorised as separate commercial and no enhancement of tariff. There is discrimination between HT&LT.	As per the KSEB proposal Freezing plant, cold storages are under LT VIIA commercial tariff , shifted from LT Industrial to LT-VII(A) Commercial.As per the proposal Freezing plant, cold storages are under LT VIIA commercial tariff ,shifted from LT Industrial to LT-VII(A) Commercial.
5. Kerala State Small Industries Association Objections	
Billing Demand for HT consumers – Levying of Demand charge on recorded maximum demand or 90% of the contract demand or 100 KVA whichever is higher is not scientific. The respondent has requested to withdraw the present proposal or stipulation for conversion from HT to LT may be made as 100 KVA **maximam demand** instead of 100 KVA **connected load**	KSEB have to plan and develop the power system according to the contract demand of its consumers. If the actual billing demand is much less than the contract demand, it may lead to under utilisation of the resources as well under recovery of the cost incurred. In order to reduce the financial loss to the Board on such accounts, Board proposed to raise the ceiling limit of the billing demand criterion from 75% of the Contract Demand to 90% of the Contract demand.

	If the billing demand of a consumers is continuously less than their original contract demand, they have option to reduce their Contract Demand. But whenever they exceeds their revised contract demand penalty will be payable. Suggestion for revising the conditions for the conversion from LT to HT as 100 KVA maximum demand, instead of 100 KVA connected load may not be admitted because the necessary distribution line, transformer, switch gear, substation, feeders etc are designed taking in to consideration of the connected load. Systems once installed can not be altered when the Maximum demand of a consumer is changed. If the connected load is below 100KVA , consumer can very wel lavail LT supply where the demand charge is on the basis of the connected load as per present tariff.
Power Intensive Industry If connected load exceeds 100 KVA having heating load exceeding 20% of the connected load as power intensive is not scientific because there are a lot of small industries especially plastic industries with injection moulding machines where the connected load for heating may exceed 20% but the running load may even be less than 5% for maintaining a steady temperature	KSEB was not proposed any change in the limit of heating load for classifying power intensive industries.
Deemed HT status Respondent suggested for the conversion from HT to LT is on the basis of maximum demand (100 KVA) instead of connected load (100 KVA)	Design of entire system parameters are to be done on the basis of the connected load not on the basis of Maximum demand. The maximum demand is not a constant value. It keeps on changing depending up on the requirement of the consumer from month over month. So designing (adding and withdrawing system elements) on the basis of inconsistent parameters is not practicable and viable. So, the proposal of the respondent is not practicable and therefore may not be accepted.
Sea food processing units All LT consumers in this category as well as ice plant may be classified as small scale industries/micro or small enterprises and industriial tariff may be made applicable	As per the proposal chilling/freezing/cold storage load exceeds 20% of the total connected load then commercial tariff will be applicable. In the case of small industries whose chilling/freezing/ cold storage load does not exceed 20% of the connected load industrial tariff may be applicable
Milk chilling and processing plant	
Software development and IT industries Industrial tariff may be applicable	IT industries come within the ambit of the term service industry, which are selling their services utilizing software. IT industries should not be classified at par with traditional industry where the cost of components including electricity in the cost of final product is definite. But the IT products are basically knowledge based and cost of final product does not keep any proportion with the cost of electricity used. So it should be classified under commercial category considering its peculiar nature and financial returns derived there from the IT based ventures where most of the cases are software based services

Unaccounted transformer losses	Flats, Commercial establishments etc avail HT supply by installing separate transformers in their premises. KSEB has been bearing huge transformer losses on account of their peculiar usage pattern including underloading or overloading of the transformer installed for their purpose. So it is justifiable that the losses on account of the transformers installed by them shall be at their account only..
One time capacity charges from EHT and HT consumers	KSEB have to incur huge capital investment every year for developing necessary infrastructure in power sector to meet capacity addition in generation, transmission , distribution and allied other systems. As per the National Tariff Policy of the Central Government as well as other statutes, KSEB have to incur 30% of the total investment as equity from its own fund and the balance through debt. So, it will ultimately lead to reduction in annual interest cost and ultimately the tariff. It may noted that, KSEB propose about 1/15th of the investment only as one time capacity charges from EHT and HT consumers.
6. Standing Council of Trade Unions Ernakulam	
The respondents requested to exempt the HT&EHT power intensive consumers from charging double the rate for the energy consumption during peak hours. Also requested for special consideration for those industries established before 1996	It may please be noted that, the double the energy charges for the consumption during peak hours for Power Intensive Industries was prevailing during the last 10 years . KSEB has not proposed change in the existing conditions. The respondent may be aware that, the peak demand in the state is about double the off-peak demand and KSEB has been incurring huge additional expenditure to meet the peak demand. In order to recover the part of the additional expenditure incurred to meet the peak demand and to limit the peak hour consumption the energy charge during peak hours for the **'Power Intensive Industries'** is charged double the energy rate during off-peak hours.
To increase Incentive for higher power factor	Hon'ble SERC had already introduced power factor incentives to the HT&EHT consumers. The situations in other States with regard to industrial consumption, availability of power, sources of generation, cost of generation etc are entirely different. The power factor incentive has to be linked to actual loss reduction by way of power factor improvement. So, the proposal of the respondent for higher incentive requires detailed study and analysis.
Incentive for bulk purchasing consumers	Energy surplus States had introduced incentives for high load factor and bulk purchase consumers. But the situations in our State is different. In Kerala, KSEB was not able to start new power projects due to the objections from environmentalist and other interested groups. At present more than 50% of our requirement is being met by purchasing power from Central Generating Stations established in other States. KSEB has been taking various steps for new capacity additions in generation through hydel as well as cheaper coal based thermal sources. KSEB may consider the proposal of the respondent, once the State become surplus in energy.

