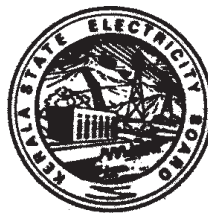


ANNUAL ADMINISTRATION REPORT

2008 - 09



KERALA STATE ELECTRICITY BOARD

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PREFACE

It is with a sense of pride and satisfaction that I am presenting before you the 52nd Annual Administration Report of Kerala State Electricity Board, for the year ending 31st March 2009. This has been yet another year of robust performance by KSEB. We were able to provide quality power to the majority of the consumers without any change in tariff, in spite of the increase in input costs.

The total installed capacity rose by 27.5 MW with the commissioning of the Neriamangalam Extension scheme (25 MW), from the Kuttiyadi Tail Race (2.5 MW) and the uprating of unit 2 of Sabarigiri power station (5 MW), thereby increasing the total installed capacity to 2693.40 MW. But, due to the shut down of Panniar powerhouse and the disaster at Sabarigiri, the total installed capacity now in operation is only 2110.85 MW. The remaining unit of the Kuttiyadi Tail Race, the Kuttiar Diversion Scheme & Kuttiyadi Additional Extension Scheme are progressing fast, and are to be commissioned shortly.

The transmission wing was scaled up by adding 194.883 kms of EHT lines, up grading two 110 KV substations and commissioning of sixteen 33 KV substations. Prudent power management initiatives have resulted in a situation wherein the consumers of this State were ensured with minimal power cuts and load shedding. Voltage & frequency of the power system was maintained within the specified limits. The availability of EHT & HT feeders was around 98%.

To ensure quality power to our consumers, the distribution sector was strengthened by adding 3018 km of HT lines, 7636 km of LT lines and 4109 distribution transformers. T & D loss was reduced during 2008-2009 to 20.45 % from 21.63 % in the previous year, in line with the efforts of reducing the loss by about 2 % every year.

Reforms in power distribution were carried out under APDRP (Accelerated Power Development Reforms Programme), a major initiative by the Government of India for improving the commercial viability of the distribution sector. This scheme came to an end during March 2009 and to maintain continuity to the distribution reforms, the scheme was rechristened as R-APDRP (Restructured APDRP) with revised terms and conditions, which primarily aims at reducing the Aggregate Technical & Commercial (AT&C) losses in urban areas & making the distribution business commercially viable.

The operations of Antipower Theft Squad (APTS) were active with a total of 15792 inspections being conducted during the year. Effective remedial measures were also taken against the 2782 cases, which were detected as theft/misuse of energy.

Results for 2008-09 indicates a continuing trend of improvement in the financial and operating performance on account of strategic initiatives for improving the power management and overall productivity & efficiency coupled with cost reduction effects. As a result revenue deficit was reduced from Rs.1007.43 Crores in 2003-04 to Rs.749.17 Crores in 2008-09 (provisional). Efficient financial management resulted in reducing the outstanding loan from Rs.2498.52 Crores (as on 31.03.08) to Rs.1856.72 Crores (as on 31.03.09).

I wish to express my gratitude to the Government, KSERC, State Planning Board and to the Board Members for their support and encouragement. I place on record, my sincere appreciation for the contribution made by the employees at all levels, and thank them for their co-operation & support.

Thiruvananthapuram
Date: 04.12.2009.

Rajeev Sadanandan
Chairman.

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1. MANAGEMENT

1.1 The Kerala State Electricity Board (KSEB) is a statutory body constituted under Section (5) of Electricity (Supply) Act, 1948. It has a seven member Board, headed by the Chairman, which takes management decisions and reviews and evaluates the operations of the organization. Apart from providing infrastructure to all developmental activities in the state, the Board fulfils the social responsibility of providing electricity to vast majority of households in the State, at an easily affordable cost. The Board met twelve times to transact various businesses during 2008-09.

1.2 In consistence with the State Power Policy, the Board has been functionally organized into three business entities namely Generation Profit Centre, Transmission Profit Centre & Distribution Profit Centre with a Corporate Office for co-ordination. After the enactment of Electricity Act, 2003, KSEB has been functioning as the State Transmission Utility (STU) and a distribution licensee w.e.f 10.12.2004 under section 172(a) of the Electricity Act, 2003.

1.3 The Central Government had approved the continuation of KSEB as a State Transmission Utility & Licensee only up to 24.09.2008. In exercise of the powers conferred under sub-sections (1), (2), (5), (6) and (7) of section 131 and section 133 of the Electricity Act 2003 (Central Act 36 of 2003) the Government of Kerala had issued notification vide G.O. (MS) No.37/2008/PD, Dated, Thiruvananthapuram, 25th September, 2008 for the purpose of vesting of functions, properties, interests, rights, obligations and liabilities of the Kerala State Electricity Board in the State Government on such terms as agreed to by the Kerala State Electricity Board and the State Government and re-vesting thereof by the State Government in a Corporate entity and also for the transfer of Personnel of the Board to the Corporate entity and for determining the terms and conditions on which such transfers and vesting shall be made.

Accordingly, with effect from 25.09.2008, all the functions, properties and all interests, rights in properties, all rights and liabilities of the Board are vested in the State Government. All these functions and undertakings of the Board as vested in Government shall be re-vested in a company to be incorporated as a fully owned Government company under the Companies Act, 1956.

Members head the profit centers, with well-defined roles and responsibilities.

MEMBERS OF THE BOARD DURING 2008- 09

1 Chairman	Sri.Rajeev Sadanandan IAS (from 01.01.2008 onwards)
2 Member (Finance)	Sri.Mathew George (from 01.08.2007 onwards)
3 Member (Distribution)	Sri.K.Asokan (from 01.03.2008 onwards)
4 Member (Transmission)	Sri.K.Asokan (from 17.12.2007 onwards)
5 Member (Generation)	Sri.K.Asokan (01.03.2008 to 17.04.2008) Sri.Johnson Jacob (18.04.2008 to 30.10.2008)



	Sri.T.P.Vivekanandan (from 05.11.2008 onwards)
7 Member (Ex-Officio)	Sri. L.Radhakrishnan, Secretary to Government, (Power Department) (from 01.01.2008 onwards)
8 Member (Ex-Officio)	Sri. Jose Cyriac, IAS, Principal Secretary to Government, (Finance Department)(28.06.2004 to 23.01.2008.) Sri. L.C. Goyal, Principal Secretary to Government, (Finance Department)(from 18.04.2008 onwards)
9 Member (Non-Official)	Sri. M.V. Jayarajan (from 09.06.2006 onwards)

KSEB is functionally organised as three profit centres as follows:

- **Generation Profit Centre (GPC)**
- **Transmission Profit Centre (TPC)**
- **Distribution Profit Centre (DPC)**

There is a Corporate Office to co-ordinate and control the activities of the Board in a systematic manner.

1.3.1 GENERATION PROFIT CENTRE

1.3.1.1 The Member (Generation) heads the Generation Profit Centre (GPC). The five Chief Engineers manage the operations of the GPC.

- Chief Engineer (Generation)
- Chief Engineer (Projects Electrical Designs)
- Chief Engineer (Civil Construction - South)
- Chief Engineer (Civil Construction - North)
- Chief Engineer (Investigation, Planning, Design and Safety of Dams)

1.3.1.2 GPC operates and maintains 26 hydroelectric generating stations, 2 thermal power plants and the wind farm at Kanjikode. Renovation, modernization and up rating works of the hydroelectric projects are also being carried out. Investigation, planning and design of all hydroelectric projects, land acquisition matters connected with various hydel projects, work connected with the environmental aspects of generation schemes, safety and maintenance of dams and connected structures, construction work of all hydroelectric and thermal projects come under the profit centre. Other activities include construction and maintenance of various office buildings, fabrication of line materials for distribution, yard structures for substations and accessories to hydraulic structures. The GPC also monitors the progress of schemes implemented through private agencies and local self-government.



1.3.2 TRANSMISSION PROFIT CENTRE

1.3.2.1 Member (Transmission) heads the Transmission Profit Centre (TPC). Three Chief Engineers as shown below manage the operations of TPC

Chief Engineer (Transmission North)

Chief Engineer (Transmission South)

Chief Engineer (Transmission) - System Operations

1.3.2.2 TPC manages the construction, operation and maintenance of EHT substations and transmission lines and the supply of power to EHT consumers. TPC is responsible for implementation of transmission loss reduction programmes and co-ordinating activities for system development with other sectors of Board. TPC manages the ongoing works of the Master Plan Divisions at Thiruvananthapuram, Ernakulam and Kozhikode. TPC has absolute control over all load dispatch activities, with full responsibility for real time management and matters pertaining to protection system and communication system. Scheduling of generation, scheduling of annual maintenance, import of power from independent power producers and central generating stations are managed by this centre. Other important activities include, monitoring of daily system statistics, implementing policy matters related to merit-order dispatching, communication planning, networking of computers and co-ordination of activities under the system operation circles.

1.3.3 DISTRIBUTION PROFIT CENTRE

1.3.3.1 Member (Distribution) heads the Distribution Profit Centre (DPC). Three Chief Engineers shown below, manage the operations relating to distribution of power.

Chief Engineer (Distribution North)

Chief Engineer (Distribution Central)

Chief Engineer (Distribution South)

1.3.3.2 DPC controls distribution of electrical energy in the state, construction, operation and maintenance of distribution network including 11kV lines, LT lines, distribution transformers and other allied installations. DPC monitors energy transactions, revenue realisation, voltage improvement / system improvement works and master plan works. DPC implements and monitors APDRP and RGGVY schemes under central assistance. Works under MP LAD/MLA LAD/Kerala Development Scheme are also undertaken by DPC.

1.4 CORPORATE OFFICE

1.4.1 Corporate office manages the corporate affairs of the Board. Financial management, materials management, corporate planning, legal affairs, reforms, human resources management, tariff and commercial matters are some of the key functions carried out by the



corporate office. The Secretary is the authorised representative of the Board for general administration and legal matters. Heads of the Departments of the corporate office functioning under the direct supervision of the Chairman are as follows:

Inspector General of Police (Vigilance and Security)
Legal Adviser and Disciplinary Enquiry Officer
Chief Engineer (Corporate Planning)
Chief Engineer (HRM)
Chief Engineer (T C & M)
Director (IT) & SPIO
Secretary
Personnel Officer
Public Relations Officer

1.4.2 Member (Finance) exercises control over the financial management, internal audit, tariff and commercial aspects of the Board and is assisted by the following Heads of Departments:

Financial Advisor
Chief Engineer (Commercial & Tariff)
Chief Internal Auditor

1.5 The organisation chart of Kerala State Electricity Board as on 31.03.2009 is shown in **Annexure - 1A**.



2. PERFORMANCE OF THE BOARD - AN OVERVIEW

Electricity sector in the country is now in a transition phase. The Electricity Act, 2003 was enacted to replace the Electricity Supply Act 1948 with a primary goal to improve the efficiency and quality of power sector services. The KSE Board has been taking several initiatives to improve its physical and financial performances during the past several years, and even well before the enactment of the Electricity Act, 2003. The consistent efforts have started yielding commendable results. The success of KSEB has been appreciated at the national level as well.

2.1 PHYSICAL PERFORMANCE

2.1.1 A gist of various developmental activities carried out by the Board in the generation, transmission and distribution sectors during the recent years are given below.

Physical Performance during last five years

Particulars	Addition during the Years				
	2004-05	2005-06	2006-07	2007-08	2008-09
(a) GENERATION					
Capacity Additions (MW)	3.00	14.00	13.00	5.00	27.5
(b) TRANSMISSION					
EHT Substation (nos)	26	19	15	16	18
EHT Lines (circuit Km)	206	256	107	108	176
(c) DISTRIBUTION					
No of consumers (lakh)	5.48	5.48	4.79	4.82	4.45
LT lines added (circuit km)	4725	6439	8229	8128	7636
HT Lines added (circuit km)	675	1062	1819	1807	3018
No. of distribution transformers added	1894	1778	2148	2553	4109

2.1.2 AT & C Loss reduction

Since 2001-02, the Board has been able to achieve significant reduction of losses in the system by replacement of faulty meters and electromechanical meters by electronic meters, strengthening anti-theft activities, system improvement schemes, energy audit etc.

The total loss in the system in 2003-04 was 28.46 %, which has been reduced to 20.45% towards the end of 2008-09. The T&D losses in the system, reduction achieved and financial savings accrued to the Board are given in the following table.

**IMPACT OF T&D LOSS REDUCTION**

Year	Energy sold (MU)	Total energy generated and purchased (MU)	T&D Loss %	Extent of reduction (%)		Impact of loss reduction (estimate)	
				Yearly	Cumulative	Savings in MU	Amount in Rs. Crore
2003-04	8910.8	12455.37	28.46				
2004-05	9384.4	12719.77	26.22	2.24	2.24	284.92	62.68
2005-06	10269.8	13618.96	24.59	1.63	3.87	527.05	115.95
2006-07	11331	14798.06	23.43	1.16	5.03	744.34	163.76
2007-08	12049.9	15375.55	21.63	1.8	6.83	1050.15	231.03
2008-09	12414.32	15606.09	20.45	1.18	8.01	1250.05	275.01

KSEB has been taking earnest and sincere efforts to reduce the T&D losses over the year and was able to reduce the loss by 8.01% during the period from 2003-04 to 2008-09. It may be observed that increase in requirement of energy could partially be met by way of T&D loss reduction instead of resorting to purchase of costly energy. It is estimated that, there is a saving to the tune of Rs.275.01 crore @ average power purchase rate of Rs.2.20 per unit for the year 2008-09 alone.

2.2 EFFICIENCY IN POWER PURCHASE AND GENERATION

2.2.1 KSEB has been scheduling the generation and power purchase strictly on the basis of merit order of cost of energy.

- ❖ In 2008-09, KSEB had scheduled energy to the tune of 587.8 MU from BSES, Kochi at an average rate of Rs. 6.53/unit and 838.08 MU from RGCCPP, Kayamkulam at an average rate of Rs. 6.71/unit for KSEB's own use.
- ❖ KSEB was able to achieve a hydel generation of 5839.28MU during 2008-09 by minimizing spillage of water and by putting all units under service with minimum breakdowns.
- ❖ KSEB has sold 428.88 MU of surplus energy through traders at an average rate of Rs.8.925/ unit and purchased 218.53 MU through traders at an average rate of Rs.6.78/ unit to meet the peak demand on merit order basis.
- ❖ KSEB was able to sell 111.5887 MU from RGCCPP, Kayamkulam and earned Rs.12.29 crores as comfort charges towards reduction in fixed cost. KSEB has also sold 259.495 MU from BSES and earned Rs.32.4369 crores as comfort charges towards reduction in fixed cost.



❖ KSEB has also sold 20 MU from Diesel stations and earned Rs.3.9 crore.

2.3 FINANCIAL PERFORMANCE

2.3.1 Swapping of High Cost Loans

The Board, by taking advantage of the then prevailing interest rates in the financial market had swapped the high cost outstanding loans by borrowing fresh loans at low interest rates or by using internal resources. So far, KSEB has swapped Rs. 2284.39 crore of loans, saving an interest liability of Rs.312.95 crore payable during the rest of the repayment period of the loans and an annual savings of Rs.83.30 crore. The details of the swapping done are given in **Annexure 2A**.

2.3.2 Restricted borrowing and reduced liabilities

As may be seen from the following table, by restricting the fresh borrowings and repaying the debts promptly, the Board has substantially reduced the outstanding debts.

Outstanding loan liabilities

Rs.in Crore

Year	Loan Outstanding (OB)	Loan Received	Repayment	Closing Balance (CB)	Increase over Previous Year	Interest due for payment	Increase in interest over previous year
2002-03	4771.9	1380.25	1057.99	5094.16	322.26	597.88	-7.01
2003-04	5094.16	2013.39	1751.9	5355.65	261.49	622.16	24.28
2004-05	5355.65	582.15	1396.48	4541.32	-814.3	549.55	-73.29
2005-06	4541.32	379.44	1207.15	3713.62	-827.7	478.91	-70.64
2006-07	3713.62	41.09	1256.19	2498.52	-1215.09	329.67	-149.24
2007-08(Prov.)	2498.52	3.08	644.88	1856.72	-641.8	244.53	-85.14
2008-09 (Prov.)	1856.72	94.49	850.85	1100.37	-756.35	164.01	-80.52

2.3.3 Reduction in interest payment

Due to swapping of high cost loans, reduction in outstanding loans, fresh borrowings from least cost sources and reduction in cost of raising finance by way of dispensing with Government guarantee, upfront payments and commitment charges etc, the Board has substantially reduced the interest burden.

2.3.4 Increase in revenue

The following table shows the revenue earned by the Board from sale of power and other income.

**Details of Revenue Earnings**

SI No	Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
1	Energy sold (MU)					
	To the consumers with in the State	9384.4	10269.8	11331	12050	12414.32
	Out side the state (surplus energy sale)		635.9	1046.89	1346.76	463.33
	Total sale	9384.4	10905.7	12377.9	13396.76	12877.65
2	Income					
	From Tariff (Rs. Cr)	2917.36	3367.3	4009.7	4696.95	4893.02
	Non tariff (Rs. Cr)	339.63	325.43	406.47	438.89	456.79
	Total (Rs. Cr)	3256.99	3692.73	4416.17	5135.84	5349.82

Despite the fact that the tariff for majority of the consumers in the state has not been revised in the recent past, the Board could increase its revenue to a considerable extent over the years.

This was achieved by

- Increase in the sale of energy.
- Effecting disconnection / dismantling and RR action against defaulters for improving revenue realization.
- Reducing the commercial losses by replacement of faulty and sluggish meters by electronic meters.
- Conducting special revenue recovery adalaths at the level of distribution circles.
- One time settlement option to settle long pending arrears of electricity charges.
- Tapping the non tariff income sources
- Intensification of anti power theft activities.
- Prudent planning of generation so as to get maximum advantage of UI.
- Sale of power to other utilities at competitive rates.

2.3.5 Reduction in Revenue Gap

By way of improvement in physical performance, progressive reduction in T&D loss, economy measures in power purchase, reduction in outstanding liabilities and interest cost and other economy measures, the Board could reduce the revenue gap to a large extent from Rs.1007.43 Crore in the year 2003-04 to Rs. 749.17 Crore in the year 2008-09, without upward revision of tariff since October-2002. The details of the reduction in revenue gap are given below.



Revenue Gap

Rs.in Crore

Year	Income			Total Expenditure	Revenue Gap
	Tariff	Non tariff	Total		
2003-04	2756.09	304.66	3060.75	4068.18	-1007.43
2004-05	2917.36	339.65	3257.01	3599.77	-342.76
2005-06	3367.30	325.43	3692.73	3837.32	-144.58
2006-07	4009.70	406.47	4416.17	4558.40	-142.23
2007-08(Prov)	4696.95	438.89	5135.84	5227.13	-91.29
2008-09 (Prov)	4893.02	456.79	5349.82	6098.99	-749.17

The average cost of supply per unit, revenue realization and the gap are given below, which indicate reduction of cost, increasing trend in revenue realization and reduction in revenue gap over the years.

Comparison of per unit cost of supply and realisation

(Rs/kWh)

	Particulars	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
(i)	Average cost of supply	4.57	3.84	3.52	3.68	3.9	4.74
(ii)	Average revenue realized	3.43	3.47	3.39	3.57	3.83	4.15
	Gap = (i) - (ii)	1.14	0.37	0.13	0.11	0.07	0.58

2.3.6 Comparison of Expenses and Revenue

Comparison of the various components of expenditure over the last five years is given in **Annexure 2B** and the comparison of the item wise expense to the total expenditure is given in **Annexure - 2C**.

From the above it can be seen that the Board was able to reduce the per unit cost of almost all items in the year 2007-08, over the previous years. There was a considerable reduction in the major components such as cost of generation, cost of power purchase, interest and finance charges, etc. The revenue gap per unit, which was in the range of Rs. 1.15 per unit in 2002-03, was reduced to Rs.0.58 per unit in 2008-09. An abstract of the revenue expenditure is shown in **Annexure - 2D**.