7. The Kerala HT&EHT Industrial Consumers Association, Ernakulam

KSEB has filed the tariff proposal after public hearing was conducted by the Commission.	The respondent may please note that, the Commission had notified the draft tariff schedule on 23-4-2007 and allowed one month time to all stake holders to file objections, changes and comments on the draft. KSEB filed the proposal and changes on the draft tariff schedule notified by the Commission within the time frame allowed by the Hon'ble commission. The Commission had conducted a public hearing within the time allowed for filing objections. It is understood that, Hon'ble Commission has decided to conduct public hearing again during the 3rd week of October.
No defined rationale for the tariff proposed by KSEB	The respondent may be aware that , based on section 108 of the Electricity Act-2003, the State Government had issued policy directions to the KSERC. In line with the policy directions of the State Government, on subsidy and cross subsidy, KSEB had filed the comments on the draft proposals of KSERC.
No supporting ERC for the tariff proposal of KSEB	KSEB had specified in the proposal that, there was an unbridged revenue gap of Re 1598.61 crores to be recovered through tariff. The year wise details are given in the KSEB proposal dated 23-5-2007. KSEB proposed to recover only a meagre portion of it through the tariff proposals.
If KSEB has filed the tariff proposal along with the ARR, the stake holders would have opportunity to file their grievances	It is not mandatory to file tariff petition along with the ARR. More over, the revenue gap approved by the Commission is much less than the estimate of the Board. Also, as a Government Controlled utility, the policy direction of the State Government is a deciding factor. The Government has directed that the proposals for bridging the revenue gap may be filed , once the Commission approves the ARR. But, the Hon'ble Commission is yet to approve the ARR for the year 2007-08.
Default of Government in providing for subsidy	It may please be noted that, the Government has issued policy directions for continuation of existing subsidy to the domestic, agricultural consumers etc. But, the Government is not providing any subsidy to the Board . As per the provisions of the Electricity Act- 2003, KSERC is the authority in fixation of tariff as well as other tariff related issues such as continuation of subsidy/ cross subsidy etc. It is the Hon'ble SERC is to give directions to the State Government for release of subsidy.
Cost related tariffs	The actual cost of supply to each category of consumers is difficult to determine. The tariff policy notified by the Central Government is for tariff based on the average cost of supply and not for actual cost of supply. Moreover, if actual cost service theory is adopted, the tariff of the agricultural, domestic and orphanages and other weaker sections in the society is likely to increase by three to four times over the prevailing tariff.

Irrational definition of power intensive consumers	The objectioner may please not that, the proposed tariff increase is only for those industries, who consume electricity as the basic input for their industrial activity. In tune with increase in electricity demand, KSEB was not able to implement new generation projects including hydel projects due to objections from various environmental groups etc. To meet the increase in energy demand, KSEB had been purchasing energy from liquid fuel stations and other thermal stations. In order to limit the electricity purchase from such sources, KSEB has been taking efforts to contain the electricity consumption through various measures.
Irrational increase in minimum payable monthly demand charge	KSEB have to plan and develop the power system according to the contracted demand of its consumers. If the actual billing demand is much less than the contracted demand, it may lead to under utilisation of the resources as well under recovery of the cost incurred. In order to reduce the financial loss to the Board on such accounts, Board proposed to raise the ceiling limit of the billing demand criterion from 75% to 90% of the Contract demand. If the billing demand of a consumers is continuously less than their original contract demand, they have option to reduce their Contract Demand. But whenever the demand exceeds the revised contract demand , a penalty will be payable . The demand they have surrendered will be diverted to other consumers who are in need of extra capacity.
Illogical introduction of One Time Capacity charge	KSEB have to incur huge capital investment in each year for developing the infrastructure in power sector such as capacity addition in generation, erection of new transmission lines and substations, developing distribution networks etc. As per the National Tariff Policy of the Central Government as well as various regulations of KSERC, KSEB have to incur 30% of the total investment as equity, its own fund and the balance is being met through debt. So, it will ultimately lead to reduction in annual interest cost and ultimately the tariff. It may be noted that, KSEB propose only about 1/15th of the investment as one time capacity charges from EHT and HT consumers.
8.The Fertilisers and Chemicals Travancore Ltd	
Additional Energy charge Re 1/unit	The proposal to increase the energy charge by Re 1/- is only for Power Intensive Industries, who use electricity as a basic input (raw material) for industrial production. KSEB had given various concessions to Power Intensive Industries in the past, during the period when Kerala had surplus power. But now the situation has completely changed. At present, more than 50% of the demand is being met by purchasing thermal/ nuclear power from Central Generating Stations where the cost of energy is being increasing every year. More over, there was severe power shortages through out the Country and KSEB is finding it difficult to get additional power from Thermal stations situated outside the State as well as to get allocation for power from new thermal stations proposed.