2.4 MEASURES TAKEN TO IMPROVE CONSUMER SATISFACTION

2.4.1 Constitution of Advisory Committee for Distribution Profit Centre.

Board has constituted an Advisory Committee for Distribution Profit Centre for evaluating various proposals on simplification of procedures and improving of performance of the Distribution Wing that are received from various field officers and from consumers. The committee, after in-depth analysis of core issues make comprehensive suggestions to the Board within the stipulated time.

2.4.2 Steps taken for standardisation and Simplification of Procedures

During the year 2008-09, KSE Board has taken a number of initiatives for ensuring consumer satisfaction. Officers were delegated with more powers for delivering quicker service



to consumers and service connection procedures were simplified.

- ❖ Assistant Engineers were delegated with powers to sanction temporary & permanent (both single phase and three-phase) service connections up to 20 KW (except Agricultural & Industrial) and also delegated with powers to sanction out of turn priorities as per guidelines issued by Board from time to time.
- ❖ Authority delegated with the powers to approve service connection was delegated with powers to sanction OYEC.
- ❖ Assistant Engineers were also delegated with power for Administrative Sanction up to Rs. 10,000/- with powers to sanction the deposit works within that limit.
- ❖ Executive Engineers concerned were authorised for arranging the preparation of mahasser, passing of award, payment of compensation etc in respect of HT lines. It was ordered that sanction from superior officer is not needed for taking up these works.
- ❖ Service connection application form was simplified. The application booklet having 56 pages was simplified to 2 pages. The Deputy Chief Engineers of Electrical Circles were authorised to print sufficient numbers of service connection application forms and guidelines to consumers.
- ❖ The cost of application form was reduced from Rs 25/- to Rs 10/-.
- ❖ The application forms are made available in cash counters of Electrical Sections, Electrical Divisions and Circle offices and through FRIENDS counter.
- ❖ The practice of executing agreement in non-judicial stamp paper was dispensed with in the case of LT service connections.
- ❖ The rate of initial security deposit was unified.
- ❖ Assistant Executive Engineers of Electrical Sub Division were authorised to change tariff of consumers (from higher to lower tariff) in bonafide cases, at the request of consumer.
- ❖ Applicants for Weather Proof service connections not requiring phase addition, post insertion, support post etc are given an option to remit CD & SCC/OYEC amount at standard rates on the basis of data furnished by him/her in the application form, along with the AF, prior to site inspection by the field officer.
- ❖ Applicants for service connection are given an option to submit applications through registered post, along with crossed DD towards application fee for service connection favouring Assistant Engineer of the concerned Electrical Section.

2.4.3 Constitution of Advisory Committee for Distribution Profit Centre.

For minimizing the supply interruption, effective utilization of transmission capacity (lines as well as substation) and for system improvement, there should be proper interaction and co-operation between the Distribution and Transmission wings. To achieve the above goals, Board has constituted a Circle level Co-ordination Committee of Transmission and Distribution wings vide B.O.(FM)No.869/2008 (DPCIII/T&DCC/2008-09) dated 5.4.2008..

2.4.4 Target of BPL and OTP consumers made 'Up-to-Date'.

During the year 2008-09, Board has revised the target date of Overhead and Weatherproof service connections of consumers falling under Below Poverty Line category and that of consumers eligible for Out of Turn Priority in Overhead category, as "Up to Date".



3. GENERATION PROFIT CENTRE

The achievements of the Generation Profit Centre during the year 2008-09 are detailed below.

3.1 The renovation, modernization and uprating of Sabarigiri power station is in progress. Renovation work of Unit 2 of Sabarigiri power station was completed on 07.02.2009 by increasing installed capacity by 5 MW. The system installed capacity rose by 25 MW with the commissioning of the Neriamangalam Extension Scheme on 25.05.2008. Another 2.5 MW was added to the system with the commissioning of two units of 1.25 MW each of the Kuttiyadi Tail Race Scheme on 09.11.2008. The total installed capacity of the power system is 2693.40 MW, while the total installed capacity now in operation is 2110.85 MW. Details of commissioned projects as on 31.03.2009 are given in **Annexure-3A**.

3.2 GENERATION

3.2.1 The total generation of electrical energy during 2008-09 was as follows:

❖ KSEB's own generating stations	—	6482.92 MU
❖ Independent power producers (IPP)	—	1480.54 MU
❖ Captive power producers (CPP)	—	160.95 MU
TOTAL	—	9124.41 MU

The monthly generation of electricity from the above stations is shown in **Annexure - 3B**.

3.2.2 Various factors like the reduction in inflow, disaster at Sabarigiri power house and shut down of Panniar power house, the reduced availability of power to meet the peak demand, high cost of naphtha and LSHS during the beginning of the year, reduction in availability of CGS etc, there was huge gap in the availability against the requirement. The maximum demand for the year 2008-09 was 2765 MW and was recorded on 20.03.2009 and the highest consumption of 49.2932MU was also recorded on 20.03.2009. The internal generation of electricity during 2008-09 was 6482.92 MU excluding electricity generation from IPPs and CPPs. Net import of electricity was 7301.97 MU. The generation, import and consumption details during the year are shown in **Annexure - 3C**. There was sale of 15451.3463 MU of energy within the state during the year. The T & D loss during the year 2008-09 works out to 20.45 %.

3.3 POWER PROJECTS UNDER IMPLEMENTATION

3.3.1 HYDEL PROJECTS UNDER DIRECT EXECUTION BY KSEB

The following schemes are under direct execution by KSEB:

3.3.1.1 KUTTIADI ADDITIONAL EXTENSION SCHEME (2 x 50 MW –240.5 MU)

The scheme envisages utilisation of additional inflow into the existing Kuttiadi reservoir from Kuttiadi Augmentation scheme. The main components of the scheme are an intake



structure, horseshoe shaped tunnel, surge shaft, penstock and powerhouse. The work has been awarded to M/s BHEL- L&T consortium on turnkey basis at a quoted amount of Rs. 168.28 crores and they have started work in December 2003. The overall physical progress as on March 2009 was 85%. The project is expected to be completed by December 2009.

3.3.1.2 KUTTIADI TAIL RACE SCHEME (3 x 1.25 MW - 17.1 MU)

The scheme proposes to utilize for power generation the tailrace discharge of the Kuttiadi Hydro Electric Project and Kuttiadi Extension Scheme. The scheme was commissioned with two units on 09.11.2008 and third unit is proposed to be commissioned during September 2009.

3.3.1.3 KUTTIAR DIVERSION SCHEME (37 MU)

This Idukki augmentation scheme aims at diverting water from Kuttia river to Idukki reservoir by the construction of a weir and a diversion tunnel having a length of 2.696 kms. The tunnel driving works were completed during 9/2004. Temporary diversion of water started from 08.06.2007 and 96.89% of weir works was completed by March 2009. It is expected that the entire work will be completed by May 2009.

3.3.1.4 PALLIVASAL EXTENSION SCHEME (2X30 MW - 153.9 MU)

The Pallivasal Extension Scheme envisages the efficient utilization of available water at Ramaswamy Iyer Head works, Munnar by diverting water through a new water conductor system for power generation in the existing Pallivasal power house and the proposed powerhouse to be located near the existing one. The work was awarded to M/s ESSAR-DEC-CPPL Consortium on 30.09.2006 at an agreed PAC of Rs.268.01 crores. The work was started on 09.03.2007 and is progressing. An overall 9.96% of works has been completed.

3.3.1.5 THOTTIYAR HYDRO ELECTRIC PROJECT (40 MW – 99 MU)

The scheme envisages the construction of a diversion weir across the Thottiyar (Deviar) river, a tributary of Periyar in Idukki District. Construction of powerhouse having capacity of 40 MW (1 x 30 + 1 x 10) with water conducting system and a bridge across river Periyar to the proposed powerhouse. Agreement for the implementation of the scheme was executed on 22.12.2008 with M/s CPPL-CHONGQING consortium at an agreed amount of Rs.144 crores and work commenced on 16.01.2009. The earthwork excavation is in progress.

3.3.1.6 RANNI-PERUNAD SMALL HYDRO ELECTRIC PROJECT (4 MW-16.73 MU)

The Ranni-Perunad small hydel project is a run- off river scheme in river Kakkad of Pamba Basin that envisages the development of power by utilizing the tail race water from Maniyar Power House (operated by M/s Carborundum Universal Ltd.) Agreement for the implementation of the scheme was executed on 05.02.2009 with M/s KBL-KCEL-Aryacon



Consortium at an agreed amount of Rs.30.84 crore. The work commenced on 16.01.2009 and excavation work is in progress.

3.3.1.7 POOZHITHODE SHEP (4.8 MW- 10.97 MU)

Poozhithode SHEP envisages development of power by utilising water from Kadantharapuzha and Illanipuzha from free catchment of 26 sq.km. Tenders for the implementation of the scheme were invited during 2008 and the work was awarded to the consortium of M/s Paulose George & Co.- FMEPL at an agreed contract amount of Rs. 32.7866 crores. The work commenced on 04.03.2009 and excavation work is in progress.

3.3.1.8 ADYANPARA SHEP (3.5 MW – 9.01MU)

The scheme envisages power generation from Kanhirapuzha river, a tributary of Chaliar by constructing a diversion weir and water conductor system. The contract for the work was awarded to M/s KBL-Aryacon Consortium at an agreed amount of Rs.21.32 crores. The work was commenced on 10.10.2007. Only 5 % of the civil works were completed and there is no work at site from 1/2008 onwards.

3.3.2 RENOVATION, MODERNISATION & UPRATING OF HYDEL PROJECTS

3.3.2.1 SABARIGIRI HYDEL PROJECT

The contract for this project has been awarded to M/s. VA Tech Hydro, Austria, at a quoted PAC of Rs. 94.65 crores, after inviting international competitive bids. On renovation, the capacity of Units 1 to 5 will be up rated to 55 MW each from 50 MW and capacity of unit 6 will be uprated to 60 MW from 50 MW. Thus, the station capacity will increase from 300 MW to 335 MW. The contract became effective on 27.01.2003. The Unit No. 6 was recommissioned on 01.07.2005, Unit No.5 was recommissioned on 5.5.2006, Unit No. 4 was recommissioned on 11.2.2007 and Unit No.3. was recommissioned on 10.03.2008. The renovation work on Unit No.2 was completed and recommissioned on 07.02.2009 and the work of unit no. 1 is in progress and is nearing completion. Rehabilitation of Unit No. 3 after the accident on 16.05.2008 is in progress, while tender evaluation for rebuilding Unit no. 4 is in progress.

3.3.3 HYDEL PROJECTS BEING TAKEN UP FOR IMPLEMENTATION

There are 10 hydel projects having installed capacity of 217.55 MW being taken up for implementation. The details are shown in **Annexure-3D**.

3.3.4 HYDEL SCHEMES PROPOSED FOR IMPLEMENTATION

36 Hydro Electric Schemes having an installed capacity of 833.35 MW are proposed for implementation. The details of which are shown in **Annexure - 3E**.



3.3.5 WIND FARM PROJECT BEING TAKEN UP FOR IMPLEMENTATION

ANERT and KSEB will jointly establish about 3.75 MW - 5 MW project with average individual farm capacity of 2 MW each. The MoU was signed by KSEB and ANERT on 18.01.2006. Tender for the project was invited on 10.04.2008 and last date of submission of bid documents was extended up to 31.12.2008. No offer was received. It was decided by the Board to give back the project to ANERT for its execution.

3.4 OTHER WORKS

3.4.1 CIVIL DESIGN WING

3.4.1.1 The details of projects for which the Civil Design wing has designed and prepared drawings of component structures (including revisions), scrutinized and approved fabrication drawings submitted by the contractors, are shown below.

Sl. No	Name of Project	Energy (MU)	No. of drawings issued
1	Perumthenaruvi SHEP(6 MW)	25.77	17
2	Thottiar HEP	99	49
3	Mankulam HEP	82	60
4	Sengulam Tail Race	12.56	11

3.4.2 DPR WING

The Detailed Project Reports (DPR) of hydroelectric projects proposed for implementation are prepared by this wing. The Detailed Project Report of Anakkampoil (7.5 MW), Kandappanchal (3.75 MW), Upper Kallar (2 MW), Vakkalar (24 MW), Pambar (40 MW), Peechadu (3 MW), Pooyamkutty (210 MW), Poru falls (16 MW), Kakkayam SHES (4 MW), Chinnar (revision) 24MW and Karappuzha Dam Toe (0.5 MW) were completed and submitted to the Approval committee during 2008-09.

The Detailed Investigation Report (DIR) of Pathankayam SHE scheme(revised)(6 MW), Poovaramthode SHE scheme (revised) (2.5 MW) Kallamala SHES (8MW), Valanthodu SHES (8 MW), Attle II SHES (7MW), Koodam SHES(4.5 MW), Poringalkuthu left bank extension(48 MW), Kaithakolly diversion SHES (10 MW), Pazhassi Sagar SHES (20 MW), Thommankuthu SHES (4.5 MW) and Olikkal SHES (6MW) were submitted during the year.

3.4.3 RESEARCH ACTIVITIES UNDER THE CIVIL WING

3.4.3.1 The Research and Dam Safety Organisation at Pallom in Kottayam District monitors and carries out maintenance of all 45 dams/ weirs under KSEB and 12 Seismic stations. The safety and monitoring and behavioral studies of all the dams of KSEB including Idukki Arch



Dam is being carried out. Periodical Inspection report and Health Status report of dams are being monitored.

3.4.4 DAM SAFETY

3.4.4.1 Concreting of embedded parts of scour sluice gate of Kallarkutty, replacement of damaged intake gate of Sengulam dam, Cement washing of Kallar, Gavi, Meenar I and II dams, electrification of Gavi dam, renovation of control panel of Ponmudi, Sholayar and Idukki intake gate and overhauling the electrical system of intake gate and sluice gate of Kakkayam dam were carried out during the year 2008-09. In addition to the above, quality testing & mix design studies etc are being conducted at C.C.Lab, Idamalayar.

3.4.4.3 Seismic Studies

There are 12 seismic stations and 5 accelerographs for the collection and interpretation of the data for monitoring the seismic activity of the area. Data collection and analysis is being attended. Proposal for digitalizing the seismological observatories of KSE Board is prepared.

3.4.5 CIVIL CIRCLE, PALLOM

The Civil Circle, Pallom, in Kottayam District headed by a Deputy Chief Engineer (Civil) is having 3 units namely Central Mechanical Facility, Pallom, Mechanical Facility - I, Angamaly and Mechanical Facility-II, Kozhikode. These units are doing the steel fabrication works for the Generation, Transmission and Distribution Wing according to requirement.



4. TRANSMISSION PROFIT CENTRE

4.1 Transmission system is an essential link between power stations and load centres for bulk transfer of power and have a vital role in the management of power. KSEB has pioneered the modern concept of developing a large transmission network for transferring power from power stations to the local load centres.

4.2 The transmission sector of KSEB comprises of two zones namely North and South, and a System Operation wing each headed by a Chief Engineer. The North zone is headed by the Chief Engineer (Transmission - North) with its head quarters at Kozhikode and the South zone headed by the Chief Engineer (Transmission-South) with its head quarters at Thiruvananthapuram. The System Operations wing with headquarters at Kalamassery is responsible for the real time management of Kerala Power System and also the activities connected with communication and protection fields.

4.3 Power management in KSEB has been carried out efficiently during 2008-09. Under the ABT regime, utilization of opportunity is the key for most economical operation of the grid. The State Load Dispatch Centre (SLDC) did meticulous planning and prudent operations to attain excellent results. It includes real time load restrictions as and when necessary, generation scheduling, maintenance scheduling, scheduling the import of power from IPPs and CGS on long term as well as on daily basis, economic load dispatching, merit order dispatching, unit commitment policy, fixing up of merit order for under frequency tripping and remote switching from the sub LD Stations. Timely decisions and implementation of decisions resulted in a positive effect on the performance of the Board. Southern Region Power Committee meetings appreciated the performance of SLDC of Kerala.

4.4 Transmission system was able to achieve considerable improvement by commissioning a number of new substations, constructing transmission lines and by upgrading the existing substations. 2 Nos. of 110 kV substations were upgraded and 16 Nos. of 33 kV substations were commissioned. 19.078 circuit kms of 110 kV lines and 175.805 circuit kms of 33 kV lines were commissioned during 2008-09. Moreover, an additional transformer capacity of 406.2 MVA has been added during the above period to the existing transformer capacity of 13695.9 MVA at the beginning of the year. Annexure - 4A, 4B, 4C & 4D show the list of substations as on 31.03.2009, the details of new/upgraded substations, transmission lines commissioned and the capacity enhancement of substations respectively.

4.5 An overview of the transmission system as on 31.3.09 is given below.

Sl. No.	Capacity	No. of Substations	Line length in Circuit Kms	Reliability Index 2008-09
1	400 kV	2*	260**	
2	220 kV	15	2683.12	98.30
3	110 kV	116	3921.3	98.32
4	66 kV	84	2386.6	98.47
5	33 kV	88	1148.17	96.87
	Total	305	10139.19	

One 400 kV Substation at Pallipuram, Thiruvananthapuram is owned by PGCIL

**Owned by PGCIL



5. DISTRIBUTION PROFIT CENTRE

5.1 KSE Board distributes electricity in the state of Kerala except in the Thrissur Municipal Corporation and Munnar (Kannan Devan Hills). For operational conveniences the distribution wing is divided into three zones namely South, Central and North.

5.2 The South zone headed by Chief Engineer (Distribution South) with its headquarters at Thiruvananthapuram has 6 Electrical Circles, 19 Divisions (including TMR Divisions at Thirumala & Pallom), 58 Subdivisions, 166 Electrical Sections and a Regional Stores Division at Kundara.

5.3 The Central zone has 7 Electrical Circles, 25 Divisions (including TMR Division at Angamaly), 75 Subdivisions, 219 Electrical Sections and a Regional Stores Division at Aluva. The Central Zone is headed by Chief Engineer (Distribution Central) and has its headquarters at Ernakulam.

5.4 The North zone headed by Chief Engineer (Distribution North) with its headquarters at Kozhikode has 10 Electrical Circles, 25 Divisions (including TMR Division at Shornur), 78 Subdivisions, 256 Electrical Sections and a Regional Stores Division at Kallai.

ACHIEVEMENTS 2008-09	
Service Connections (nos.)	
a) Domestic	327892
b) Non-domestic	99180
c) Agriculture	11658
d) Industrial	6065
Total	444795
Lines (kms)	
a) 33 KV Line	
b) 22 KV Line	1.43
c) 11 KV Line	3018
d) LT Line	7636
Transformer (nos.)	4109
Street Lights (nos.)	52187

5.1 TROUBLE CALL MANAGEMENT SYSTEM (TCMS)

Trouble Call Management System (TCMS) has been set up in Thiruvananthapuram, Kollam, Kottayam, Kochi and Kozhikode as part of initiatives to offer better customer service by reducing interruption time to the minimum extent possible.

- ❖ Easily accessible dialup number 155333 is provided for registering complaints and round-the-clock service to the consumers.



- ❖ Round-the-clock service is ensured to the consumers.
- ❖ All complaints are registered and followed up. No complaints are left unattended.
- ❖ Average restoration time has been brought down to 30 minutes in urban areas and to about two hours in rural areas.

5.7 CONSUMER GRIEVANCE REDRESSAL FORUM (CGRF)

Complying with the provisions of Sub Section (5) of Section 42 of Electricity Act, 2003, the Board as per Board Order dated 16.03.2006 has constituted Consumer Grievance Redressal Forum (CGRF) for each region viz; southern, central and northern, with a chairperson of the rank of Deputy Chief Engineer (Ele.) with headquarters at Kottarakara, Ernakulam and Kozhikode, enabling the consumers to approach a Forum to redress their grievances. The CGRF discharges its function as provided in the Electricity Act, 2003 and Regulations issued by the Kerala State Electricity Regulatory Commission and orders issued by the distribution licensee in this regard and any amendments thereon.