Additional charge of Re 3.90 per unit for energy consumed during peak time	The double charges during peak hour is still prevailing for the energy consumption during peak hours for the Power Intensive Industries. KSEB did not propose any change in it.
Classification of Power Intensive Industries	During the 80's, after the commissioning of Idukki HEP, there was enough surplus power with KSEB and offered energy at very concessional rates to the industries. But the situation has completely changed now. At present, KSEB was not able to implement new hydel projects intune with the increase in energy demand due to objections from various environmental groups etc. To meet the increase in energy demand, KSEB had been purchasing energy from liquid fuel stations and other thermal stations and KSEB was not able to continue supplying electricity at concessional rates to the industries.
9. The Western India Plywoods Ltd. Cannanore	
Objection is for the proposal of Rs 5000/KVA for the proposed connections and for increasing Contract demand	KSEB have to incur huge capital investment in each year for developing the infrastructure in power sector such as capacity addition in generation, erection of new transmission lines and substations, developing distribution networks etc. As per the National Tariff Policy of the Central Government as well as various regulations of KSERC, KSEB have to incur 30% of the total investment as equity, its own fund and the balance is being met through debt. So, it will ultimately lead to reduction in annual interest cost and ultimately the tariff. It may noted that, KSEB propose only about 1/15th of the investment as one time capacity charges from EHT and HT consumersRegarding increase of contract demand, KSEB have to plan and augment the entire power system right from generation, transmission and distribution according to the contract demand of its consumers. If the actual billing demand is much less than the contract demand, it will lead to under utilisation of the resources as well under recovery of the cost incurred by KSEB for such consumers. In order to reduce the financial loss to the Board on such accounts , two possible options are either to recover part of the loss directly from such consumers or to pool the loss to all others. So Board proposed to raise the ceiling limit of the billing demand criterion from 75% to 90% of the Contract demand.
Peak load increase must be compensated with concession in off-peak hours and normal hours.	It may be noted that, the peak demand in the State is about double the base demand and the increase in demand is met from liquid fuel stations, whose variable cost of energy is about Rs 6/- per unit. In order to restrict the peak demand, KSEB had been taking various steps such as TOD pricing for HT & EHT consumers, power factor incentives etc. But even with all these efforts, the peak demand is increasing at a faster rate. So, to limit the peak consumption , KSEB propose to continue charging double the rate for peak hour consumption as in the prevailing tariff.
Cross subsidy. If the subsidy given to Domestic and Agriculture sectors is reimbursed by Government the unit price of Industry can be reduced to cost price + 20%	The respondent has rightly pointed that as per the tariff policy, the tariff of Industries shall be within +20% above the average cost of supply. As per the prevailing tariff, the tariff of Industries is within this limit only.

Reduction in power tariff to EHT consumers taking into consideration lower T&D losses , lower administrative costs and almost zero theft	KSEB has proposed an increase Re1/- per unit only for the Power Intensive Industries, who use electricity as a basic input (raw material) for industrial production. KSEB had given various concessions to Power Intensive Industries earlier when Kerala had surplus power. But now the situation has completely reversed. At present, more than 50% of the demand is being met by purchasing thermal/ nuclear power from Central Generating Stations where the cost of energy is increasing every year. More over, throughout the Country, there was severe power shortages and KSEB is finding it difficult to get additional power from Thermal stations situated outside the State as well as to get allocation of power from stations being set up. So, KSEB proposes for an increase of Re 1/- per unit for power intensive industries, who use electricity as a raw material.
10. Kerala Co-operative Milk Marketing Federation LTD. Trivandru	
Request is to include Milma Diary Plants under HT I industrial Tariff. Chilling plant under Agriculture tariff.	Prior to the **Kerala State Electricity Board High Tension Tariff Revision Order, 1999**, **HT-I** tariff was applicable to *Water works, Printing Presses (including presses engaged in printing dailies), Plantations, Granite Crushing Units, Industrial consumers, hotels, lodges, commercial establishments, business houses, film studios and cinema theatres*. It may be noted that there was no HT-IV tariff available . As per the **Kerala State Electricity Board High Tension Tariff Revision Order, 1999**, the **HT – I (Industrial)** tariff was applicable to *"Water works, Printing Presses (including presses engaged in printing dailies), Plantations, Granite Crushing Units, Industrial consumers, Dairy Farms, Drinking water pumping for the public and all other non-agricultural pumping etc."* Board introduced a tariff category namely **HT-IV (Commercial)**. As per this order, **HT-IV (Commercial)** tariff was applicable to *"consumers such as Hotels/ Restaurants, Lodges, Hostels, Guest/Rest Houses, Travellers Bungalows, Cold Storage, Freezing Units, Commercial establishments, Business houses, Film Studios and Cinema Theatres etc.* In this connection, it is brought to the kind attention of the respondent that prior to tariff revision order,1999 there were only categories named as **HT-I, HT-II, HT-III and HT-Seasonal Consumers** and from 1999 onwards, the categories of HT consumers were named as **HT-I (Industrial), HT-II (Non-Industrial/Non-Commercial), HT-III (Agricultural), HT-IV (Commercial) and HT-V Seasonal Consumers**. It is pertinent to note that the above categoisation is meant only for bifurcating the consumer segment and not purely and strictly in accordance with the type/purpose of usage of electricity, but also in accordance with certain principles of social justice, economy and purpose of usage of electricity. (For e.g.: **Water Works, Drinking water pumping for the public and all other non-agricultural pumping** were included in HT-I (Industrial) category. It is clearly mentioned in the Agreement signed between Board and consumer

	that the tariff applicable to such consumers will be according to the ruling tariff from time to time. It is the Board to decide upon the competency of any officer to issue any such orders/circulars on behalf of the Board and no consumer has the right to challenge the authority of the officer of the Board upon such issues and the argument of the petitioner that the Deputy Chief Engineer (Commercial) is not the competent person to issue such an order is not sustaining.Kind attention of the respondent is invited to the judgment of the Hon. Appellate Tribunal for Electricity (ATE), New Delhi, in the appeal petition filed by M/s. Baby Marine Exports Limited, Calicut in a similar case of categorizing them under HT-IV category by the Board. The verdict of the Hon. ATE, New Delhi is a true and fact oriented judgment that freezing plants and cold storages as mentioned in the HT-IV tariff order of the Board which is statutory in nature. This upehlds the action of the Board in billing MILMA and other units under HT-IV (Commercial) where chilling/freezing plants are used.It is further submitted that as mentioned in para-6 of the objection filed by the Managing Director, MILMA, against the proposal on the Kerala State Electricity Regulatory Commission draft schedule of Tariff of terms and Conditions for retail supply by KSEB, Hon.High Court of Kerala by judgment dated 06-06-2007, directed the Board to bill the respondents (here MILMA) under HT-I tariff
11.The Chief Executive Officer Technopark Trivandrum	
Billing Demand for HT consumers. The proposal of KSEB to levy demand charges as 90% of the contract demand or meter demand reading whichever is higher will affect the flexibility to maintain reserve power as contract demand for giving allocation of power to IT companies on short notice.	KSEB have to plan and develop the entire power system right from generation, transmission and distribution according to the contract demand of its consumers. If the actual billing demand is much less than the contract demand, it will lead to under utilisation of the resources as well as under recovery of the cost incurred by KSEB for such consumers. In order to reduce the financial loss to the Board on such accounts , two possible options are either to recover part of the loss directly from such consumers or to pool the loss to all others. So Board proposed to raise the ceiling limit of the billing demand criterion from 75% of the Contract Demand to 90% of the Contract demand whereby part of the loss can be made good.
Bulk supply Grid tariff notification also mentions Industry along with Domestic agriculture etc. Grid tariff rate is given to Industry also with the objective of promoting Industry in the State.	The tariff of HT/EHT category is according to the voltage level at which supply is being given. For giving supply at a particular voltage, KSEB have to incur same cost whether they are industrial or Licensees. Since, the HT/EHT industrial tariff is the lowest, KSEB propose to charge the same tariff to licensees, who consume more than 50% of the energy purchased from KSEB for their own use. They *consume bulk power but doesnot supply power to the various sectors of consumers who are provided electricity at subsidized rates like domestic, agriculture, govt. offices, orphanages etc. as done by Licensees like KSEB, Trichur Municipal Corporation or Tata Tea .Hence such* bulk consumers presently under Licensee category, be charged at prevailing Industrial tariff according to the voltage level at which they avail supply.