ABSTRACT OF COMPLAINTS SETTLED BY CGRF DURING 2008-09

	Southern region	Central region	Northern region	TOTAL
Complaints received this year	125	120	124	369
Complaints settled	125	95	87	307
Complaints to be settled	23	29	38	90

Out of the 785 complaints received in the Office of the Member (Distribution), 471 complaints were settled.

5.8 ACCELERATED POWER DEVELOPMENT & REFORMS PROGRAMME (APDRP)

The Ministry of Power, Government of India, has introduced APDRP, a major initiative to bring about reforms in power distribution, for improving the commercial viability of the distribution sector. The funds provided under the programme are utilized for up gradation and modernization of the sub-transmission and distribution networks. The programme, which was initiated in February 2000, was implemented in Kerala from 2003 onwards. The scheme stands closed as on 31st March 2009.

The scheme has two components viz. investment component and incentive component. Under the investment component, Government of India provides 25% of the project cost as financial assistance by way of grant. The remaining 75% is to be arranged from REC/PFC or other financial institutions as counterpart funding.

Under the incentive component, incentive is given to the power utilities @ 50% of the actual net cash loss reduction for the FYs in the 10th plan period, with base year as 2000-01. For the reduction of revenue deficit in 2002-03 as compared to the base year 2001-02, the Board received an incentive of Rs. 64.94 crores from Government of India and for the year 2004-05, Rs. 82.99 crore was received. Further claims for the cash loss reduction achieved



by the Board during the FY 2005-06 and 2006-07 are pending with the Government of India for release.

5.8.1 Circle Scheme (3 Nos.)

In the first phase, the scheme has been sanctioned for the three Electrical circles, viz. Pathanamthitta, Manjeri and Kasaragode with a total revised outlay of Rs.143.10 crores .All the 3 schemes has been completed as on 31.03.2009 and completion reports were submitted to the Government of India during March 2009.

5.8.2 Town Schemes (46 nos)

As second phase, Town Scheme was sanctioned during 2002, covering the towns of Thiruvananthapuram, Kollam, Alappuzha, Cochin, Kozhikode, Thalassery and Kannur with a total revised outlay of Rs. 160.74 crores. Financial achievement to the extent of Rs. 151.73 crores has been met as on 31.03.2009. The schemes were short closed as on 31.3.2009 and the completion reports were submitted to the Government of India during March 2009.

In the third phase, 26 new town schemes have been sanctioned with a total outlay of Rs. 123.94 crores, for implementation during 2004–06. The schemes were completed for an amount of Rs. 123.76 crores as on 31.3.2009 and the completion reports were submitted to the Government of India during March 2009

As fourth phase, Town scheme covering 13 Towns with a total outlay of Rs. 57.18 crores was sanctioned during 2005. The schemes were foreclosed/short closed for an amount of Rs. 55.81 crores as on 31.3.2009 and the completion reports were submitted to the Government of India during March 2009.

5.8.3 City Scheme (3 Nos.)

Three special schemes for the cities of Thiruvananthapuram (Rs.122.39 crores), Kochi (Rs.115.13 crores) and Kozhikode (Rs.66.48 crores) cities with a total revised outlay of Rs.304 crores, have been sanctioned on 4.04.2005. The major works included construction of 11kv lines (UG Cables), installation of distribution transformers, construction of substations, Distribution Automation, SCADA, TCMS, GIS mapping etc. and were proposed to be completed by 2009.

Tenders were invited for the power part of the distribution works including Distribution Automation other than SCADA, GIS Mapping and other IT related works. The work for the power part of the Distribution Automation works in Thiruvananthapuram (Rs. 120.17 crore) and Kochi (Rs. 79.42 crore) cities were awarded to M/s Ircon International Ltd., New Delhi and in Kozhikode city (Rs. 56.79 crore), the work was awarded to M/s ABB Ltd., Bangalore during April 2007.

As per the direction from Ministry of Power, Government of India, the 3 city schemes were foreclosed/short closed as on 31.3.2009 for an amount of Rs. 82.19 crores. As the power part of distribution works has been awarded on turnkey basis the balance works



amounting to Rs. 174.19 crores is decided to be completed utilizing KSE Board's own fund.

5.8.4 Achievement

As on 31.03.2009, under the scheme, a total of 2397698 nos of energy meters have been replaced, 3597 Km of 11kV lines were newly constructed and 3855 numbers of 100KVA transformers were installed, re-conductoring of 981 kms of 11kV lines was completed, 267 Electrical Section Offices covering the scheme area have been computerized, 231 call centers were formed, 9 nos of 33 KV substations were constructed, 871 nos of feeder meters and 3497 nos. of border meters were installed. 15943 nos of distribution transformers were metered and renovation and modernization of transformer stations and substations were also carried out.

5.8.5 Funding Under APDRP for Kerala

Expenditure to the extent of Rs. 556.599 crores has been met as on 31.3.2009 for all the schemes together. Government of India to KSE Board through Government of Kerala released an amount of Rs. 139.135 crores and Rs.115.275 crores as grant and loan respectively. An amount of Rs. 159.12 crores was received from M/s REC Ltd. as counterpart fund. The utilization certificates for the amount released as loan as well as grant by Government of India has been submitted to the Government of India during March 2009.

5.9 RAJIV GANDHI GRAMEEN VIDYUTHIKARAN YOJANA (RGGVY)

Sanction has been received from REC for implementation of RGGVY in 7 districts viz. Kasaragode, Kannur, Kozhikode, Wayanad, Malappuram, Palakkad and Idukki with an outlay of Rs. 221.75 crore as a first package.

As per the terms and conditions of the sanction, the tripartite agreement for the implementation of the scheme was executed, between Government of Kerala, REC and KSE Board on 21.7.2005. As per the guidelines of the scheme, first instalment of 30% of the sanctioned amount would be released only if turnkey tenders are awarded.

As per the conditions of sanction, turnkey tenders were invited. But the firms quoted exorbitant rate except for Idukki district. As per direction from Govt. of India and REC, implementation of the scheme in the 6 northern districts of Kasaragode, Kannur, Kozhikode, Wayanad, Malappuram and Palakkad was entrusted with M/s NTPC Electric Supply Company Ltd (NESCL) and a quadripartite agreement has been executed among Government of Kerala, KSE Board, REC and NESCL on 15.02.2007.

For implementation of the scheme in Idukki district on turnkey basis, contract agreement has been executed between M/s ICSA (India) Ltd, Hyderabad who had quoted 19.45% above the estimate rate and KSEB on 23.03.2007. REC has released the first instalment of Rs. 5.12 crore (30% of Rs. 19.75 crore, sanctioned project cost) on 21.03.2007 and an amount of Rs. 0.8351 crore towards 50% of cost of 11135 Nos of BPL service connections. The total expenditure as on 31.03.2009 is Rs. 4.665 crore.



M/s CPRI, Bangalore has been entrusted with the quality-monitoring programme for implementation of the scheme in Idukki district.

REC has approved the revised cost estimate along with the revised DPR for implementation of the scheme in Idukki district with an outlay of Rs. 19.95 crore on 08.01.2009. Progress as on 31.03.2009 is as shown:

Sl. No	Name of item	Unit	Target as per revised DPR	Achievement as on 31.03.2009
1	Installation of 25 KVA transformer	No	308	110
2	Construction of 11 KV Line	KM	350.9	138.88
3	Construction of LT Single phase line	KM	258.35	64.44
4	Construction of LT three phase line	KM	62.14	13.83
5	Effecting BPL service connection	No	16097	10630

REC has intimated in principle approval for implementation of the scheme in Thiruvananthapuram, Kollam, Pathanamthitta, Kottayam, Alappuzha, Ernakulam and Thrissur districts with a total outlay of Rs. 99.25 crore.

As per direction from REC the DPR prepared by NESCL for implementation of the scheme in Palakkad and Wayanad district is forwarded to REC, Project office for approval. REC has intimated that the implementation of RGGVY in the remaining 13 districts will be considered in the 2nd phase of 11th plan.

5.10 Government of Kerala has sanctioned works amounting to Rs. 80 Crore under Tsunami Rehabilitation Programme (TRP) for the rectification as well as developments of the distribution network in the coastal areas of the State. The programme is being implemented through three projects as below.

5.10.1 Tsunami Emergency Assistance (Sector) Project- (TEAP).

Govt. of Kerala funds this project with financial assistance from ADB, meant for the rectification and developments of distribution network in the Tsunami worst affected coastal areas of three districts of Kollam, Alappuzha and Ernakulam. The project is to be implemented as per ADB guidelines.

Total allocation is 5.55 Million USD (which was Rs.24.00 crore at the time of approval and now it has become Rs.25 crore approximately due to increase in the exchange rate of US Dollar). All the works were completed with a total expenditure of Rs.19 crore (ADB reimbursable). Hence there is a balance of Rs.6 crore approximately. Government of Kerala approved the following new works to utilize this balance amount. The project period is up to 31.10.2009.

**Works proposed under balance fund available in TEAP**

Sl.No.	Name of work	Amount (Rs. in Lakhs)
1	Procurement of Cable fault locator & accessories	35.00
2	Various electrification works in Kollam District	96.11
3	Various electrification works in Alappuzha District	25.00
4	Various electrification works in Ernakulam District	241.14
5	Installing 10 MVA Transformers at Karunagappally Substation.	190.00
	Total	587.25

5.10.1 Tsunami Rehabilitation Programme (TRP)-General Package

Government of Kerala issued Administrative Sanction for Rs.48.78 crore for TRP general package. The project area are the coastal villages of the nine Districts of Thiruvananthapuram, Kollam, Alappuzha, Ernakulam, Thrissur, Malappuram, Kozhikode, Kannur & Kasaragode. The project period was up to 31.03.2009 and time extension has been granted from GoK up to 31.03.2010. The targeted works as per original estimate is for Rs 4810.86 lakhs and works to the amount of Rs.3288 lakhs were completed as on 31.03.09.

5.10.3 TRP -Special package

The AS and fund are sanctioned by local Panchayat (for Alappad, Arattupuzha, Andhakaranazhi and Edavanakkad) for Rs.619.12 lakhs and works for Rs.244.00 lakhs were completed as on 31.03.2009. All works to be completed before 31.03.2010.

5.11 CORPUS FUND

Estimates amounting to Rs. 9.86 crores were approved for the electrification of identified SC colonies and the works for 521 colonies amounting to Rs. 720.14 lakhs have been completed as on 31.03.2009.

5.12 REDUCTION OF T&D LOSS

5.12.1 KSEB achieved T&D loss reduction from 21.63 % to 20.45 % in 2008-09. To facilitate the loss reduction, fourteen numbers of 33kV substations and connected lines, 3018 kms of 11kV lines and 4109 numbers of distribution transformers were installed during 2008-09.

5.12.2 644256 numbers of faulty / sluggish / old meters have been replaced with electronic meters during 2008-09 to reduce commercial losses. Anti-Power Theft Wing has been strengthened and its activities have been intensified to detect cases of malpractice and pilferage of energy. 2782 cases of irregularity in the use of electricity were detected during 2008-09 and Rs. 29.58 crores were assessed and Rs. 18.97 crores were realised. All the above measures helped in bringing down the T & D loss to 20.45% in the year 2008-09.

5.13 LOCAL AREA DEVELOPMENT WORKS

MP & MLA LAD funds are mainly used by MPs and MLAs through District Collector to take up very emergent development works in their constituencies. The works included line extension, transformer installation, shifting of transformers and lines due to road widening/ realignment, installation of new streetlight etc. The physical and financial status of work is given below.

**MLA LAD work as on 31.03.2009**

Region	Total No. of Works	Completed Works	Balance Works to be Completed	Amount Remitted (Rs. in Lakhs)	Executed Amount (Rs.in Lakhs)	Balance Amount (Rs. in Lakhs)
SOUTH	1313	1280	33	931.58	872.83	58.74
CENTRAL	1139	1048	91	1036.17	929.01	107.16
NORTH	2172	2089	83	1292.67	1214.37	78.29
TOTAL	4624	4417	207	3260.43	3016.22	244.2

MP LAD work as on 31.03.2009

Region	Total No. of Works	Completed Works	Balance Works to be Completed	Amount Remitted (Rs. in Lakhs)	Executed Amount (Rs.in Lakhs)	Balance Amount (Rs. in Lakhs)
SOUTH	447	432	15	429.2	372.39	56.81
CENTRAL	300	293	7	492.42	484.21	8.21
NORTH	577	559	18	818.94	745.86	73.08
TOTAL	1324	1284	40	1740.58	1602.46	138.11

5.14 KERALA DEVELOPMENT SCHEME

Kerala Development Scheme works are distribution activities taken up by local bodies with their funds through KSEB. The work includes line extension, transformer installation, shifting of transformers and lines due to road widening/ realignment, installation of new streetlights etc. The status of work as on 31.03.2009 is given below.

Region	Total No. of Works	Completed Works	Balance Works to be Completed	Amount Remitted (Rs. in Lakhs)	Executed Amount (Rs.in Lakhs)	Balance Amount (Rs. in Lakhs)
SOUTH	15990	15408	582	7080.39	6726.3	354.08
CENTRAL	13242	12668	574	8186.71	7644.51	542.19
NORTH	18117	17372	745	15672.48	14699.31	973.17
TOTAL	47349	45448	1901	30939.59	29070.13	1869.45

5.15 OTHER EFFICIENCY INDICATORS

Particulars	Southern Zone	Central Zone	Northern Zone
Arrear collection during the year 2008-09(Rs. in lakhs)	6377.58	8248.75	8258.39
Revenue collection efficiency of LT consumers(excluding Govt. dept.)	94.77	94.47	94.01
Billing efficiency of LT consumers	99.93	100	99.77
Reliability Index of 11 kV feeders in Metros with population more than 8 lakhs and state capital	Thiruvananthapuram		99.95 %
	Kochi		98.86 %



6. MANAGEMENT INFORMATION SYSTEM

6.1 KSEB has a Management Information System (MIS), designed as a decision support system. MIS is structured for a systematic information flow that is accurate and time specific. The MIS Cell of KSEB is under the direct control of Chairman. Corporate level information is made accessible to the Chairman and Board Members. Director (in the grade of Deputy Chief Engineer) and State Public Information Officer heads the MIS Cell and is assisted by Joint Director (Computerization Unit) Thiruvananthapuram, Joint Director (MIS) Thiruvananthapuram, Joint Director, Regional MIS Unit, Kochi and Joint Director, Regional MIS Unit, Kozhikode. For Corporate Management Information Service and implementation of 'Right to Information Act, 2005', Director (MIS) is assisted by Joint Director (MIS) & Assistant State Public Information Officer at Vydyuthi Bhavanam, Thiruvananthapuram.

Based on the report on re-structuring of the MIS wing of KSEB and constitution of an IT cell, the Board vide B.O. (FM) No.128/2009/19.01.2009 has re-designated the Director (MIS) as Director (IT) and the Regional MIS units as Regional IT units and MIS Computerisation unit as IT Computerisation Unit.

6.2 Following are the main areas of work

- i. MIS
- ii. Computerization
- iii. Implementation of 'Right to Information Act, 2005'
- iv. Library
- v. Records Management

ACHIEVEMENTS DURING THE FINANCIAL YEAR 2008-09

6.3 COMPUTERISATION

6.3.1 MIS (Computerization Unit) has successfully completed the development of the new Data Entry Software and application software for LT billing computerization based on Open Source technology. This new billing software named ORUMA was officially launched by the Honorable Chief Minister on March 10th 2008 and was successfully implemented in all the Electrical Sections, after providing training to the employees. The work to migrate JYOTHI software to ORUMA has also been completed.

6.3.2 MIS Computerization Unit has provided support and maintenance to the existing computerized system viz, LT Billing, HT/EHT Billing, Payroll, KSEB Website, Intranet, E-mail connectivity, File and Mail management, Front office management and maintenance for computer hardware systems at Vydyuthi Bhavanam, Thiruvananthapuram. To speed up information flow, Internet Connectivity has been provided to all ARU's.

6.3.3 Functional Committees were constituted for computerisation of HT/EHT Billing, Supply chain Management, ARU and Corporate Accounting and HRM. MIS Kozhikode unit has developed Accounting Software and is implemented in 11 ARUs on pilot basis. MIS Kochi unit



has given technical support to Inventory Software in Regional Stores, Sub Regional Stores, TMR Divisions and Transmission Stores. The system requirement study for HT/EHT Billing as part of developing a comprehensive billing system for HT / EHT consumers and Supply Chain Management system in KSEB were completed.

6.3.4 Steps were initiated for the following computerisation projects under RADPRP scheme

- ❖ Establishment of wide area network for connecting all KSEB offices.
- ❖ Establishment of Data Centre.
- ❖ Energy Auditing.
- ❖ Management Information System.

The pilot project of connecting all Electrical Sections under Trivandrum City through KSWAN was initiated. Implemented hand held devices for meter reading of LT consumers in one Electrical Section on pilot basis. The IT Road map for 3 years was prepared and approved.

6.4 IMPLEMENTATION OF 'RIGHT TO INFORMATION ACT, 2005'

For the implementation of the 'Right to Information Act, 2005', the Board vide BO (FM) No. 93/2007 (MIS/RIA/06-07) dated 10.01.2007 has designated Public Information Officers, Assistant Public Information Officers and Appellate Authorities in almost all the offices to perform duties as per guidelines, circulars and directions issued by the Board and as per provisions contained in the Act. Accordingly, 1461 Public Information Officers and 635 Appellate Authorities have been designated in the various offices of the Board. In Corporate Office, Director (MIS) is designated as the State Public Information Officer and Chief Engineer (Corporate Planning) as the State Appellate Authority. Of the 4225 applications received during 2008-09, 4284 numbers were disposed of under Right to Information Act, 2005 by the various offices. An amount of Rs.28894/- has been collected towards application fee and Rs. 26,565/- towards other fee including document fee.

6.5 LIBRARY

The Corporate Office of KSE Board at Vidyuthi Bhavanam, Thiruvananthapuram has a library, which is a reference library for the various departments of the Board. The Library has a collection of 15140 books as on 31.03.2009 as against 15112 books on 31.03.2008. The Board vide BO (FB) No. 3185/2006 (MIS/LIB/ 2006-07) dated 21/12/2006 has decided to modernize the library including computerization.

6.6 RECORDS MANAGEMENT

In order to maintain records duly catalogued and indexed, computerization of records has been initiated. The Board has issued rules for preservation and disposal of records and setting up of record rooms in various offices of KSE Board vide circular No. MIS/Record keeping/06-07 dated 30.09.2006. Computerization for upkeep of pension book with file has been completed during the year and the work of setting up of the record room in the 4th floor has commenced.



7. CORPORATE PLANNING

Chief Engineer (Corporate Planning) controls and co-ordinates the various planning activities pertaining to generation, transmission, and distribution in the long term and short term projections and electrical research under KSEB. The Chief Engineer is also the nodal officer for monitoring works under central assistance and with assistance from REC.

7.1 PLANNING CELL

The major activities carried out in the planning cell during 2008-09 are furnished below:

7.1.1 The following plan documents were prepared.

- a. Annual Plan Proposals for the year 2009-10 through decentralized planning process.
- b. Planning Core Committee by incorporating the concepts of project management developed an IT enabled plan monitoring system “Easy Progress”. The new spreadsheet application and progress report format was implemented on pilot basis at selected Electrical divisions and later on extended to all Electrical divisions.
- c. The Planning Core Committee evolved the proposal of Model section and it was presented to the Board along with a similar proposal by the system change committee. Based on this, the organizational functions were discussed and finalized after discussions conducted by the Board with trade unions for the implementation of Model Sections.
- d. Board has authorized a committee to study the proposal submitted by the Chief Engineer (Corporate planning) for simplification of procedures related with the execution of works in the distribution sector in preparation of estimates, measuring in M. Book and preparation of bills, preparation of MASA etc. The committee has submitted an interim report.
- e. Revised the Delegation of Powers of all the officers in the Technical wing.
- f. Planning wing carries out the monthly planning and preparation of power position of Kerala system for the succeeding month. Forecasted the demand and peak load and formulated strategies for avoiding load shedding during the summer season of 2008 and succeeded in doing that. Evolved strategies for managing the power system safely during the accidents of Panniyar and Sabarigiri. Due to the reduction in central share, failure of monsoon and also due to accidents, implemented load restriction to different classes of consumer and half an hour cyclic load shedding on 11 kV feeders throughout the state with effect from 27-6-2008 and was lifted from 8-3-2009 to 25-3-2009 in view of the SSLC examinations.
- g. A committee was constituted for preparation of a realistic Long Term Transmission plan with year 2022 horizon and the committee had submitted the report during March 2009.
- h. Power system Statistics 2007-08 was published.



- i. "Baitarni West Coal Company Ltd." (BWCCCL), a joint venture of KSEB, Orissa Hydro Power Corporation (OHPC) and Gujarat Power Corporation Ltd. (GPCL), was incorporated on 22nd April, 2008 for developing and mining of the Baitarni West coal block allotted jointly to the three utilities. Rs. 10 crores is paid by KSEB to BWCCCL for meeting the initial expenses of the company, for which the company has issued equity shares to KSEB for an equivalent amount. A total of 1,00,000 shares of Rs.1,000/- face value is issued to KSEB out of which a counter bank guarantee for Rs. 25 crores is given to BWCCCL for submitting a bank guarantee of Rs.75 crores to the Ministry of Coal, Govt. of India. The company is in the process of preparation and obtaining approval of Mining Plan, getting other statutory clearances and conducting various studies related to developing the coal mine. A super thermal power project of 2400 MW to be implemented in Cheemeni Village of Kasargode district is proposed as the end use project for utilizing the KSEB share of coal from Baitarni. Government of Kerala has decided to implement the Cheemeni project in around 1000 hectares of government land available at Cheemeni. KSIDC has been appointed as the nodal agency for implementing the project. A special purpose vehicle (SPV) will be formed between KSIDC and KSEB with 50:50 participation for implementing the project. Board has already decided to transfer the KSEB share of 5 MT per annum of coal production from Baitarni to the Cheemeni project. The SPV is in the process of obtaining additional allocation of coal from Govt. of India.

7.1.2 The following reports were prepared for submitting to Government of Kerala.

- a. Monthly scheme-wise plan progress report (Physical & Financial).
- b. Subject Committee report.
- c. Budget Speech.
- d. Governor's Address.
- e. MP's Conference - Issues to be taken up with Government of India.
- f. Annual Conference of District Collector's and Heads of Departments.

7.1.3 Power Purchase Agreement for 10MW Co-generation plant by M/s MPS Steel Casting (P) Ltd and Ullunkal Small Hydro Electric Project developed by M/s. Energy Development Corporation Ltd were prepared and submitted to Government of Kerala and KSERC for approval. Executed PPA with various investors of the developers M/s Vestas Wind technology India (Pvt.) Ltd. & M/s Suzlon Energy Ltd, for purchasing of power from wind mills at Agali (23 units of 600 kW each totaling 13.8 MW) and Ramakkalmedu (18 units of 750 kW each totaling 13.5 MW). PPAs were executed with NLC for purchase of power from NLC-TPS-II Expansion Project on 10.11.2008. Prepared model PPA meant for wind power developers who intend to setup wind farms in private land. Negotiations are being carried out with NTPC for signing of supplementary PPA. Negotiation of the terms and conditions of long term PPAs with NTPC-Tamil Nadu Electric Company Ltd (NTECL) for purchase of power from Vallur Thermal Power Project (VTPP).



7.1.4 Agreement with PTC to register as a Member client for sale and purchase of power on IEX power exchange platform through PTC on 9.7.08.

7.1.5 Monitored power allocation from Ministry of Power and its follow up actions were carried out including that of special allocation of 180 MW from Thalcher STPS II.

7.1.6 Administration of power purchase agreement with Central Generating Stations and IPPs inside the State such as BSES and KPCL.

7.1.7 Correspondence was carried out with GoI, GoK and NTPC against the claim of Karnataka and Andhra Pradesh for share of power from RGCCPP, Kayamkulam.

7.1.8 Preparation of bidding documents such as RFQ, RFP and PPA for procurement of power through competitive bidding (Case I) in line with Govt. of India guidelines.

Negotiations with Philips Carbon Black Ltd. for purchase of excess power from expansion of captive co-generation plant at Kochi.

7.1.9 Initiated the restructuring activities of KSEB based on the Govt. of Kerala notification for corporatisation of the Board. Prepared the Memorandum and Articles of Association of the proposed company to replace the Board, by appointing a consultant. Processed the filing of application for registration of the company. Scrutinized the draft transfer scheme for re-vesting. Activities for the design of a logo, colour scheme, letterhead, internal office arrangements etc. of KSEB were awarded to M/s. Stark Communications Pvt. Ltd., Thiruvananthapuram and is progressing. The activities for developing performance indicators for the employees of KSEB has been started by appointing M/s. Centre for Management Development, Thiruvananthapuram as consultant.

7.1.10 Implemented the CFL distribution scheme as part of various demand side management initiatives. Invited tenders for the purchase of 10 lakh CFLs, and work is awarded to M/s. Starlite Lighting Ltd., Nashik. Coordinated the supply and delivery of CFLs to all Electrical Divisions.

7.1.11 Processing regulatory documents in respect of CERC, KSERC etc and policy issues in relation with SRPC etc so as to evolve views of KSEB on various issues.

7.2 RESEARCH ACTIVITIES UNDER THE ELECTRICAL WING

7.2.1 The R&D wing is the nodal centre for research activities of KSEB in the state and carries out the R&D studies in the power sector. This unit functions under the Chief Engineer (CP) and keeps liaison and interactions with other research centres like Central Power Research Institute, ANERT, Engineering Colleges and other premier R&D centres. The R&D wing is recognised by the Ministry of Science & Technology, Government of India as an in house R&D centre. It is also exempted of customs duty for import of equipments.

7.2.2 A Research and Innovation unit (R&I) has been set up to evaluate the technical developments, examine research proposals forwarded by employees, and appraise innovations in different areas and to recommend their applicability to installations in the Board. The R & I unit has been constituted with 14 members with the Chief Engineer (CP) as the Chairman of the Committee.



Around 10 proposals in the purview of the R&I unit during 2008-09 were discussed and two of them recommended for implementation, while one pilot project on AMR by M/s CDAC was sanctioned and the project is ongoing in Electrical Section, Thirumala.

7.2.3 R&D works undertaken during 2008-09.

- (a) Practical problems referred to this unit from the field offices were subjected to study in order to find out workable solutions.
- (b) This unit spearheaded other technical activities like Energy Auditing, Energy conservation etc.
- (c) Bachat Lamp Yojana (BLY)– KSEB has decided to implement the CFL-CDM Scheme in the entire State as a part of demand side management. Accordingly Expression of Interest (EOI) was invited and three firms M/s. Intersuez Advisors Pvt. Ltd, M/s. Phillips-CQC Consortium and M/s. Arctic Holdings, were selected to implement BLY in the three distribution regions, South, Central and North respectively. These firms are entrusted with the works of preparing PDD, obtain all the necessary approvals and to implement the CFL-CDM Scheme BLY in their respective region.
- (d) A project titled “Evaluation of efficacy and long-term performance of the locally available clays of Kerala as an encasement in earthing system in high soil resistivity areas” at an estimated cost of Rs.30 lakhs has been submitted to M/s Central Power Research Institute for approval for funding by the Central Government in the RSOP scheme. The project has been approved for funding by the Ministry of Power and is awaiting allocation of the fund through CPRI.

7.2.3 Demand Side Management Cell (DSM)

Demand Side Management Cell was constituted in KSEB in July 2002 as per the direction of Ministry of Power, Government of India. The cell conducts extensive awareness programmes with an aim of flattening the system load curve. Assistance of governmental and Non-governmental organisation (NGOs) was sought for conducting awareness programmes. Energy Conservation Day was observed on December 14th with wide publicity. Earth hour was observed on 28th March 2009 in liaison with Energy Management Centre, Energy conservation society, Centre for Earth Science Studies, World Wildlife Fund to voluntarily switch off lights for one hour from 8:30 PM to 9:30 PM during which nearly 200 MW of power saving was recorded.

7.2.4 A detailed grid map of Kerala Power system on a scaled map of Kerala as on 31.03.2008 has been updated and published.(**Annexure 7 A**)

7.3 PROJECT MONITORING CELL (PMC)

The Project Monitoring Cell gives technical assistance in matters pertaining to planning and monitoring of projects. The cell after evaluating the progress of project works furnishes monthly reports to Full Time Members and to the Full Board for review and onward submission



of report to Government. The Officers of the cell visited the project sites and a detailed note was submitted to the Board on bottlenecks at site and suggested the remedial measures.

7.4 ELECTRICAL DESIGN CELL

7.4.1 The design wing carries out the design of earthing system for EHV Substations from 220kV to 33kV, scrutinizes and approves the design of earthing system submitted by field officers, and redesigns earthing system for the upgradation, additions and alternations of existing substations. The yearly update of Single Line Diagram of Kerala Power System is also carried out by this wing.

7.4.2 The following designs on earthing systems were carried out during 2008-09

220kV Substation	-	1 No.
110kV Substation	-	4 No.
33kV Substation	-	12 No.

7.5 LOAD FLOW STUDY

This wing conducts load flow studies of Kerala grid with computerized simulation using Power System Analysis Frame work (PSAF) software developed by M/s Cyme International, Canada. The studies are conducted for:

- i) Assessing the loading of each substation and lines and voltage profile of each substation.
- ii) Identification of location for new grid stations with minimum loss in the system
- iii) Finding out optimum evacuation of power from new generating station
- iv) Determination of absorption point for central shares.
- v) Load flow evaluation for existing and proposed substations to prioritise plan proposals of voltage levels 220kV, 110kV, 66kV and 33kV for incorporation in Transmission Planning
- vi) Preparation of report on short circuit study of entire Kerala grid to determine the equipment rating and for design of station earthing and to control and coordinate protective devices.
- vii) Preparation of data, conducting studies and providing details to SRPC for assessing the capacitor requirement of Southern region.
- viii) Verification of reports on base case and projected compensated case and offer comments and discuss the matter in the system study sub committee meeting of SRPC.
- ix) Preparation of Agenda notes for SRPC, TCC and Standing Committee meeting of SRPC.

7.5.1 The major system studies carried out during 2008-09 are as follows.



7.5.1.1 Power Evacuation Studies:

- 1) Power Evacuation Scheme for Agali WEG-Phase II (Kavundikkal-6MW).
- 2) Power Evacuation Scheme for Vilangad, Passukadavu, Poozhithode Adyanpara, Iruttukanam and Chathankottunada SHEP.
- 3) M/s Aluva Plastic consortium for 1.8 MW wind farm at Kuruvikkanam, Idukki.
- 4) Neriamangalam Extension Scheme 25MW- Extension of Switchyard-Power evacuation by LILO arrangement on 110kV Sengulam –Pala feeder and alternate arrangement on 110kV Sengulam- Adimali feeder.
- 5) Power Evacuation from Kuttiyadi HEP.
- 6) 50 MW Coal Based Cogeneration Plant at HNL by M/s HNL.
- 7) Philips Carbon Blacks Ltd – 14 MW co-generation plant at Kochi.

7.5.1.2 Proposals for New Substations and Lines:

- 1) 400kV substation of PGCIL at Palakkad- 220 kV evacuation.
- 2) 220kV Substation at Pathanamthitta & CRL.
- 3) 110kV Substation at Arangottukara, Paruthippara/ Pulikkal, Pathirippala (Mannar), Gandhi Road, Peruva, Agasthiamoozhy & Thambalamanna.
- 4) 66kV Substation at Balaramapuram
- 5) 33kV Substation at Koruthode, Karamana, Vellanur, Perambra & Thiruvegappura.
- 6) 220kV D/C line from Vadakara to Nallalam
- 7) 110kV D/C line using M/C towers between North Parur- Cherai.

7.5.1.3 Substation up gradation /Capacity enhancement studies:

Capacity Enhancement of

- 1) 110/66kV Transformer at 220kV Substation Poovanthuruthu with 63 MVA.
- 2) 110/11kV Transformers at Paruthipara, Aluva, Chengalam, Kundara and Aroor with 20 MVA.
- 3) 110kV Substation Medical College, Melattur, Koppam, Chevayur, Kuttipuram, Ollur, Varkala, Agasthiamoozhy, Kanhangad, Mavelikkara, Kodakara, Kattakada and Aluva.
- 4) 66kV substation Vizhinjam, Nedumpoil, Njarakkal, Kothamangalam, Ettumannoor, Kuttikattoor, Karimanal.
- 5) Reconductoring of 66 kV Paruthippara- Neyyattinkara, Pallom- Pampady, Punnappa- Mavelikkara feeders.

7.5.1.4 Loss Analysis for availing REC loan.

Loss analysis of the following substations was conducted for availing REC loan.



- 1) 220kV Substation Kattakada, Malaparamba, and Vadakara.
- 2) 110 kV Substation Perinad and Pothanicad.
- 3) 66 kV Substation East Kallada.
- 4) Up gradation of Iritty substation to 110 kV.

7.5.1.5 Southern Region Power Committee (SRPC) related works and studies.

The following SRPC related studies were conducted during the year.

- 1) Collection and Analysis of System parameter data at 8Hrs on 11-3-2008 for the assessment of shunt capacitor requirement in the southern region for the year 2008-09 for SRPC.
- 2) Agenda Notes for the 7th, 8th and 9th SRPC meetings were prepared and submitted to SRPC members of KSEB.
- 3) Processing of Monthly Operating Review of substations and updating the database.
- 4) 220 kV substation, Edamon- Construction of two feeder bays, termination of Thirunelveli-Edamon line and transfer bus scheme at Edamon.
- 5) Behrampur substation – Sharing of transmission corridor from Talcher to Gazuwaka.

7.5.1.6 Long Term Transmission Plan 2008-2022.

A draft report on long term Transmission Plan up to 2022 is prepared.

7.6 PROJECTS WING

7.6.1 Projects wing mobilizes financial resources from various governmental and external funding agencies for various schemes / projects undertaken by KSEB. Main activities of the Project wing are:

- i) To avail loan assistance for distribution system improvement, transmission system improvement, small and medium generation projects and other O&M works.
- ii) To obtain loan/grant for programmes viz. Accelerated Power Development and Reforms Programme (APDRP), Tsunami Rehabilitation Programme (TRP), Tsunami Emergency Assistance Project (TEAP), Rajiv Gandhi Grameen Vidyutheekaran Yojana (RGGVY) etc. for distribution system improvement, transmission system improvement, distribution automation and village electrification.
- iii) To liaise with Central Government, State Government and other financial institutions for the purpose of availing funding as grant/loan.
- iv) To prepare agreements, Government guarantees, closure proposals, cost data for distribution works, etc.



8. TECHNICAL CONTRACTS AND MATERIALS

8.1 The Technical Contracts and Materials wing functions under the control of the Chief Engineer (Technical Contracts & Materials). Vendor rating and procurement of materials required for works in transmission, distribution and civil construction sectors are done in this wing. The requirement of materials for the Profit Centers is assessed and purchase orders are placed by the Chief Engineer (T, C&M), after observing all the formalities.

8.2 Transmission Stores Division, Angamaly is functioning under the Chief Engineer (T, C&M). The Stores Division receives materials from the suppliers as per the purchase orders issued by the Chief Engineer (T,C & M) and distributes to various circles as per the demand.

Purchase plan indicating requirements of all materials is prepared and placed before the Purchase Committee and Full Board for approval. The Purchase Committee consists of Chairman, Full Time Members, Chief Engineer (T, C&M), Deputy Chief Engineer (T, C&M) and Financial Advisor.

8.3 INVENTORY MONITORING AND STORE VERIFICATION

Inventory control is exercised by the three profit centers. The Chief Engineer (T, C&M) monitors and reviews the flow of materials.

Store verification unit is also functioning under the control of Chief Engineer (T, C&M). These units are doing periodical store verification.

8.4 QUALITY ASSURANCE

Quality control of materials received in the circle stores is the responsibility of the respective officers in charge of sub regional stores. This unit also wields supervisory control in ensuring the quality of materials procured through centralized procurement scheme. Statistical Quality Assurance Techniques are used and periodical testing is done. The unit also evolves technical specifications and standards for materials procurement.

8.5 MATERIAL PROCUREMENT AT HEAD QUARTERS

Procurement of materials and Equipments with Specification, required for the capital and maintenance works for the ensuing year were collected from the field offices before January 2008. After finalizing the specification and quantity, sanction to invite tenders was obtained from Purchase Committee. Tenders were invited with delivery schedule to match the requirement for the specific period. Purchase Orders were placed after obtaining sanction from Purchase Committee / Board with detailed delivery schedule to match the requirement in time. The major materials / equipment centrally purchased during 2008-09 are furnished in **Annexure – 8A.**



8.6 PROCUREMENT AT REGIONAL LEVEL

Procurement at the field level is based on just in time principle, so as to keep the inventories low and make available materials just in time. K.S.E.Board has decentralized purchase of 48 items and also delegated the duties and powers to the Chief Engineers (Distribution) vide BO(FB) No3115/2004 (CE/ TCM/ Genl/ 2004-05) dated 08-12-2004.

Details of Purchase made during 2008-09 at regional level

Distribution Materials	-	Rs. 88.21 crore
Transmission Materials	-	Rs. 37.20 crore
Generation Materials	-	Rs. 418.40 crore
Total	-	Rs. 543.81 crore

8.10 ABSTRACT OF PURCHASE MADE CENTRALLY DURING 2008-09

Rs. in crores.

1	Distribution Materials	318.00
2	Transmission Materials	88.06
3	Cement	3.35
4	Steel	37.45
Total		446.86

In all, purchase orders for Rs.990.67 crores were issued during the year 2008-09.

8.10 STATIONERY

An amount of Rs.11.34 crores was incurred during 2008-09 for printing and purchase of stationery items.

8.11 Scrap Disposal

During the above period, an amount of Rs.8.88 crores was realized through scrap disposal.



9. HUMAN RESOURCE MANAGEMENT

The Chief Engineer (HRM) heads and manages the various activities of the Human Resource of K.S.E. Board. As on 31st March 2009, the Board has 27089 employees.

9.1 The main functions and responsibilities of the HRM wing are to:

1. make appointment to all cadres up to and including Assistant Executive Engineer (Electrical) & (Civil) in the technical side and Assistant Accounts Officer in the ministerial side and to order transfer and posting of employees of and below the rank of Assistant Executive Engineer and Assistant Accounts Officer.
2. report vacancies to the Kerala Public Service Commission, sanction pensionary claims including arrears of pension to employees, sanctioning of higher grade to the employees / officers, sanctioning of all kinds of leave except study leave below the rank of Executive Engineer / Accounts Officer and equivalent categories as per rules.
3. process Income Tax statement, Life Certificate etc.
4. co-ordinate the training related activities under the HRD Cell, which has a vital role in improving the performance of the employees to match the changing business needs of the Board.
5. act as disciplinary authority of the officers of and below the rank of Assistant Executive Engineer and Assistant Accounts Officer.

The Deputy Chief Engineer HRM-I & Deputy Chief Engineer HRM-II and the Executive Engineer, HRD Cell at Vydyuthi Bhavanam, Thiruvananthapuram, assist the Chief Engineer (HRM). The Director, PETARC, Moolamattom and four Joint Directors at the Regional Power Training Centres are part of the HRD Cell. HRD activities are separately furnished in chapter 10.

9.2 ACHIEVEMENT DURING 2008-09

A summary of the achievements for the year are listed below:

9.2.1 Appointments

- ❖ 3377 candidates were appointed through Kerala Public Service Commission.
- ❖ 10 candidates were appointed under Sports Quota (Junior Assistant / Cashier/Office Attendant Grade II).
- ❖ 84 eligible candidates were selected through compassionate appointment.
- ❖ 222 numbers of paid Apprentices were selected for appointment.

9.2.2 Promotions

- ❖ 3435 promotions were given to various categories of employees / officers of and below the rank of Assistant Executive Engineer (Ele.) and Assistant Accounts Officer.