Software Development and IT Industry Bringing the IT industry under commercial category will jeopardize and cripple the companies and drive away the industries to other States and the State will lose the huge revenue potential and job opportunities for the future generations	It may please be noted that, the KSEB proposed to provide electricity to various software parks and industrial parks such as Techno park, IT parks, etc at the prevailing EHT/HT tariff. As per the Electricity Act-2003, KSEB have to function on Commercial Principles. Presently, the authority of tariff determination , i.e, the tariff at which KSEB supply power to various categories is vested with KSERC. Government can direct KSEB to charge a consumer at a reduced tariff from the tariff fixed by the Commission, but the revenue loss on account of this will have to be given in advance to the Board.
Unaccounted Transformer loss	This will not be applicable to Licensees like Technopark.
One time capacity charge from EHT –HT consumers	KSEB have to incur huge capital investment in each year for developing the infrastructure in power sector such as capacity addition in generation, erection of new transmission lines and substations, developing distribution networks etc. As per the National Tariff Policy of the Central Government as well as various regulations of KSERC, KSEB have to incur 30% of the total investment as equity, its own fund and the balance is being met through debt. So, it will ultimately lead to reduction in annual interest cost and ultimately the tariff. It may be noted that, KSEB proposes only about 1/15th of the investment as one time capacity charges from EHT and HT consumers.
12. Shri.K.R. Jyothilal I.A.S Special Secretary, IT Department, Kerala	
Request is to continue IT industry under Industrial tariff	Considering the special nature of software business and revenue earned from such business KSEB proposed to bill the software business under commercial tariff. It may please be noted that, the KSEB proposed to provide electricity to various software parks and industrial parks such as Techno park, IT parks, etc at the prevailing EHT/HT tariff. As per the Electricity Act-2003, KSEB have to function on Commercial Principles. Presently, the authority of tariff determination , i.e, the tariff at which KSEB supply power to various categories is vested with KSERC. Government can direct KSEB to charge a consumer at a reduced tariff from the tariff fixed by the Commission, but the revenue loss due to such direction will have to be given in advance to the Board. The National Electricity Policy and Tariff Policy notified by the Central Government also had emphasised the boundary conditions for the role of the state Government in tariff determination. The section 8.2.1(3) of the National Tariff Policy stipulate that, the State Commission should ensure financial viability of the utilities. As per the Section-65 of the EA-2003, the State Government can grant any subsidy to any consumer or class of consumers, in the tariff determined by the Commission, but the Government may give the subsidy in advance as specified by the Commission and no such direction of the State Government shall be operative if the payment is not made in accordance with the provision in the Act.

	As per the section 5.5.4 of the **National Electricity Policy** of the Central Government, "*The State Governments may give advance subsidy to the extent they consider appropriate in terms of the section 65 of the Act in which case necessary budget provision would be required to be made in advance so that the utilities doesnot suffer financial problems that may affect its operations* As per the section 8.2.(3) of the National Tariff Policy," *no directions of the State Government regarding the grant of subsidy* *to consumers in the tariff determined by the State Commission* *shall be operative if the payment on account of subsidy as decided by the State Commission is not made to the utilities*." So for providing tariff concessions to any consumer as directed by the State Government, the revenue shortage on such decisions of the Government shall be provided in advance and also necessary budgetary provisions shall be made in the budget of the respective Government Department. So, it is requested before the Hon'ble Commission that necessary direction may be given to the Information and Technology department, Government of Kerala that, necessary budget provision may made in the budget of IT department for providing necessary subsidy to KSEB on account of giving electricity to Software industry at industrial tariff instead of commercial tariff, so that Commission can allow industrial tariff to all software industries
13. 'The Kerala HT& EHT Industrial Electricity Consumer's Association' dated 26-9-2007	
Cross subsidy In Kerala, instead of increasing the tariff of subsidised consumers such as domestic, agricultural categories etc, the same of cross subsidising categories are increasing . This is against the provisions in the Electricity Act, Tariff Policy and regulations of the KSERC	Continuation of subsidy and cross subsidy is part of the policy of the State / Central Government. The Respondent may be aware that, the Electricity Act-2003, originally envisaged was for complete elimination of subsidy/cross subsidy in a phased manner. But, the Act amended from 15th June 2007 allows to continue the subsidy and cross subsidy system. As per the section 108 of the Electricity Act 2003, the State Government vide G.O (MS) No. 34/06/PD dated 16-12-2006 had issued policy directions to the KSERC wherein it is specified that the existing subsidy/ cross subsidies should continue for some more time.
Government subsidy As per the directions of the State Government, the Commission had reduced the tariff of domestic and commercial consumers by 20 paise per unit with effect from 1-1-2006. In the order on tariff reduction, Commission has issued directions to provide the short fall in revenue due the proposed reduction as subsidy to KSEB.The respondent pointed out that, incase the State Government requires to grant of subsidy to any consumer or	As per the order issued by the Commission, KSEB has been collecting the tariff of domestic and commercial categories at 20 paise per unit less w.e.f 1-1-2006. The Government has expressed its inability to release any subsidy to KSEB on this account. It is the KSERC to ensure either release of subsidy by the State Government to the Board or give necessary orders to revert back to the original tariff prior to Jan 2006 for domestic and commercial categories.