9.2.3 Reporting of Vacancies to the Kerala Public Service Commission

2308 vacancies of various categories from Electricity Worker to Assistant Engineer were reported to the Kerala Public Service Commission.

9.2.4 Pension Claims and allied matters

790 pension claims were authorized for payment and arrear calculation of nearly 1040 employees were completed

9.3 PERSONNEL DEPARTMENT

9.3.1 The Secretary, KSEB is also designated as the Chief Personnel Officer and the Personnel Department in Kerala State Electricity Board is headed by the Personnel Officer assisted by one Regional Personnel Officer, three Senior Superintendents and 14 supporting staff. This Department functions as an effective machinery for evolving policy decisions relating to Personnel Management, Industrial Relations and Labour Welfare. This wing attends to functions relating to collective bargaining, conciliations, arbitration and adjudication.

9.3.2 The Department is conducting review of representation of SC/ST employees in the Board every year. A review of the representation of SC/ST employees conducted as on 31.03.2009 has found that SC/ST employees are adequately represented with 15.14% in the regular service of the Board.

9.3.3 The revision of Pay and allied benefits in respect of all employees of the Board and revision of pensionary benefits of pensioners of the Board are done in this department. The issues relating to the engagement of petty contractors and security personnel are dealt with here and the guidelines regarding their engagements are issued from this wing.

9.3.4 The matters relating to the recognition of Trade Unions and Officer's Associations and the conduct of Referendum are being dealt with in this wing. As per the percentage of votes received in the Referendum conducted in the Board on 23.8.2003, two general Trade Unions, viz, KSEB Workers Association (CITU) and Kerala Electricity Worker's Federation (AITUC) had been granted recognition by the Board.

9.3.5 This Department has been conducting Workmen's Compensation cases directly and through counsels on behalf of the Board. Several cases of Industrial Disputes, Claim Petitions, Original Petitions and Gratuity cases were also contested.

9.3.6 Workmen's Compensation claims due to fatal and non-fatal accidents to petty contractors and their workmen amounting to Rs. 27,85,504/- and compensation claims of Board employees amounting to Rs.49,30,347/- respectively were settled during the year. An effective medical reimbursement facility to the accident victims in the Board has been introduced and an amount of Rs.7,42,873/- has been sanctioned for payment during the year. 219 electrical accidents to public and 49 electrocution cases of cattle were reported during the year in which compensation claims in respect of 18 public and 44 cattle were settled and an amount of



Rs.9, 18,000/- and Rs.1,99,000/- respectively have been sanctioned for payment during the year as per the Vydyuthi Suraksha Insurance Scheme for the general public and domestic cattle.

9.3.7 KSEB Employees Welfare Fund

9.3.7.1 During this year 3671 applications were received for admission to the fund. An amount of Rs.83,24,656/- was disbursed from the Employees Welfare Fund towards the retirement benefit to 674 employees during 2008-09. An amount of Rs.1,05,78,049/- has been disbursed on account of death benefit to 109 deceased employees and an amount of Rs.1,38,277/- has been disbursed as benefit to 2 employees who retired on invalid grounds. Also, an amount of Rs.1,13,939/- has been disbursed towards voluntary retirement benefit to 10 employees and Rs.40,085/- has been disbursed on account of resignation benefit to 11 employees.

KSEB Employees Welfare Fund has distributed Educational Cash Award to the children of Welfare Fund members, who have secured 90% and above marks in all subjects in SSLC/ CBSE/ICSE examination. An amount of Rs.1,68,056/- has been disbursed on account of educational cash awards to 56 students under this scheme for the year 2008-09.

9.4 PUBLIC RELATIONS

9.4.1 The Public Relations Officer heads the Public Relations Wing. The Public Relations Wing has a vital role in communicating the messages of KSEB among the public. The Public Relations Wing has a creative role in organizing awareness campaigns centering on Energy Conservation and Electrical Safety, etc.

There are three sections in the Public Relations Wing.

1. Mass Communication and Advertisement
2. Front Office and Liaison
3. Visual Publicity Unit.

9.4.2 The Public Relations Section co-ordinates publication of all statutory advertisements for different offices of KSEB. About 605 tender notices were published in Newspapers as per the norms in force in the Board. In order to make the public aware of the various achievements of KSEB, display advertisements were released through various print media. A few instances of which are— Commissioning of Neriamangalam Extension Scheme 25 MW, Dedication of Kuttiyadi Tail Race project to the nation, Complete electrification of Kuzhalmannam and Thalassery constituency, Conducting of Vydyuthi Adalath, Inauguration of construction of Ranni-Perunad SHEP, Thottiyar SHEP, Poozhithode SHEP and Inauguration of Thalassery town substation etc.

9.4.3 The Mass Media wing of the Public Relations department took part in exhibitions at various places to depict the message that KSEB wants to convey. The notable participations included the Thrissur Pooram Exhibition, the Uthralikkavu Pooram Exhibition, URJA-2008 at



Town Hall, Kochi and the Exhibition at Govt. Engineering College, Thrissur- Resonance 08. These exhibitions attracted a big mass thus enabling to reach out the message of KSEB among the public.

The message of energy conservation was conveyed through schools and colleges, Kudumbasree, residents associations etc. with the message "Switch off one bulb, avoid load shedding". Video films utilizing the star value of popular film stars were telecast to propagate the message of Energy Conservation. M/s Malayala Manorama in association with M/s Energy Management Centre had conducted an intensive Energy saving Campaign- SAVE (Serve as a Volunteer for Energy) for KSEB by inserting advertisements with celebrity endorsements and tips to save electricity by respected personalities. Pledge to save contest using mobile SMS and SAVE quiz contest were also held during March 2009.

9.4.4 'Reception Wing' forms the part of the Front Office. Reception wing ensures that the visitors are directed properly to the offices concerned and also keeps the entry and exit of all concerned in an accountable manner. Further the Reception wing imparts information on the various queries from the public who visit KSEB.

9.4.5 Public Relations Wing also does liaison work on behalf of the Board. This Wing co-ordinates the matters in receiving the visiting dignitaries, arranging transportation and accommodation to them, arranging press conference as and when required by the Hon'ble Minister of Electricity, conducting send off and welcome of top officials etc. The PR wing also undertakes production of publicity materials like short film, video, still photographs, features on print media, brochures, notices, posters etc and effectively utilizes them in various campaigns and exhibitions. The PR wing also gives messages clarifications, negations, etc. to the news items that appears against the interest of the board by issuing press releases. Last year about 86 press releases were issued.

9.5 SPORTS

9.5.1 Kerala State Electricity Board is the only Public Sector utility in the state maintaining Men & Women teams in Basketball and Volleyball, besides Football (Men), Tennis (Men) and Cycling (Men) team.

9.5.2 Volleyball (Women) won three major All India tournaments and also became the champion club in the State by winning the State inter club championship. Three players of KSEB Women team represented India for the Senior Asian Volleyball Championship held at Vietnam in September 2009. The Volleyball (Men), KSEB team won the AIESCB Volleyball tournament held at Solan, Himachal Pradesh. The team also won four All Kerala tournaments this year. Three players of KSEB Volleyball men team represented Kerala State for the Senior National Volleyball Championship during the year 2008-09.

9.5.3 Two players of the KSEB Football team represented Kerala in the Santhosh Trophy Senior National Football Championships. The team also won the All India Electricity Sports Control Board Football tournament held at Kurukshetra.

9.5.4 The KSEB Basketball (M) team won the All Kerala tournament held at Thiruvananthapuram



and the All India Electricity Sports Control Board Basketball tournament held at Trichy . One player of the KSEB Basketball (M) team represented Kerala State in the Senior National Championships. Basketball (Women) team won four All Kerala tournaments and four players represented Kerala State in the Senior National Championships and one player represented the Rest of India team for the All India Tournament held at Mumbai.

9.5.5 The KSEB Tennis team won the 35th All India Electricity Sports Control Board Tennis tournament held at Gujarat during January 2009 and the State Championship held at Trivandrum.

9.5.6 Sri.Vishnuchand, Cyclist of KSEB, won the Bronze medal in the National Cycling Championship held at Punjab and Gold medal in two events in the State Cycling Championship held at Thiruvananthapuram during 2008.

9.5.7 Ten persons were recruited under sports quota during 2008-09, three each in the Basketball (Men) and Volleyball (Women) team and two each in the Basketball (Women) and Volleyball (Men) team. The participation and position attained by the teams in various tournaments are listed in **Annexure 9 A.**



10. HUMAN RESOURCE DEVELOPMENT

Human Resources Development is a critical component of human resources management and it plays a dominant role in improving the performance of employees to match the changing business needs of the organization. Human Resources Development (HRD) Cell aims at training the staff and officers of KSE Board on several technical and non-technical subjects with a view to developing and enhancing the potential and competency of the staff in performing their duties efficiently and effectively and to meet the ever increasing requirements in the context of the changing organizational needs. Induction level training is also arranged for all the newly recruited employees of the Board.

10.1 The Human Resources Development wing has six institutions under its control to impart such training, namely Power Engineers' Training and Research Centre (PETARC) at Moolamattom, and Regional Power Training Institutes (RPTIs) at Thiruvananthapuram, Kottayam, Thrissur and Kozhikode and the Southern Regional Computer Training Centre (SRCTC) at Vidyuthibhavanam, Thiruvananthapuram

10.2 The PETARC at Moolamattom has gained national recognition as a Category I training centre approved by Central Electricity Authority (CEA) for training Electrical Engineers. Statutory training is conducted as per sanction accorded by the Central Electricity Authority (CEA). During 2008-09, 77 training programmes were conducted at PETARC and a total number of 1326 employees were trained. During 2008 - 09, the Regional Power Training Institutes at four centres conducted 519 training programmes on various subjects. A total number of 13367 employees could benefit from these training programmes. SRCTC conducted 28 training programmes on various subjects and a total number of 673 employees attended the training programme.

10.3 The Human Resources Development Cell also deposes Engineers and Officers to various renowned and reputed training institutions inside and outside Kerala. During the current year, 158 employees were deputed to various institutions inside the state and 89 employees were deputed to institutions outside the state to attend workshops /seminars/ training programmes on technical, managerial and financial subjects.

10.4 Many organizations and professional students have identified KSE Board for doing their project work programmes at graduate and postgraduate levels. 444 students from professional colleges have done their project work in various Boards installations and offices. 554 students have done their Industrial Training programme at various offices of KSEB. An amount of Rs.3,71,250/- has been collected on these accounts.

10.5 The abstract of training programmes conducted during the year is shown in **Annexure – 10 A**.



11. LAW WING

11.1 The Legal Wing of the Board is headed by the Legal Advisor & Disciplinary Enquiry Officer (LA & DEO), who is a District Judge from the Judiciary Department on deputation. The main function of the Wing is to conduct cases filed by and against the Board, before various Courts up to Supreme Court, other Judicial Fora and Tribunals. LA & DEO gives legal advice and clarification on legal matters to the Board on files of law section, important legal issues taken up by various field officers of KSEB and scrutinize reports of title deeds for acquisition of properties by the Board. Agreements executed between Board and the contractors, power purchase agreements and tender documents are vetted by the LA & DEO. A nominee of LA & DEO represents the LA & DEO in pre-qualification meetings.

11.2 As Disciplinary Enquiry Officer, the LA & DEO conducts enquiries into the allegations against Board's officers/workmen, in those cases, which are referred to him by the Chairman, KSEB, under Regulation 5 of the KSE Board Employees Disciplinary Proceedings (Conduct of enquiry) Regulations, 1974.

11.3 The Board has 82 Standing Counsels for handling the cases before the Lower Courts within the State. The Board is also having three Senior Standing Counsels and two Legal Liaison Officers for conducting cases before the Honourable High Court of Kerala and a Standing Counsel for handling cases before the Honourable Supreme Court of India. Special engagements of experts are also made in deserving cases. There is a Liaison Office functioning at Ernakulam, with Board's staff for monitoring the conduct of cases at High Court. A Resident Engineer is posted at New Delhi who will monitor the conduct of cases before the Honourable Supreme Court and other Judicial Tribunals at New Delhi.

11.4 Law section has taken part in 19 Lok Adalaths at various Courts (details shown in **Annexure -11 A**) including the Honourable High Court during the year 2008-09. 1376 cases were settled in the Adalaths and a sum of Rs.6,14,50,581/- was paid as additional compensation against a claim of Rs.61,94,55,342/ - ie., 9.92% of the claim amount.

11.5 A summary of KSE Board's cases as on 31.3.2009 at a glance is given in **Annexure 11-B**.



12. COMMERCIAL & TARIFF

The Commercial & Tariff wing is headed by the Chief Engineer (Commercial & Tariff) and functions under the control of Member (Finance). There are three major sub functional units viz., (a) Commercial Cell, (b) Tariff and Regulatory Affairs Cell & (c) HT and EHT - Billing. The Commercial Cell and Tariff Regulatory Affairs Cell (TRAC) are headed each by a Deputy Chief Engineer (Electrical) and HT/EHT billing and allied works are under Special Officer (Revenue).

12.1 THE DUTIES AND FUNCTIONS OF COMMERCIAL & TARIFF WING INCLUDE:

- ❖ Monitoring of billing, revenue collection accounting and allied works in respect of HT & EHT consumers, interstate sales and purchase of energy from Central Generating Stations as well as other Independent Power Producers, settlement of accounts of Unscheduled Interchange & Reactive Energy, daily system statistics etc.
- ❖ Preparation of tariff proposals & submission to Kerala State Electricity Regulatory Commission (KSERC) and other related works.
- ❖ All works related to KSERC and tariff determination.
- ❖ Formulation of draft Terms & Conditions of Supply in line with Supply Code 2005 published by Kerala State Electricity Regulatory Commission.
- ❖ Finalization of rates and estimates for Transmission & Distribution works.
- ❖ Processing proposals with regard to power cut, load shedding, Industrial Power Liaison Committee, concessions to industries.
- ❖ Processing complaints relating to tariff and allied matters.
- ❖ Compilation of arrears of electricity charge in respect of free supply of electricity to agricultural consumers and subsidy to industries and tourism, Government Departments, Public Sector Undertakings & Local Bodies.
- ❖ Disposal of petitions based on judgments in Writ Petitions relating to HT & EHT consumers.
- ❖ Interpretation and issuance of clarifications wherever necessary in respect of Electricity (Act), Electricity rules, Terms and conditions of supply etc.
- ❖ Convening meetings of Code Review Panel for proposing amendments in Electricity Supply Code 2005 and Terms and conditions of Supply 2005.

12.2 Activities carried out during 2008-09 under this cell are:

12.2.1 COMMERCIAL CELL

- ❑ Verification of monthly bills and supplementary claims for the power purchase and power sales of various generating units, viz., NTPC,NLC and NPC Stations, BSES,



KPCL and bills of transmission utility.

- ❑ Verification of weekly bills and final monthly adjustment bills for the power sold to TNEB, M/s NVVN and PTC. Settlement of receivable and payable accounts of UI & RE charges, inter state wheeling charges.
- ❑ Tendering for the power purchase, tender evaluation, obtaining approval of Board, issuing Lol as per requirement and verification of all bills for short term purchase through traders.
- ❑ Preparation of monthly power purchase statement.
- ❑ Collection of daily System Statistics from LD Station, Kalamassery and distribution to other offices as well as the Government.
- ❑ Preparation of quarterly arrear statements (relating to Government Departments, Public Sector Undertakings, Local Bodies & Private Sector consumers etc).
- ❑ Disposed appeal petitions based on judgments. Statement of facts was prepared on cases with issues like MD rebate, dispute on connected load, pre-92 tariff & pre-82 tariff concession etc.
- ❑ Extended the benefit of waiver of Demand / Fixed Charges in respect of closed industrial units of plantation opened before 31.12.2008.
- ❑ Conducted meetings of Code Review Panel to review the Electricity Supply Code 2005, formulated draft rules and regulations to be followed by the panel, discussed the amendments required in the Supply Code in the Code Review Panel and recommendations arrived were forwarded to the KSERC.

12.3 TARIFF & REGULATORY AFFAIRS CELL (TRAC)

12.3.1 Activities carried out under this Cell during 2008-09 are as follows;

- Filed petition on imposing power restriction on HT, EHT and LT consumers during 2008-09 before KSERC and its follow up.
- Filed petition on imposing Thermal Surcharge. Billing procedure implemented, follow up of thermal surcharge, power restriction, billing of excess consumption over restriction at the rate approved by KSERC on monthly basis.
- Filed Truing Up Petition for 2005-06.
- Filed appeal petition before Appellate Tribunal for Electricity (APTEL) against orders of KSERC on the Truing Up petition for the years 2003-04 & 2004-05. Filed appeal petition before Appellate Tribunal for Electricity (APTEL) against orders of KSERC on ARR&ERC for 2008-09.
- Filed ARR& ERC for 2009-10 on 29.12.2008 before KSERC. Filed review petition before KSERC against order on ARR&ERC for 2008-09. Activities relating to approval of ARR & ERC for 2009-10.



- Filed counter affidavit before the Honorable Appellate Tribunal for Electricity against the appeal of M/s Binani Zinc on the revised tariff w.e.f 01.12.2007.
- Filed objections and comments on various draft Regulations issued by KSERC.
 - ❖ Power procurement from co-generation plants by Distribution Licensee Regulation 2008.
 - ❖ Draft notification on determination of cross-subsidy surcharge under Intra State open access.
 - ❖ Draft notification on levy and collection of fee and charges by SLDC.
- Filing of replies before CERC on petitions filed by CTU, CGS, NLC & IPPs .
- Filed comments before CERC on following draft regulations/ discussion paper.
 - ❖ Promotion of co-generation and generation of electricity from renewable source of Energy.
 - ❖ CERC notification on “Terms and Conditions of tariff” for the year 2009-2010 to 2013-2014.
- Filing of replies before KSERC on petitions filed by Licensees/ Consumers/ associations etc. Getting approval from KSERC on sale of surplus power and purchase of energy through trading; approval of Power Purchase agreement (PPA) with generation. Correspondence with KSERC on Supply Code & Terms and Conditions of Supply and its implementation. Compiled and furnished the details of collection of Thermal surcharge, excess over consumption charges etc. to KSERC. Presented petitions and arguments of KSEB before KSERC and public during hearings conducted by KSERC.
- Issues related to Consumer Grievances Redressal Forum (CGRF) and Ombudsman.

12.4 HT&EHT Billing Branch

12.4.1 HT & EHT billing branch is headed by Special Officer (Revenue). The number of consumers as on 31.03.2009 is as detailed below.

H.T consumers	2525
E.H.T	45
Grid	31
Total	2601

Demand during 08-09 - Rs. 16,57,89,98,673/-

Collection during 08-09 - Rs. 17,28,53,29,963/-



12.4.2 Activities carried out under this wing are :

- ❖ Monthly billing of H.T/E.H.T consumers, licensees, captive power plants interstate wheeling charges and reactive energy charges are done in this office.
- ❖ Allied works such as collection of Cash Deposit/ Additional Cash Deposit and its interest adjustments, issuance of DC/RC Notice to defaulters, follow up of Revenue Recovery, cases pending before various courts, Lok Ayuktha, CDRF, CGRF and other Forums etc, One Time Settlement, MD Waiver, instalments and allied issues.

12.3 OTHER ACTIVITIES

12.5.1 Details of Tariff of various categories of consumers and category wise subsidy provided during 2008-09 is as follows.

Government had announced free supply of electricity to all paddy cultivators with effect from 01.08.1995. This subsidy was extended to other cultivators holding land up to 2 hectares with effect from 01.04.1997. The payment towards the free supply of electricity would be reimbursed by the Agricultural Department and the subsidy is being continued in the financial year 2008-09 also. Latest Tariff for various categories is enclosed as **Annexure - 12A**.

12.5.2 Details of arrear collected, action taken to realizing long pending arrears, details of One Time Settlement made etc during 2008-09 are as follows.

Rupees in Crores

Arrear as on 31.03.2009	- 1178.61
Increase in arrear during the last year	- 33.70
Old arrear collected during last year	- 24.07
Arrears remitted by Kerala Water Authority	- 250.00

Disconnection / Revenue Recovery / One Time Settlement and waiver of MD Charges during closure period as Government policy and instalment facility are resorted for collecting arrears. An amount of Rs. 5,22,02,235/- had been collected from 14 consumers under One Time Settlement during the year.

12.5.3 Policy decision taken during 2008-09 in commercial activities.

Board had ordered the following :

- ❖ Waiver of fixed charge / minimum demand charges for electricity for the period of closure in respect of closed industrial units and plantations, reopening on or before 31.12.2008, subject to certain conditions.
- ❖ Revised the interest rate for belated payment as 12% interest up to 30 days and 18% above 30 days for the entire period.



- ❖ Power restriction to the tune of 25% has been imposed on all HT/ EHT consumers with effect from 25.07.2008
- ❖ Due to fuel price variation in liquid fuel stations and increase in UI rates thermal surcharge has been imposed to all consumers with effect from 20.08.2009 and the same was withdrawn from 01.03.2009.
- ❖ Power restriction to the tune of 20% has been imposed on all LT consumers (except LT-V and LT-VI D) with effect from 15.10.2008.

12.5.4 Expense/benefit made during trading of electricity

The total unit of energy sold during the year 2008-09 is 42,88,84,000 Units. Total amount billed for the above energy comes to Rs. 4,31,43,85,091/-. The split up details of energy sold by K.S.E. Board during 2008-09 and the amount billed are given in **Annexure - 12B**.

The task of inviting tenders for sale/ purchase of power and processing the offers was entrusted with the Chief Engineer (Commercial & Tariff) vide B.O.(FM) No. 2614/2008(CP/BD/148/BSES/08) dated 25.10.2008. Tenders for the purchase and sale of power on firm basis as and when available are being invited as per the recommendation of the Chief Engineer (Transmission) System Operation. The process of tender evaluation, obtaining the approval of the Board and issuing Lol as per requirement and verification of all bills for short term purchase (including day ahead purchase through traders based on details of energy scheduled by CE System Operation and proving the admissibility to the Office of the Financial Adviser are being carried out.

In addition to the awarding sale, weekly and monthly bills are raised from this office. 218.526 MU (at sellers periphery) of energy was purchased through traders and an amount of Rs.148.260 crores was admitted on account of short term purchase through traders during the financial year of 2008-09 in addition to the open access charges and LD charge.

Board has authorized Chief Engineer (Transmission) System Operation to take trading and self clearing membership in PXIL (Power Exchange India Limited) vide B.O.(FB)No.840/2009(Comml/PXIL/2008-09) dated 25.03.2009 by remitting the required fees.

During the financial year admissibility of the monthly bills of wind IPPs were provided for the 35.23 million units of energy pumped to KSEB grid by the 18 number of wind generators at Ramakkalmedu and 23 numbers at Agali at the rate of Rs.3.14 which was approved by the KSERC and an amount of Rs.11.03 crore was admitted for the year.



13. FOREST & ENVIRONMENT MANAGEMENT UNIT

The forest and environmental issues are of major concern in the development and implementation of hydel projects during the last three decades. This unit functioning under the Chief Engineer (Corporate Planning) mainly deals with activities related to forest and environmental clearances, inter-state water disputes, Clean Development Mechanism (CDM) financial assistance from MNRE for the implementation of hydroelectric projects etc. This unit also liaisons with various departments in the State and Central governments and co-ordinate activities within the Board with respect to obtaining clearances, developing CDM projects and obtaining financial support from MNRE.

13.1 FUNCTIONS AND ACTIVITIES

The functions and activities of the unit are to:

- ❖ provide input regarding forest, environmental, ecological and CDM aspects to all project reports prepared by KSE Board.
- ❖ obtain required sanction from State Forest Department for survey and investigation works of new hydel projects, preparation, submission and follow up of proposals for diversion of forestland to State Forest Department and Ministry of Environment and Forests, Government of India.
- ❖ conduct Environment Impact Assessment studies, facilitate conduct of Environmental Public hearing, preparation, submission and follow up of proposals for environmental clearance with Government of Kerala / Government of India.
- ❖ arrange and follow up of works in connection with the conditions stipulated in the environment/forest clearances, such as Rehabilitation & Resettlement, Environmental Protective works, pre-construction / post construction environmental studies, etc.
- ❖ deal with inter state issues such as Mullaperiyar, Cauvery Water Dispute, Pandiar - Punnapuzha and Pamba - Achenkovil - Vaippar link projects.
- ❖ Conduct various activities in connection with development of hydroelectric projects such as CDM projects.
- ❖ Preparation, submission and follow up of proposals with MNRE for availing financial assistance for new projects.

13.2 ACHIEVEMENTS DURING 2008-09

The achievements during 2008-09 are as follows:

- ❖ Obtained stage-2 forest clearance for Mankulam Hydro Electric Project (40 MW) and stage-1 forest clearance for Perumthenaruvi Small Hydro Electric Project (6MW)
- ❖ Obtained stage-1 environmental clearance for Achenkovil HEP (30 MW).
- ❖ Obtained required sanctions from Govt. of Kerala (SC/ST department) for the implementation of Rehabilitation & Resettlement (R&R) package for tribals affected by the implementation of Mankulam HEP (40 MW).



- ❖ High-level committee convened for facilitating early transfer of forest land for Thottiyar hydroelectric project, Sengulam Augmentation scheme, Anakkayam hydroelectric scheme and for sorting out various issues with the State Forest Department.
- ❖ Commenced comprehensive EIA study for Achenkovil Hydro Electric Project
- ❖ Action initiated for obtaining requisite clearances from Ministry of Environment & Forests for Pambar hydroelectric scheme (40MW), Vakkallar hydroelectric scheme (24MW) and Pooyankutty hydroelectric scheme (210MW).
- ❖ Action taken for defending the PIL filed against the implementation of Athirappilly HEP before the Honorable High court of Kerala and that of Pamba-Achenkovil-Vaippar link proposal before the Honorable Supreme Court.
- ❖ Engaged consultant for three pilot projects viz. Chathankottunda II SHEP, Vilangad SHEP and Kakkayam SHEP for development as CDM projects.
- ❖ Action initiated for development of Anakkayam SHEP as CDM project.
- ❖ Proposals for three projects for capital subsidy have been submitted to MNRE and facilitated obtaining of loan assistance from PFC for Mankulam HEP, Pallivasal Extension scheme, Vilangad SHEP and Sengulam Tailrace HEP.
- ❖ Modification of DPRs undertaken with respect to the cost aspects for Chathankottunada & Vilangad SHEPs and incorporating CDM aspects and submitted to the Board for obtaining Administrative Sanction from Government.



14. FINANCE AND ACCOUNTS

The Finance & Accounts wing, headed by the Financial Adviser, undertakes Financial Management in terms of long term and short-term resource mobilisation, working capital management, investment management, financial planning, budgeting and budgetary control, management of cash flows, corporate banking and treasury and foreign exchange management. The Financial Adviser being Advisor to the Board also gives advice on finance and contractual matters to the Board. This office prepares the Accounts of the Board as a whole in addition to the Budget of the Board. Budget for 2009-10 is given in Chapter 15.

Salient features of Annual Statement of Accounts for 2008-09 (Provisional) are given below.

14.1 REVENUE RECEIPTS AND EXPENDITURE

The total income for the year 2008-09 was Rs. 6098.99 crores and the total expenditure was Rs. 5881.57 crores, leaving a surplus of Rs. 217.42 crores. The surplus of 14% on equity has been arrived after taking into account revenue gap/ regulatory asset of Rs. 749.17 crores. The details are shown in **Annexure - 14A**.

14.2 The Balance Sheet as On 31st March 2008 is shown as **Annexure 14B**.

14.3 BORROWINGS DURING 2008-09

The Board had borrowed Rs.94.49 crores during 2008-09 from various financial institutions as against Rs.3.08 crores during 2007-08. The comparison of borrowings made during the last two years is given below:

Rs. in lakhs

Borrowings	2007-08	2008-09
Institutional Creditors	307.88	9449.19
Government of Kerala	0.00	0
TOTAL	307.88	9449.19

14.4 TOTAL LONG TERM LOAN OUTSTANDING AS ON 31.03.2009.

The Board had an outstanding long term loan of Rs. 1856.72 crores including payments due on capital liabilities at the end of March 2008. This has been reduced to Rs.1100.36 crores by 31.03.2009 by restriction of fresh borrowings and repayment of debts in time.

Rs. in lakhs

		As on 31.3.2008	As on 31.3.2009
A	Institutional creditors	185672.30	110036.56
B	Government loan (including payments due on capital liabilities)@	0.00	0.00
	TOTAL	185672.30	110036.56

@ The outstanding loans with Govt. of Kerala as on 31.3.2006 has been proposed to be netted off against subsidy receivable to the Board from Government.



15. BUDGET 2009– 2010

The Budget Estimate is prepared based on the Aggregate Revenue Requirement submitted by the Board before the State Electricity Regulatory Commission. As such the figures of the Budget Estimate are the same as that appear in the ARR.

15.1 REVENUE RECEIPTS

The total revenue receipt for the year 2009 - 2010 is estimated at Rs. 6113.22 crores. The split up details are as follows:

Sl. No.	Item	Estimated revenue receipts
1	Revenue from Sale of Power	4522.93
2	Non Tariff Income	491.01
3	Additional Revenue mobilization / "Revenue from subsidies & Grants".	1099.28
	Total Estimated Receipts	6113.22

15.2 REVENUE EXPENDITURE

The estimated revenue expenditure for the year 2009-10 is Rs.5895.80 crores and the split up details are given below. The net surplus expected for the year is estimated to be Rs.217.42crores.

Sl. No	Revenue Expenditure	Budget Estimate 2009-10
a	Purchase of Power	3024.61
b	Generation of Power	310.85
c	Repairs and Maintenance	152.74
d	Employee cost	1069.96
e	Admn. & General expenses	155.21
f	Depreciation	489.41
g	Prior period expenses	27.30
h	Other expenses including Finance	404.10
i	Interest	345.31
j	Gross Expenditure	5979.49
k	Less expenses capitalised	55.82
l	Less interest capitalised	27.87
	Net Expenditure	5895.80

15.3 CAPITAL EXPENDITURE

The total capital outlay for the year 2009 – 2010 is estimated as Rs. 1377.10 crore. The break up is furnished below.

a) Generation	Rs. 403.33 crores
b) Transmission	Rs. 366.73 crores
c) Distribution	Rs. 600.64 crores
d) Others	Rs. 6.4 crores
Total	Rs. 1377.10 crores

The scheme - wise split up details of the total capital outlay of Rs. 1377.10 crores is given in **Annexure - 15A**.



16. INTERNAL AUDIT

The Chief Internal Auditor, who is in charge of the internal audit functions of the Board, heads the Internal Audit Wing. This office also acts as an interface between the Board and the Accountant General of Kerala. The activities and achievements during 2008-09 of various sections functioning under the internal audit wing are detailed below:

16.1 REGIONAL AUDIT OFFICES

Regional Audit Offices are under the administrative control of the Chief Internal Auditor. There are 23 Regional Audit Offices, one in each Electrical Distribution Circle under the Internal Audit Wing. Regional Audit Offices conduct audit of Revenue and Expenditure in the Distribution Wing. Establishment & expenditure audit are also conducted by RAO's in Electrical Divisions & Electrical Circles. On the revenue side, RAO's audit focus on short-assessment of energy charges, service connection charges, OYEC charges, C.D, timely disconnection of defaulted consumers, back assessment of meter faulty consumers, cash collection and remittance, maintenance of records/registers etc and audit of Materials At Site Account (MASA), work bills, imprest account etc. in the expenditure side.

Internal audit in ARUs/field offices look into the adequacy of internal control systems, proper maintenance of records, compliance of financial rules, code and accepted procedures.

During 2008-09, the RAO's have conducted audit in 400 units. Total audit assessment made during the year is Rs.31,53,03,503/-. The total realised amount comes to Rs.18,67,23,801/-. During the year 2008-09 Regional Audit Officers conducted expenditure audit in 23 ARUs.

Further, surprise inspection of consumer's premises has been conducted in 3223 premises and irregularities detected in 2020 premises. Total unauthorised additional connected load detected is 7942 KW. An amount of Rs.8,32,03,047/- has been assessed as penalty in these cases out of which Rs.5,98,22,434/- has been realised.

16.2 PAY FIXATION SECTION

This section deals with audit and approval of pay fixation of officers and staff in all offices under the Board. During the year 2008-09, 11630 Service Books were examined and approved, out of 14773 service books received from various offices. An amount of Rs.26,88,946/- was recovered as excess drawal of pay and allowances. Field audit party of this section conducted audit in 44 ARUs during 2008-09.

16.3 ESTABLISHMENT AUDIT DEPARTMENT (EAD)

This section pre-audits establishment bills relating to all workmen in Vidyuthi Bhavanam, Thiruvananthapuram, and also conducts post-audit of establishment bills of all other Account Rendering Units. During 2008-09, 1826 numbers of accounts were post audited, out of 2314



monthly accounts received from the 136 ARUs. Objections totaling to a value of Rs. 4,55,567 were detected during the pre-audit / post audit and Rs.1,15,161/- has been realised.

16.4 GAZETTED OFFICERS AUDIT DEPARTMENT (GAD)

This section pre-audits establishment bills relating to all officers in Vydyuthi Bhavanam, Thiruvananthapuram. The section also conducts post audit of establishment claims of officers of all other Account Rendering Units and Calculation of interest on House Loans, Conveyance Loans, Marriage advances and the closure works of the same. Post audit on the accounts of all ARUs for the year 2008-09 has been completed. An amount of Rs.9,50,501 has been recovered/adjusted out of Rs.11,88,325 detected as excess drawn.

16.5 WORK AUDIT DEPARTMENT (WAD)

Work Audit Department (WAD) conducts pre-audit of bills other than establishment bills originating in the offices located in Vydyuthi Bhavanam, post audit of monthly accounts from all units and furnish clarification and remarks to the Board and field offices regarding works related matters. During 2008-09, out of 1917 monthly accounts received, 875 were audited and the monetary value of objection raised is Rs. 47,88,030/-. Out of this an amount of Rs.25,69,696/- has been settled/rectified.

16.6 PENSION AUDIT SECTION

The main function of this section is to check the genuineness of the claims as well as the irregularity in the payment of the pension claims of all the 59 pension payment units. During 2008-09, an amount of Rs.15,78,259/- was objected due to various reasons. Out of this an amount of Rs.6,30,099/- has been realized during 2008-09.

16.7 GENERAL PROVIDENT FUND SECTION

The GPF section is dealing with the maintenance of PF accounts of all the KSE Board Employees. During 2008-09, 1602 subscribers were newly admitted and 679 numbers of GPF closures were settled.

16.8 AUDIT REPORT INTERFACE SECTION

This section prepares Board's remarks / action taken reports on statement of facts, draft paras and audit paras issued by the Accountant General. Reporting of action taken on the recommendation of Public Accounts Committee and Committee on Public Undertakings are also done. During 2008-09 this section has furnished replies on 13 draft paras, 1 draft review, 14 audit paras and 31 recommendations of Committee on Public Undertakings. 13 Audit Committee Meetings were conducted to settle the paras contained in the Inspection Reports of the AG, during which 953 paras were discussed and 748 paras were settled.



16.9 RESIDENT CONCURRENT AUDIT (RCA)

The main function of R.C.A. is to pre-check work bills in connection with civil works and purchases under Civil Circles/Divisions. The RCA is also conducting local audit of civil works and post audit of monthly accounts of ARUs and allied works of Civil Wing of the KSE Board. It also conducts reviews of HE projects of selected cases.

660 C.C bills were pre-checked during the year 2008-09 and eleven numbers of local audit inspections and post audit of 119 numbers of monthly accounts were also completed.

16.10 PERMANENT AUDIT WING (HT & EHT REVENUE)

HT /EHT consumers being a high revenue segment, a permanent Audit Wing is set up to watch billing and revenue in this area. The common irregularities and errors were analyzed and remedial measures suggested for avoiding its recurrence. During 2008-09, this section audited revenue matters of HT/EHT consumers and submitted 3 reports.

16.11 RAO MONITORING CELL

This section monitors the performance of all 23 Regional Audit Offices including follow up actions on the audit observations reported. This section also gives information to the Board regarding the functioning of the system and major discrepancies/irregularities based on the reports of Regional Audit Offices.



17.VIGILANCE & SECURITY

Vigilance and Security Department is headed by the Chief Vigilance Officer (CVO) in the rank of Inspector General of Police who is on deputation from the Police Department. The Inspector General of Police (Chief Vigilance Officer KSE Board) reports directly to the Chairman, K.S.E. Board. There are two wings namely Vigilance and Anti Power Theft Squad (APTS) under the control of Chief Vigilance Officer, KSE Board. Duties and Functions of Vigilance & APTS Wings are as follows.

17.1 VIGILANCE WING

17.1.1 The Vigilance Wing is constituted to effectively combat corruption and misconduct on the part of officers / employees of the Board. It deals with complaints of misconduct, malpractices, irregularities, corruption etc. against Board Officials and also the security aspects of the Board's installations. The enquiries are mainly against

- ❖ Corruption.
- ❖ Under Billing.
- ❖ Misuse, Misappropriation and theft of stores & funds and other properties of Board.
- ❖ Misuse of departmental vehicles.
- ❖ Corrupt practices in respect of purchase, distribution & disposal of stores.
- ❖ Transactions with fictitious firms and other irregularities relating to tenders, quotations etc.
- ❖ False claims of TA, Medical reimbursement etc.
- ❖ Illegal gratification in any form.
- ❖ Nepotism.
- ❖ Causing wrongful loss to Board's property or revenue or claims or dues.
- ❖ Any dishonest or intentionally improper conduct on part of a Board employee / officer or abuse of his power as a Board employee / officer
- ❖ Any other types of misconduct / irregularity as may come to light from time to time.

This wing also makes enquiries and gives clearance for various purposes such as:

- ☐ Promotion of employees/officers.
- ☐ Pensionary benefits to retired officers.
- ☐ Taking up employment abroad.
- ☐ Invalid pension.

Other duties assigned to the wing are:

- ❖ Initiating and taking follow up action in all disciplinary cases initiated against officers of and above the rank of Executive Engineer/ Accounts Officer.



- ❖ Processing of appeals preferred before Chairman and the Board.
- ❖ Prohibitory orders for classified area.
- ❖ Follow up action in all VACB surprise checks and prosecutions at the instance of Government.
- ❖ Preparation of Statement of Facts for cases at High Court, Lok Ayukta, Civil Courts, CDRF where the Chairman or Chief Vigilance Officer figure as respondent.
- ❖ Liaison works with Police Department in the event of strike or agitation.
- ❖ Advice on security measures of projects and other important installations of the Board.

17.1 ANTI POWER THEFT SQUAD (APTS)

17.2.1 Anti Power Theft Squad (APTS) is constituted under Inspector General of Police (CVO KSE Board) as a central agency to detect pilferage and misuse of electricity all over the State of Kerala. Three Executive Engineers under the control of three Deputy Chief Engineers, APTS, Thiruvananthapuram, Aluva and Kozhikode co-ordinate the APTS activities in Southern, Central and Northern Region respectively and the head quarters of these Regional Units are located at Thiruvananthapuram, Aluva and Kozhikode.

17.2.2 The APT squads inspect and detects irregularities committed by various sections of consumers, which include

- ❖ Pilferage of energy
- ❖ Unauthorised connections
- ❖ Misuse / Unauthorised use of energy

17.2.3 The duties and functions of Anti Power Theft Squad also include:

- ❖ Systematic collection of information on power thefts and follow up action.
- ❖ Initiating action on complaints of power thefts received from various quarters.
- ❖ Maintaining liaison with local police officers and ensuring that the cases reported to them are properly investigated by them and successfully prosecuted in the Courts of law.
- ❖ Monitoring the progress of prosecution in cases of power theft to ensure their successful completion.