class of consumers, it shall pay in advance, the amount of the subsidy in the manner the State Commissions may direct. But the State Government has yet to release any subsidy on this account. Respondent requested before the Commission to issue necessary orders to revert back to original tariff to domestic and commercial categories.	
Non- Compliance to Legislatory Requirements KSEB in its proposal has stated that certain provisions of the National Tariff Policy cannot be implemented in the State in view of the socio economic conditions prevailing in the State. The respondent questioned the authority of the KSEB to make such arbitrary consclusion.	KSEB is a public sector under taking under the State Government. So, unlike any private entrepreneur, KSEB have to follow and meet various social obligations and commitments . The respondent may please note that, KSEB has been providing free electricity to BPL domestic consumers with monthly consumption of less than 20 units. Steps have been taken to electrify villages and rural areas, which are not beneficial or remunerative to KSEB. KSEB has been releasing water from its reservoirs for drinking purposes, irrigation etc, even sacrificing power generation. Different drinking water schemes are provided with electricity at subsidised tariff. Settlements, colonies etc are provided with electricity neglecting its financial viability. KSEB has been implementing various policy directives and decisions of the State Government, most of them not financially beneficial for KSEB
KSEB has filed the tariff proposal after public hearing was conducted by the Commission.	It may please be noted that, the Commission had notified a suo motu draft tariff schedule on 23-4-2007 and allowed one month time to all stake holders to file objections, changes and comments on the draft. KSEB filed the proposal and changes on the draft tariff schedule notified by the Commission within the time frame allowed by the Hon'ble commission. The Commission had conducted a public hearing within the time allowed for filing objections.
Tariff rationalisation and cost to serve The respondent is for fixing the tariff based on the actual cost to serve.	The actual cost of supply theory is not adopted in any states in the Country and the basis is the average cost instead of the cost to serve. Gujarat SERC has fixed a cross subsidy surcharge of Rs 1.80 for open access consumers, TNERC has fixed an open access surcharge varying from Rs 0.97 to Rs 3.02 per unit. In other cases also, the cross subsidy surcharge is more than Rs 1.00 per unit. The respondent should be aware that, they are paying lesser tariff when compared to their counterparts in other States. Most of the industrialists in other states are depending on captive plants for their own use. But, in Kerala, even though state Government has issued various policy guidelines for attracting captive small hydel plants, most of them are not interested and only a few have come forward in developing the same. Availability of power in the state may be the reason for not accepting it.
Irrational definition of power intensive consumers	The objectioner may please not that, the proposed tariff increase is only for those industries, who consume electricity as the basic input for their industrial activity. Implementation of new generation projects including hydel stations remains a dream due to objections from various environmental

	groups etc. To meet the increase in energy demand, KSEB had been purchasing energy from liquid fuel stations and other thermal stations. Energy from Central sector is also becoming inadequate to meet the increase in demand. In order to limit the electricity purchase from such sources, KSEB has been taking efforts to contain the electricity consumption through various measures. Also, as per the Electricty Act 2003, KSEB have to function on commercial principles. It is known to every body including the Hon'ble Commission and the respondent that, the per unit cost of electricity, which was Rs 4.57 per unit in 2003-04 was brought down to Rs 3.52 per unit in 2005-06. Despite these efforts, the unbridged revenue gap of the previous years is widening over the years.
Irrational increase in minimum payable monthly demand charge	KSEB have to plan and develop the power system according to the contracted demand of its consumers. If the actual billing demand is much less than the contracted demand, it may lead to under utilisation of the resources as well as under recovery of the cost incurred. In order to reduce the financial loss to the Board on such accounts, Board proposed to raise the ceiling limit of the billing demand criterion from 75% to 90% of the Contract demand. If the billing demand of a consumer is continuously less than his original contract demand, he has the option to reduce his Contract Demand. But whenever the demand exceeds the revised contract demand , a penalty will be payable . The demand they surrender can be diverted to other consumers who are in need of extra capacity, instead of blocking the capacity without any financial commitment to him as per prevailing billing system.
Illogical introduction of One Time Capacity charge	KSEB have to incur huge capital investment in each year for developing the infrastructure in power sector such as capacity addition in generation, erection of new transmission lines and substations, developing distribution networks etc. As per the National Tariff Policy of the Central Government as well as various regulations of KSERC, KSEB have to incur minimum 30% of the total investment as equity from, its own fund and the balance 70% alone is allowed to be met through debt. So, it will ultimately lead to reduction in annual interest cost and ultimately the tariff. It may be noted that, Rs.5000/KVA proposed as one time capacity charges from EHT and HT consumers is only about 1/15th of the investment.
Discrepancy in projected additional revenue from Tariff Proposal	The respondent may note that, the additional revenue due to the proposed tariff increase from the existing power intensive industries (HT & EHT)is estimated and given in the petition. The additional revenue due to the proposed changes in the definition of power intensive industries is very difficult to estimate.
Additional revenue from Hydel Generation	It is totally baseless.
The respondent has pointed out that, there will be an additional income of Rs 600 crores due to the increase in rainfall received.	The respondent may be aware that, the total storage capacity of the hydel reservoirs owned by KSEB is 4130MU only. Normally, due to spill threat and other reasons, the maximum allowable