ACTIVITIES DURING 2008-09

17.3 VIGILANCE WING

17.3.1 The references received in this Wing include petitions from the public, Government, Lok Ayukta etc. They contain allegations of corruption, consumer harassment, problems faced by general public (delay in effecting service connection, low voltage, overlooking priority, non-functioning of street lights etc.). In addition, the references include complaints from the



staff regarding non-receipt of pay and allowances and other claims, irregularities in allocation of quarters etc. These allegations are scrutinized and petitions containing serious allegations are enquired into by Technical and Police Vigilance Officers in a time bound manner. In certain cases team consisting of Technical and Police Vigilance Officers conduct enquiries. In the case of allegation against senior officers the enquiries are conducted under the direct supervision of Chief Vigilance Officer, KSE Board.

17.4 ANTI POWER THEFT SQUAD

17.4.1 After reorganization, there are 13 Anti Power Theft Squad units, which have headquarters at Thiruvananthapuram, Kollam, Thiruvalla (for Pathanamthitta and Alappuzha districts), Kottayam, Ernakulam, Vazhathope (Idukki), Thrissur, Palakkad, Malappuram, Kozhikode, Kalpetta (for Wayanadu district), Kannur and Kasargode. The service of APTS has been extended to the Thrissur Municipal Corporation as per the request of the Thrissur Municipal Corporation (the Licensee) for detecting theft and other irregularities committed by the erring consumers under the jurisdiction of the Thrissur Municipal Corporation.

17.4.2 During the year 2008-09 APTS wing conducted 15792 numbers of inspections across the State.

ACHIEVEMENTS OF WORKS DURING 2008-09.

17.5 VIGILANCE WING

17.5.1 1142 petitions were received from various sources during the year 2008-09. After scrutiny of the petitions, enquiry was ordered in the case of all the 1142 petitions alleging corruption. Out of this, Vigilance Wing had completed enquiry and submitted report on 867 cases as against 658 cases in 2007-08.

17.5.2 During 2008-09 Vigilance Wing handled as many as 6119 references as against 6445 references in 2007-08.

17.5.3 During 2008-09 the wing was asked to furnish details of pending Vigilance Cases / Disciplinary Proceedings regarding 980 incumbents as against 1579 incumbents in 2007-08. All these applications were processed in a time bound manner and details could be furnished within the timeframe of 7 working days.

17.6 ANTI POWER THEFT SQUAD

17.6.1 APTS now operates in a technically high platform with sophisticated testing equipments like electronic reference standard meters with theft analyzing capability & Meter Reading Instruments for downloading tamper data from the memory of consumer meter. The squads were provided with Lap Top Computers to improve their efficacy in detecting power theft and in maintenance of connected statistical data. The analysis of Meter Reading Instrument data



equips the Board with ample corroborative evidences in case of litigation. Considerable number of Power Thefts with the aid of hi-tech devices and remote control systems could be detected during 2008-09.

17.6.2 During the year 2008-09, 15792 numbers of inspections were conducted all over the State. 504 cases of Power Theft were detected and out of the total assessment of Rs. 29,57,93,256/- made, Rs. 18,96,75,154/- was realized as against the assessment of Rs. 16,93,33,205/- in 2007-08 and realization of Rs. 10,49,94,294/-. Details are furnished in **Annexure 17 A.**

17.6.3 During the year 2008-09, all squads in different areas conducted special operations each month outside their area of jurisdiction, which becomes fruitful in increasing revenue to Board. In Ernakulam district the APT Squads detected majority of theft and other unauthorised uses from erring consumers.

17.6.4 During the year 2008-09, the scheme for giving cash reward to public-spirited citizens and Non-Governmental Organizations who give information regarding theft of power and Officers who detect theft of energy and thereby increase in revenue to the Board was also introduced.

17.6.5 In pursuance of the declared policy of the Government in intensifying the Board Vigilance and Anti Power Theft Squad to combat corruption and power theft, the Board's Vigilance wing has predominantly succeeded in achieving the goals.



18. ANNEXURES

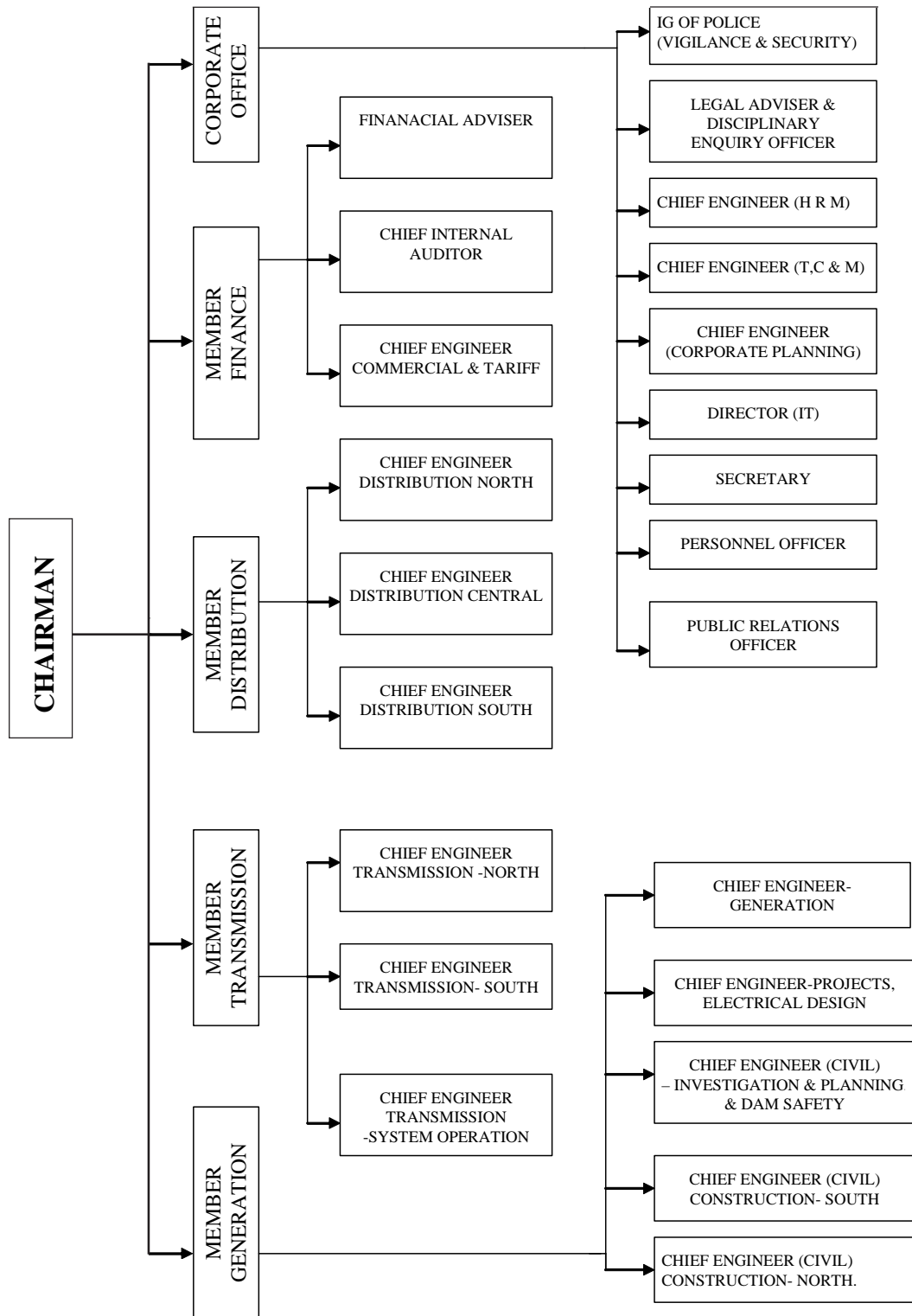
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ANNEXURE- 1A

ORGANISATION CHART OF K.S.E.B. BOARD AS ON 31-03-2009





ANNEXURE- 2A

DETAILS OF SWAPPING OF HIGH COST LOANS

Year	Item	Amount (Rs. Cr)	Before Swapping		After Swapping			Premium Paid (Rs. Cr)	Total Net Gains (Rs. Cr)	Net Gain per Annum
			Interest %	Int. payable (Rs.Cr)	Interest %	Revised Rate from 01/02/2005	Int.Pay.			
2003-04	Non SLR Bond	300.00	15.25	187.58	7.50	7.00%	54.72	Nil	132.86	26.57
	REC Ist Stage	649.43	13-15	278.95	10.50		226.89	20.21	31.85	3.98
	REC IInd Stage	118.97	10-13	39.97	10.00		29.36	2.96	7.65	0.85
	L I C	187.41	14	102.98	11.00		80.91	7.8	14.27	1.10
	PFC Ist Stage	100.00	15-17	67.26	8.5-10		49.98	8.55	8.73	0.97
	PFC IInd Stage	18.13	13.5-15	7.21	8.50		5.74	0.94	0.53	0.08
	Commercial Banks (for KDPP)	125.00	13.75	48.35	11.25	6.90%	25.47	0.00	22.88	2.29
	Total	1498.94		732.3			473.09	40.46	218.77	35.84
2004-05	Premature Redemption of Non SLR Bonds (Bond IX)	6.58	13.25	2.22	6.50		1.09	Nil	1.13	0.37
	REC-Short Term Loan	48.77	9.75	3.23	6.50		1.71	0.42	1.10	1.10
	Total	55.35		5.45			2.80	0.42	2.23	1.47
2005-06	Premature Redemption of Non SLR Bonds (Bond VII)	1.95	13.75	0.27	6.20		0.12	Nil	0.15	0.15
	Premature Redemption of Non SLR Bonds (Bond VIII)	1.6	13.00	0.21	6.25		0.10		0.11	0.07
	Premature Redemption of Non SLR Bonds (Bond X a)	10.31	11.40	3.41	6.25		1.87		1.54	0.39
	Premature Redemption of Non SLR Bonds (Bond X b)	0.05	11	0.03	6.25		0.02		0.01	0.002
	LIC Stage -II	145.2	11	68.01	9.00		55.64	4.65	7.55	0.58
	Total	159.11		71.93			57.75	4.65	9.36	1.19
2006-07	Premature Redemption of Non SLR Bonds Series X	0.10	11.40	0.03	Board's own fund		0	0	0.03	0.002
	Premature Redemption of Non SLR Bonds Series IX	0.125	13.25	0.02	Board's own fund		0	0	0.02	0.01
	Closure of Loan from SBT for Neriamangalam Extension Scheme	20.00	9.00	10.69	Board's own fund		0	0	10.69	1.04
	Closure of Loan from Comm. Banks for KDPP	33.02	6.90	3.43	Board's own fund		0	0	3.43	1.14
	KPFC	9.35	7.25	0.49	Board's own fund		0	0	0.49	0.49
									14.66	2.682
	Total	62.60		14.66						
2007-08	Non-SLR Bond Series XA	178.75	11.40	20.38	Board's own fund		0	0	20.38	10.19
2008-09	KPFC	100.00	11.75	8.82	Boards own fund		0	0	8.82	8.82
	KPFC	205.16	10.91	33.57	"		0	0	33.57	22.38
	PFC	24.58	14.10	5.16	"		0	0	5.16	0.73
	2008-09 TOTAL	329.74		47.55			0	0	47.55	31.93
	TOTAL	2284.39		892.27			533.67	45.53	312.95	83.30

The Board will continue to swap the other high cost loans wherever feasible.



ANNEXURE- 2B

EXPENSES PER UNIT SALE OF ENERGY

Rs./kwh

Sl. No.	Particulars	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	Generation of power	0.16	0.09	0.05	0.09	0.15	0.32
2	Purchase of power	2.12	1.56	1.41	1.32	1.58	2.65
3	Interest & Finance Charges	0.82	0.65	0.52	0.35	0.26	0.26
4	Depreciation	0.37	0.40	0.36	0.33	0.31	0.34
5	Employee Cost	0.88	0.84	0.79	0.73	0.67	0.97
6	Repair & Maintenance	0.07	0.08	0.09	0.09	0.09	0.11
7	Administration & General Expenses	0.10	0.10	0.10	0.11	0.09	0.11
8	Other Expenses (Other debits + Prior period charges)	0.16	0.13	0.20	0.56	0.65	- 0.12
9	Gross Expenditure(1 to 8)	4.67	3.84	3.51	3.57	3.80	4.64
10	Less: Expenses Capitalised	0.12	0.05	0.04	0.03	0.04	0.05
11	Less: Interest Capitalised	0.09	0.07	0.04	0.03	0.02	0.02
12	Total Expenditure(9-10-11)	4.46	3.73	3.43	3.51	3.74	4.57
13	Statutory Surplus	0.10	0.11	0.09	0.18	0.16	0.17
14	ARR(12 + 13)	4.57	3.84	3.52	3.68	3.90	4.74
15	Non-Tariff Income	0.34	0.36	0.30	0.33	0.33	0.35
16	Revenue from sale of power (including surplus power)	3.09	3.11	3.09	3.24	3.50	3.80
17	Total Income (15+16)	3.43	3.47	3.39	3.57	3.83	4.15
18	Revenue Gap (14-17)	1.14	0.37	0.13	0.11	0.07	0.58



ANNEXURE- 2C

COMPARISON OF EXPENSES AS PERCENTAGE OF TOTAL EXPENSES

In Percentage

Sl. No.	Particulars	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
1	Generation of power	3.53	2.25	1.34	2.45	3.75	6.80
2	Purchase of power	46.39	40.64	39.97	35.74	40.20	56.03
3	Interest & Finance Charges	17.85	16.82	14.75	9.42	6.75	5.57
4	Depreciation	8.02	10.41	10.23	8.91	8.02	7.13
5	Employee Cost	19.38	21.94	22.48	19.70	17.31	20.58
6	Repair & Maintenance	1.57	2.07	2.44	2.43	2.22	2.28
7	Administration & General Expenses	2.08	2.64	2.97	2.96	2.40	2.22
8	Other Expenses (Other debits + Prior period charges)	3.52	3.27	5.58	15.33	17.84	-2.64
9	Less: Expenses Capitalised	2.68	1.19	1.26	0.95	0.92	1.16
10	Less: Interest Capitalised	1.92	1.72	1.14	0.77	0.56	0.37
11	Statutory Surplus	2.26	2.87	2.64	4.77	4.16	3.56
12	ARR	100.00	100.00	100.00	100.00	100.00	100.00



ANNEXURE- 2D

REVENUE ACCOUNT

	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
UNITS SOLD (MU)	8910.84	9384.4	10905.7	12377.89	13396.61	12877.65
Ex.Bus Energy in MU	12455.37	12719.77	14254.86	15844.95	16722.31	16069.42
Losses in %	0.28	0.26	0.25	0.23	0.22	0.20
INCOME: Rs. in crores						
Revenue from sale of Power	2969.22	3158.89	3590.11	4286.13	4934.06	5097.49
Revenue from Subsidies & Grants	1007.43	342.77	144.58	0.00	0.00	0.00
Revenue Gap/Regulatory Asset				142.23	91.28	749.17
Other Income	91.52	98.13	102.62	130.04	201.79	252.33
Total Income	4068.17	3599.77	3837.32	4558.4	5227.14	6098.99
Total Income (without subsidies & Grants)	3060.74	3257.01	3692.7	4416.17	5135.84	5349.82
EXPENDITURE: Rs. in Crores						
Purchase of power	1887.11	1463.03	1533.93	1629.3	2101.07	3417.23
Generation of power	143.7	81.13	51.3	111.84	195.97	414.96
Repairs & Maintenance	63.79	74.49	93.82	110.99	116.26	138.80
Employee Cost	788.31	789.64	862.52	898.09	904.88	1255.19
Administration & General Expenses	84.74	95.01	113.85	135.1	125.35	135.46
Depreciation and Related Debts	326.19	374.77	392.65	405.98	419.09	434.74
Interest & Finance Charges	726.32	605.59	565.82	429.34	352.77	339.60
Total Expenditure	4020.16	3483.66	3613.88	3720.64	4215.4	6135.98
LESS:						
Expenses Capitalised						
Interest & Finance Charges Capitalised	-78.11	-62.04	-48.5	-35.13	-29.33	-22.71
Other Expenses Capitalised	-109.04	-42.88	-43.61	-43.19	-48.08	-70.75
Other Debits	22.72	36.49	132.29	683.47	932.27	366.98
Net prior period Credits /Charges	120.63	81.05	82.01	15.2	60.76	527.94
Surplus/Deficit	91.83	103.49	101.26	217.42	217.42	217.42
Overall Expenditure	4068.17	3599.77	3837.32	4558.4	5227.13	6098.99
Revenue Gap : Rs in Crores	1007.43	342.76	144.58	142.23	91.29	749.17



ANNEXURE- 3A

INSTALLED GENERATING CAPACITY AS ON 31.03.2009						
(STATION WISE)						
Sl.No.	Name of Station	District		Date of Commissioning	After RMU works	Capacity (MW)
PART A. HYDEL						
1	Pallivasal	Idukki	I Unit - 5 MW II Unit - 5 MW III Unit - 5 MW IV Unit - 7.5 MW V Unit - 7.5 MW VI Unit - 7.5 MW	19/03/40 02/02/41 10/02/42 01/05/48 01/10/49 07/03/51	19/11/01 17/11/01 20/11/01 26/08/02 21/08/02 19/08/02	37.50
2	Sengulam	Idukki	I Unit - 12 MW II Unit - 12 MW III Unit - 12 MW IV Unit - 12 MW	01/05/54 25/07/54 11/11/54 05/01/55	30/11/02 04/10/02 05/12/01 01/12/01	48.00
3	Neriamangalam	Idukki	I Unit - 18MW II Unit - 18 MW III Unit - 15 MW	27/01/61 09/04/61 11/05/63	20/10/04 30/11/05 29/09/06	54.00
4	Panniar	Idukki	I Unit - 15 MW II Unit - 15 MW	29/12/63 26/01/64	01/02/03 23/11/01	30.00
5	Poringalkuthu	Thrissur	I Unit - 8 MW II Unit - 8 MW III Unit - 8 MW IV Unit - 8 MW	06/03/57 13/01/58 24/04/59 06/02/60		32.00
6	Sholayar	Thrissur	I Unit - 18 MW II Unit - 18 MW III Unit - 18 MW	09/05/66 26/01/68 14/05/68		54.00
7	Sabarigiri	Pathanamthitta	I Unit - 50 MW II Unit - 55 MW III Unit - 55MW IV Unit - 55 MW V Unit - 55 MW VI Unit - 60 MW	18/04/66 14/06/66 29/12/66 22/06/67 09/09/67 26/11/67	04/02/09 17/03/08 11/02/07 05/05/06 01/07/05	330.00
8	Kuttiyadi	Kozhikkode	I Unit - 25 MW II Unit - 25 MW III Unit - 25 MW	11/09/72 01/11/72 28/11/72		75.00
9	Idukki	Idukki	I Unit - 130 MW II Unit - 130 MW III Unit - 130 MW IV Unit - 130 MW V Unit - 130 MW VI Unit - 130 MW	12/02/76 07/06/76 22/12/76 30/10/85 22/03/86 30/08/86		780.00
10	Idamalayar	Idukki	I Unit - 37.5 MW II Unit - 37.5 MW	03/02/87 28/02/87		75.00