	storage is about 95%, i.e 3925MU only. Due to the limitation in storage capacity, a major portion of the additional inflow received is being spilled. Almost, all the hydel plants are operating at full load to reduce the spillage during the last few weeks, even through there was not much demand of power during these days. Also please note that, the average revenue received from the surplus sale through UI export during most of the days was less than Rs 1.00 per unit. KSEB can get additional income as projected by the respondent if KSEB can carry forward the additional inflow received for the use in summer months which is totally impossible with the present storage capacity. For the same , KSEB need to develop more and more storage plants in the State. Due to objections from the environmentalists, KSEB was not able to start new hydel projects since implementation of Idamalayar project. KSEB seeks support and cooperation of all including the respondent in developing more and more hydel projects in the State so that KSEB offer electricity at most competitive rates to HT&EHT consumers.
Time of Day Tariffs and Load factor incentive The objector has requested before the Commission to provide load factor incentive similar to the one introduced in Maharastra, Andhra Pradesh etc and argued that such a scheme incentivise the industry to utilise in a better way and to flatten load curve.	The Board is not against giving incentives to any category of consumers, provided any such incentive should be beneficial for KSEB also and should not be at the cost of other consumers. There are pricing schemes and incentives such as , ToD pricing, PF incentive. But they haven't helped to provide appreciable impact on the peak demand flattening, drop in system demand etc. Every state region has its own unique characteristic features which will have direct reflection on the electricity demand and consumption also. KSEB system is entirely different from the power system of the other southern states on account of various special aspects like social cultural, economic conditions, demography, consumption patterns etc. So, the incentives or penalty schemes existing in other places cannot be copied as such without conducting extensive studies with reference to the KSEB system and any such attempt without indepth study may fetch adverse results.
Power Factor Incentive The objector requested to provide higher incentives for maintaining power factor between 0.9 and 1.00	As directed by the Hon'ble Commission, KSEB has introduced power factor incentive to HT&EHT consumers. KSEB has been studying the benefits of KSEB on implementing the same. It may noted that, as a hydel predominant state, KSEB can easily manage the power factor corrections with KSEB's hydel plants and it is found much cheaper than power factor improvement through providing incentives. Also we have is installed our own capacitor banks in number of substations towards improving voltage and power factor and the benefits through the same is also being studied in detail especially due to the peculiar consumption pattern prevalent in the State.

13.Southern Railway. Chennai	
The respondents requested to fix the Railway Traction tariff on the basis of cost to serve with lowest level of cross subsidy	KSEB had given various concessions to Railways earlier when Kerala had surplus power. But now the situation has completely reversed. At present, more than 50% of the demand is being met by purchasing energy liquid fuel stations and other thermal stations, where the cost of energy is increasing every year. More over, throughout the Country, there is severe power shortage and KSEB is finding it difficult to get additional power from Thermal stations situated outside the State as well as to get allocation of power from stations being set up . Moreover implementation of generation projects including hydel stations in tune with the increasing demand remains a dream due to stiff resistance from environment group. Assessment of the actual cost of supply to each category of consumers as per prevailing ABT regime is difficult. The tariff policy notified by the Central Government is for tariff based on the average cost of supply and not on actual cost of supply.
Rebate on traction tariff for the new electrification projects.	The Hon'ble commission may take a decision.
The minimum billing demand be kept the existing level of 75% of Contract Demand	KSEB have to plan and develop the entire power system right from generation, transmission and distribution according to the contract demand of its consumers. If the actual billing demand is much less than the contract demand, it will lead to under utilisation of the resources as well under recovery of the cost incurred by KSEB for such consumers. In order to reduce the financial loss to the Board on such accounts , two possible options are either to recover part of the loss directly from such consumers or to pool the loss to all others. So Board proposed to raise the ceiling limit of the billing demand criterion from 75% of the Contract Demand to 90% of the Contract demand. If the billing demand of a consumer is continuously less than the original contract demand , he can opt for reduction in contract demand whereby the surrendered demand can be diverted to other customers who are in need . Thus blocking the capacity without any financial commitment to him as per the prevailing billing system can be by raising the ceiling limit of billing demand.
One Time capacity charges from EHT and HT including Railways.	KSEB have to incur huge capital investment in each year for developing the infrastructure in power sector such as capacity addition in generation, erection of new transmission lines and substations, developing distribution networks etc. As per the National Tariff Policy of the Central Government as well as various regulations of KSERC, KSEB have to incur 30% of the total investment as equity from its own fund and the balance is being met through debt. So, it will ultimately lead to reduction in annual interest cost and ultimately the tariff. It may be noted that, KSEB proposes only about 1/15th of the investment as one time capacity charges from EHT and HT consumers.
Incentive for prompt payment.	Board is giving incentive for **advance** payment , 4% for one year and 2% for six months. For HT&EHT category, the monthly bills were raised one month after the actual use. It is the duty of the every consumer to pay the bill for their electricity use.

Domestic consumption wherever metered under HT II/LT VI© / LT II be charged under LT domestic rate by dividing the total consumption by the number of residential units and LT IA tariff for such consumption be applied at par with the other domestic consumers availing direct LT supply	The Hon'ble commission may take a decision
Introduce new category HT (Domestic) feeding predominantly residential loads with demand Charge lower than the present HT II tariff	The Hon'ble commission may take a decision
Railway stations, Railway offices, Maintenance sheds, workshops be changed from LT VI C to LT IV as Railway also falls in the category of transportation Industry.	Railway is functioning as a commercial establishment and all the revenue collection centers and other officers are billed under commercial tariff.
15. M/s BINANI ZINC LIMITED, BINANIPURAM, ERNAKULAM DIST	
Additional Energy charge Re 1/unit	KSEB in the petition, proposed Re1/- per unit increase only for Power Intensive Industries, who use electricity as a basic input (raw material) for industrial production. KSEB had given various concessions to Power Intensive Industries earlier when Kerala had surplus power. But now the situation has completely reversed. At present, more than 50% of the demand is being met by purchasing energy from liquid fuel stations and other thermal stations where the cost of energy is increasing every year. More over, throughout the Country, there is severe power shortage and KSEB is finding it difficult to get additional power from Thermal stations situated outside the State as well as to get allocation of power from stations being set up. Moreover implementation of generation projects including hydel stations in tune with the increasing demand remains a dream due to stiff resistance from environment group. Also, considering the policy directions of the State Government as well as socio-economic reasons, KSEB is not in a position to propose tariff increase for domestic ,agriculture and other such categories. So, KSEB proposed an increase of Re 1/- per unit for power intensive industries, who use electricity as a raw material.
Double Charges during peak hours	The double charges for consumption during peak hour is still prevailing for all Power Intensive Industries.. KSEB did not propose any change in it and therefore it is not a new proposal .But it may be noted that, the peak demand in the State is about double the base demand and the increase in demand is met from liquid fuel stations, whose variable cost of energy is about Rs 6/- per unit or over more. In order to restrict the peak demand, KSEB had been taking various steps such as TOD pricing for HT & EHT consumers etc. But even with all these efforts, the peak demand is increasing at a faster rate. So, to restrict the peak demand, KSEB propose to continue the double energy charge for the peak hour consumption as in the prevailing tariff for all power intensive industries.

Classification of Power Intensive Industries	As per the existing tariff order, all the power intensive industries given power allocation on or after 17-12-2006 were charged double the energy rate for peak hour consumption. Hon'ble KSERC, in its draft tariff schedule, proposed to charge all the power intensive consumers (irrespective of date of power allocation) at double the rate for peak hour consumption. KSEB welcomes this. It may be noted that KSEB had surplus power during the early 80's and till 90's and various tariff concession were offered to different categories of consumers especially to industries . Such industries have continued to harvest the benefits . But now, the conditions have totally reversed . KSEB is facing power shortages and more than 50% of its demand is met by purchasing power from costly thermal stations. So, now KSEB is not in a position to continue with such tariff concessions to industries or else the burden will have to be loaded on to other categories of consumers.
One time capacity charges	KSEB have to incur huge capital investment in each year for developing the required infrastructure in power sector such as capacity addition in generation, erection of new transmission lines and substations, developing distribution networks etc. As per the National Tariff Policy of the Central Government as well as various regulations of KSERC, KSEB have to incur 30% or more of the total investment as equity and the balance through debt, which will ultimately lead to reduction in annual interest cost . It may noted that, KSEB propose only about $1/15^{th}$ of the investment as one time capacity charges from EHT and HT consumers.
Cost related tariffs	The actual cost of supply to each category of consumers is difficult to determine especially when cost of energy is highly volatile in the present ABT regime . The tariff policy notified by the Central Government is for tariff based on the average cost of supply and not for actual cost of supply.
Additional revenue from Hydel Generation	The respondent may be aware that, the total storage capacity of the hydel reservoirs owned by KSEB is 4130MU only. Normally, due to spill threat and other reasons, the maximum allowable storage is about 95%, i.e 3925MU only. Due to the limitation in storage capacity, a major portion of the additional inflow received is being spilled. Almost, in order to reduce the spillage, all the hydel plants are operating at full load during the last few weeks, even through there was not much demand of power during these days. The respondent may be note that, the average revenue received from the surplus sale through UI export during most of the days was less than Rs 1.00 per unit . But if KSEB can carry forward the additional inflow received for the use in summer months, KSEB can get additional income as projected by the respondent which is totally impossible with the present storage capacity. For the same , KSEB need to develop more and more storage plants in the State. The respondent may be aware that, due to the objections from the environmentalist, KSEB was not able to start new hydel projects since implementation of Idamalayar project. KSEB seeks support and cooperation of all including the respondent in

	developing more and more hydel projects in the State so that KSEB offer electricity at most competitive rates to HT&EHT consumers.
Discrepancy in projected additional revenue from Tariff Proposal	The respondent may please note that, the additional revenue due to the proposed tariff increase from the existing power intensive industries (HT & EHT)is estimated and given in the petition. The additional revenue due to the proposed changes in the definition of power intensive industries is very difficult to estimate.