11	Kallada	Kollam	I Unit - 7.5 MW II Unit - 7.5 MW	05/09/94 05/01/94		15.00
12	Peppara	Trivandrum	I Unit - 3 MW	15/06/96		3.00
13	Lower Periyar	Idukki	I Unit - 60 MW II Unit - 60 MW III Unit - 60 MW	27/09/97 22/10/97 28/11/97		180.00
14	Madupetty	Idukki	I Unit - 2 MW	14/01/98		2.00
15	Poringalkuthu Left Bank	Thirissur	I Unit - 16 MW	20/03/99		16.00
16	Kakkad	Pathanamthitta	I Unit - 25 MW II Unit - 25 MW	13/10/99		50.00
17	Kuttiyadi extension	Kozhikkode	I Unit - 50 MW	27/01/01		50.00
18	Malampuzha	Palakkad	I Unit - 2.5 MW	26/11/01		2.50
19	Chembukadavu stage I	Kozhikkode	I Unit -0.9 MW II Unit-0.9MW III Unit-0.9 MW	25/01/04		2.70
20	Chembukadavu stage II	Kozhikkode	I Unit- 1.25 MW II Unit- 1.25MW III Unit-1.25MW	25/01/04		3.75
21	Urumi Stage I	Kozhikkode	I Unit -1.25 MW II Unit- 1.25 MW III Unit-1.25 MW	25/01/04		3.75
22	Urumi Stage II	Kozhikkode	I Unit - 0.8 MW II Unit - 0.8 MW III Unit-0.8 MW	25/01/04		2.40
23	Malankara	Idukki	I Unit - 3.5 MW II Unit - 3.5 MW III Unit-3.5 MW	23/10/05		10.50
24	Lower Meenmutty	Trivandrum	I Unit - 1.5 MW II Unit - 1.5 MW III Unit- 0.5 MW	25/03/06		3.50
25	Neriamangalam Extension	Idukki	I Unit - 25 MW	27/05/08		25.00
26	Kuttiyadi Tail Race	Kozhikkode	I Unit - 1.25 MW II Unit - 1.25 MW	19/11/08		2.50
TOTAL						1888.10

PART B THERMAL

Sl.No.	Name of Station	District		Date of Commissioning	After RMU works	Capacity (MW)
1	Brahmapuram (BDPP)	Ernakulam	I Unit-21.32MW II Unit-21.32MW III Unit-21.32MW IV Unit-21.32 MW V Unit-21.32 MW	06/05/97 08/08/97 07/10/97 17/12/97 24/11/98		106.60



2	Kozhikode (KDPP)	Kozhikkode	I Unit - 16 MW II Unit - 16 MW III Unit - 16 MW IV Units - 16MW V Units - 16MW VI Units - 16MW VII Units - 16MW VIII Units - 16MW	01/09/99 11/09/99 18/09/99 23/09/99 30/09/99 11/09/99 25/10/99		128.00
	Total					234.60

PART C- NON CONVENTIONAL - WIND

1	Kanjikode		1-IX Units 0.225MW Each	18/05/95		2.03
2	Ramakalmedu (IPP)		18 units 0.750MW Each	25/05/08		13.5
3	Agali (IPP)		14 units 0.6 MW Each			8.40
	Total					23.93

PART D CAPTIVE & IPP

A Captive Hydel						
Sl.No.	Name of Station	District		Date of Commissioning	After RMU works	Capacity (MW)
1	Maniyar	Pathanamthitta	I Unit- 4 MW II Unit- 4 MW III Unit- 4 MW	31/03/94 30/12/94 29/12/94		12.00
2	Kuthungal	Idukki	I Unit- 7 MW II Unit- 7 MW III Unit- 7 MW	01/06/01 01/06/01 01/06/01		21.000
	Total					33.00
B IPP's						
1	Kayamkulam (Central Sector) NTPC)	Alappuzha	I Unit- 116.6 MW II Unit- 116.6 MW III Unit- 126.38 MW	02/11/98 28/02/99 11/12/99		359.58
2	BSES	Ernakulam	I Unit- 40.5 II Unit- 40.5 III Unit- 40.5 IV Unit- 35.5	15/06/01 15/06/01 15/06/01 01/03/02		157.00
3	Kasargode Power Corporation	Kasargod	I Unit- 7.31 MW II Unit- 7.31 MW III Unit- 7.31 MW	1/1/2001		21.93
	Total					538.51
	Grand Total					2718.14



ANNEXURE- 3B

Station wise Monthly Generation Details 2008 - 09

	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	TOTALinMU
1 IDAMALAYAR	33616500	36310500	33107500	17518377	14446711	28860923	32788933	23181341	8903192	23345510	25946109	15137332	293.1629
2 IDUKKI	348600000	344665000	241975000	189775000	110630000	123850000	117465000	126185000	122005000	98935000	120820000	151890000	2096.7950
3 KAKKAD	22333600	11416400	2333600	9674800	15675200	15188400	14482000	12634000	12407200	13166800	15472000	18012400	162.7964
4 KALLADA	5363000	3711000	1619400	867200	1230500	1256900	4060300	7538800	2821700	4491800	5700400	6957500	45.6185
5 KUTTIADY	43941800	40215600	54282300	67600300	78592700	56175400	58675300	40928400	38149400	29933500	38735700	47466800	594.6972
6 LOWER MEENMUTTY	92250	107325	205875	580725	541800	638325	612000	609300	317925	68175	18450	28800	3.8210
7 LOWER PERIYAR	25700000	29088000	27612000	56496000	99932000	86268000	58316000	35752000	21452000	15988000	11172000	15216000	482.9920
8 MADUPATTY	992400	806400	207000	38400	0	0	618300	444000	498300	650100	585900	798300	5.6391
9 MALAMPUZHA	0	0	0	0	0	0	0	0	0	0	0	0	0.0000
10 MALANKARA	3586800	4425600	3931050	4191600	3426450	3182250	2278950	1845600	1717050	1195500	1495500	2217600	33.4940
11 NERIAMANGALAM	23812197	30135129	17786987	28054513	47517923	43750279	40759421	27849117	18813111	13984689	10541402	15870807	318.8756
12 PALLIVASAL	20842200	16982400	13364600	13656200	13128700	15322500	15683700	18520100	18593500	16831800	16316400	18714900	197.9570
13 PANNIAR	0	0	0	0	0	0	0	0	0	0	0	0	0.0000
14 PEPPARA	16500	115500	0	156600	844500	1038000	1137900	729600	545400	276600	276600	272100	5.4093
15 PORINGAL & PLBE	12929840	15111120	13660640	29141760	34001280	28904980	30429300	18184740	14466530	11852690	13851810	14615130	237.1498
16 SABARIGIRI	161502500	79510000	0	19632500	75395000	78645000	81940000	78495000	82780000	82027500	103425000	119595000	962.9475
17 SENGULAM	12283900	10662300	12326900	13702600	18592200	17437300	16018100	13375600	10667600	9776200	8724900	9978400	153.5460
18 SHOLAYAR	23499400	20391700	1826300	4807000	2847600	27264700	27405400	12827000	19201400	18130800	29515300	26209000	213.9256
19 CHEMBUKADAVU - I	0	0	0	1202634	986526	800172	232506	12582	0	0	0	0	3.2344
20 CHEMBUKADAVU - II	0	0	0	1788888	1565640	1207752	340632	19920	0	0	0	0	4.9228
21 URUMI - I	0	0	0	1811496	1465848	1249464	656712	127200	16152	0	0	0	5.3269
22 URUMI - II	0	0	0	1161792	997866	883242	390348	96318	18036	0	0	0	3.5476
* TOTAL (Hydel)	739112887	643653974	424239152	461858385	521818444	531923587	504290802	419355618	373373496	340654664	402597471	462980069	5825.8585
23 BDPP (Thermal)	26992000	25619000	22487000	16348000	12207000	12347000	15728000	15329000	19145000	11315000	12124000	27342000	216.9830
24 KDPP (Thermal)	26870330	38979140	27226130	34188060	36912540	31092140	39262220	41413800	41225300	38546610	36428100	46123300	438.2677
* TOTAL (Thermal)	53862330	64598140	49713130	50536060	49119540	43439140	54990220	56742800	60370300	49861610	48552100	73465300	655.2507
25 KANJIKODE	114875	300475	191274	222844	209262	157935	66613	58157	148892	186394	95949	59832	1.8125
GRAND TOTAL	793090092	708552589	474143556	512617289	571147246	575520662	559347635	476156575	433892688	390702668	451245520	536505201	6482921721

GENERATION, IMPORT & CONSUMPTION DETAILS FOR 2008-09

Annexure-3 C

Month	GENERATION					** NET IMPORT	Kerala Consumption (MU)	MW	KERALA (MD)	
	Hydel	Thermal	* IPP	Captive	Wind				Date & Time	
Apr-08	735.8948	53.1629	15.4140	8.6228	0.1149	543.8058	1357.0153	2660	at 19-19:30hrs on 22/04/2008	
May-08	650.6590	63.4020	109.6169	16.3918	0.3005	577.0207	1417.3909	2764	at 19-19:30hrs on 14/05/2008	
Jun-08	427.9479	50.8970	120.9769	14.0721	0.1913	626.7860	1240.8712	2638	at 19:30-20Hrs on 07/06/2008	
Jul-08	460.6685	50.7950	83.6383	15.4226	0.2228	626.6579	1237.4051	2299	at 19-19:30hrs on 08/07/2008	
Aug-08	522.4818	48.9250	27.2437	13.4242	0.2093	606.6254	1218.9094	2237	at 20:30-21hrs on 06/08/2008	
Sep-08	529.5559	42.5650	5.5653	12.5287	0.1579	627.7146	1218.0875	2453	at 18:30-19hrs on 25/09/2008	
Oct-08	509.7938	55.4360	102.7115	15.7748	0.0520	586.2010	1289.9691	2457	at 19-19:30hrs on 01/10/2008	
Nov-08	418.7565	57.4992	196.4490	15.7211	0.0326	564.4696	1252.9279	2377	at 18:30-19hrs on 10/11/2008	
Dec-08	378.0334	60.0580	157.4054	17.9147	0.0785	672.0332	1285.5231	2547	at 19-19:30hrs on 24/12/2008	
Jan-09	339.5868	49.3320	223.4899	11.3798	0.0992	661.8712	1285.7590	2357	at 19:30-20hrs on 29/01/2009	
Feb-09	402.2349	48.6640	211.6391	9.3629	0.0492	555.3364	1227.2865	2434	at 20-20:30hrs on 25/02/2009	
Mar-09	463.6713	72.7990	226.3918	10.3364	0.1737	653.4484	1426.8205	2765	at 21-21:30Hrs on 20/03/2009	
Total	5839.2848	653.5351	1480.5418	160.9517	1.6819	7301.9703	15437.9655			

*The generation from RGCCPP and BSES for sale is not included

* *Net import excludes all bilateral transactions from RGCCPP & BSES





ANNEXURE- 3D

HYDEL PROJECTS BEING TAKEN UP FOR IMPLEMENTATION

No.	Name of Scheme	Capacity (MW)	Energy (MU)	Remarks
1	Sengulam Augmentation Scheme		85	Tender finalization stage
2	Ranni-Perunad SHEP	4	16.73	Agreement executed for project implementation and work commenced.
3	Thottiyar HEP	40	99	Agreement executed for project implementation and work commenced.
4	Pallivasal Extension Scheme	60	153.9	Project under execution
5	Adyanpara	3.5	9.01	Project under execution. Work held up.
6	Poozhithode	4.8	10.97	Work awarded
7	Peechi SHEP	1.5	4.015	Tenders invited.
8	Kuttiyadi Additional Extension	100	240.5	Project under execution
9	Kuttiyadi Tail Race	3.75	17.1	Two units commissioned , and third unit expected to be completed in September 2009.
10	Kuttiyar Diversion	0	37	96.9 % works completed
		217.55	673.225	



ANNEXURE- 3E

HYDEL PROJECTS PROPOSED FOR IMPLEMENTATION

Sl. No.	Name of Scheme	Capacity (MW)	Basin	Remarks
1	Anakkompoil	7.5	Chaliyar	DPR approval stage
2	Kandappanchal	3.75	Chaliyar	DPR approval stage
3	Peechadu	3	Periyar	DPR approved
4	Upper Kallar	2	Periyar	DPR approved
5	Poru Falls	16	Periyar	DPR approved
6	Pambar	40	Cauvery	DPR approval stage
7	Vakkallar	24	Pamba	DPR approval stage
8	Pooyamkutty	210	Periyar	DPR approval stage
9	Karappuzha DamToe	0.5	Cauvery	DPR approved
10	Chinnar (revision)	24		DPR approved
11	Kakkayam small HES	4	Kuttiadi	DPR approved
12	Athirappilly HEP	163	Chalakudy basin	Retender invited, under litigation.
13	Perumthenaruvi	6	Pamba	DPR approved, forest clearance to be obtained.
14	Mankulam	40	Periyar	DPR approved, tendering stage
15	Sengulam Tail Race	3.6	Periyar	DPR approved.
16	Chimony	2.5	Chalakkudy	Cancelled, allotment to District Panchayat
17	Anakkayam	7.5	Chalakkudy	DPR approval stage
18	Barapole	15	Valapattanam	DPR under revision.
19	Poringalthu Extension-I	24	Chalakudy	DPR approval stage
20	Pazhassy sagar	20	Valapattanam	DPR approval stage
21	Chathankottunada	6	Kuttiyadi	Tendering stage
22	Vilangadu	7.5	Kuttiyadi	Tendering stage
23	Chembukadavu III	6	Kuttiyadi	DPR under prepearation
24	Peruvannamuzhy	7	Kuttiyadi	DPR under prepearation
25	Thumboormoozhy	8	Chalakudy	DPR under preparation
26	Western Kallar	5	Periyar	DPR under preparation
27	Koodam	4.5	Bhavani	DPR under preparation
28	Sengulam Extension	48	Periyar	DPR under preparation
29	Kanthenpara	45	Chaliyar	DPR under preparation
30	Vythiri	60	Kabani	DPR under preparation
31	Ladrum	3.5	Periyar	DPR under preparation
32	Olikkal	4	Chaliyar	DPR under preparation
33	Poovaramthode	2	Chaliyar	DPR under preparation
34	Marmala	4	Meenachal	DPR under preparation
35	Chathankottunada I	4.5	Kuttiyadi	DPR under preparation
36	Passukadavu	2	Kuttiyadi	DPR under preparation
	TOTAL	833.35		



ANNEXURE- 4A

LIST OF SUBSTATIONS AS ON 31.03.2009

Sl. No.	Name of Substation & Voltage Level	Date of Commissioning	District
400 KV SUBSTATIONS			
1	MADAKKATHARA	30/01/1993	THRISSUR
2	PALLIPURAM	26/07/2005	TRIVANDRUM
220 KV SUBSTATIONS			
1	AREACODE	May 1998	MALAPPURAM
2	BRAHMAPURAM	December 1999	ERNAKULAM
3	EDAMON	18/12/1978	KOLLAM
4	KALAMASSERY	1965	ERNAKULAM
5	KANHIRODE	15/09/1997	KANNUR
6	KANIAMBETTA	19/05/1994	WAYANAD
7	KANJIKKODE	May 1997	PALAKKAD
8	KUNDARA	01/05/2006	KOLLAM
9	MALAPPARAMBA	23/12/2007	MALAPPURAM
10	MYLATTY	16/10/1998	KASARGODE
11	NALLALAM	19/08/1950	KOZHIKKODE
12	PALLOM	1965	KOTTAYAM
13	POTHENCODE	28/02/1989	TRIVANDRUM
14	SHORNUR	24/01/2004	PALAKKAD
15	THALIPPARAMBA	29/03/2005	KANNUR
110 KV SUBSTATIONS			
1	ADIMALY	23/05/1999	IDUKKI
2	AGASTHYAMOOZHI	25 / 01/ 2004	KOZHIKKODE
3	ALUVA	14/11/1977	ERNAKULAM
4	AMBALAPPURAM	March 2003	KOLLAM
5	AROOR	07/03/1994	ALAPPUZHA
6	ARUVIKKARA	10/08/1998	TRIVANDRUM
7	ATHANI	15/10/1992	THRISSUR
8	ATTINGAL	22/02/2007	TRIVANDRUM
9	AYATHIL	28/03/2009	KOLLAM
10	AZHIKODE	April 2000	KANNUR
11	CHAKKITTAPPARA	14/01/2005	KOZHIKKODE



12	CHALAKKUDY	1957	THRISSUR
13	CHELARI	February 2003	MALAPPURAM
14	CHELLANAM	24/05/2007	ALAPPUZHA
15	CHENGALAM(KUMARAKOM)	11/10/1994	KOTTAYAM
16	CHENGANNOOR	17/12/1990	ALAPPUZHA
17	CHERPLASSERY	March 2004	PALAKKAD
18	CHERPU	December 2000	THRISSUR
19	CHERUPUZHA	23/05/1998	KANNUR
20	CHERUVATHUR	07/06/2002	KASARGODE
21	CHEVAYUR	24/02/1996	KOZHIKKODE
22	EDAPPAL	03/01/2000	MALAPPURAM
23	EDAPPALLY	23/03/2002	ERNAKULAM
24	EDAPPON	28/12/1980	ALAPPUZHA
25	EDARIKKODE	08/02/2004	MALAPPURAM
26	EDATHUA	17/03/2008	ALAPPUZHA
27	EDAYAR	01/04/2000	ERNAKULAM
28	ERATTUPETTA	17/04/2001	KOTTAYAM
29	EZHIMALA	26/09/2001	KANNUR
30	GURUVAYUR	24/11/2004	THRISSUR
31	IRINJALAKKUDA	December 2000	THRISSUR
32	KADAVANTHARA	August 1997	ERNAKULAM
33	KALOOR	16/09/1993	ERNAKULAM
34	KANDANAD	January 2001	ERNAKULAM
35	KANDASSANKADAVU	02/01/2005	THRISSUR
36	KANHANGAD	10/12/1993	KASARGODE
37	KANJIKKODE	19/04/1993	PALAKKAD
38	KASARGODE(VIDYANAGAR)	11/08/1974	KASARGODE
39	KATTAKKADA	21/03/1996	TRIVANDRUM
40	KAVANADU	15/09/1993	KOLLAM
41	KAYAMKULAM	16/06/1999	ALAPPUZHA
42	KILIMANOOR	29/12/1998	TRIVANDRUM
43	KIZHISSERY	31/08/1990	MALAPPURAM
44	KODAKARA	18/04/2001	THRISSUR
45	KOLLENGODE	February 2004	PALAKKAD
46	KOOTTANAD	25/03/2000	PALAKKAD
47	KOPPAM	27/12/1995	PALAKKAD
48	KOTTARAKKARA	30/11/2004	KOLLAM
49	KOTTIYAM	19/05/1998	KOLLAM



50	KOYILANDY	28/03/1985	KOZHIKKODE
51	KOZHENCHERY	March 2003	PATHANAMTHITTA
52	KOZHINJAMPARA	16/09/2008	PALAKKAD
53	KUBANOOR	21/10/1983	KASARGODE
54	KUNNAMANGALAM(KZD)	29/05/1997	KOZHIKKODE
55	KUNNAMKULAM	30/03/2005	THRISSUR
56	KURUMASSERY	December 2000	ERNAKULAM
57	KUTTIPPURAM	October 2000	MALAPPURAM
58	KUTTIYADI	08/10/1990	KOZHIKKODE
59	MALAMPUZHA	20/05/1994	PALAKKAD
60	MALAPPURAM	01/01/1976	MALAPPURAM
61	MALAYATTOOR	12/01/1993	ERNAKULAM
62	MALLAPALLY	May 2000	PATHANAMTHITTA
63	MANGAD	02/08/1976	KANNUR
64	MANJESWARAM	26/05/1997	KASARGODE
65	MANNARKKAD	October 2001	PALAKKAD
66	MATTANCHERY	08/06/2002	ERNAKULAM
67	MEDICAL COLLEGE (TVM)	26/05/1998	TRIVANDRUM
68	MELATTOOR	27/01/2006	MALAPPURAM
69	MEPPAYUR	26/09/2004	KOZHIKKODE
70	MULLERIA	March 2001	KASARGODE
71	MUNDAYAD	16/10/1966	KANNUR
72	MUVATTUPUZHA	09/04/1989	ERNAKULAM
73	NADAPURAM	18/02/ 2001	KOZHIKKODE
74	NEDUMANGAD	28/06/1989	TRIVANDRUM
75	NORTH PARUR	May 2005	ERNAKULAM
76	OLLUR	January 2001	THRISSUR
77	OTTAPPALAM	30/09/1989	PALAKKAD
78	PALA	23/03/1985	KOTTAYAM
79	PANOOR	27/10/1994	KANNUR
80	PARALI	January 1994	PALAKKAD
81	PARASSALA	14/09/1994	TRIVANDRUM
82	PARUTHIPPARA	19/12/1978	TRIVANDRUM
83	PATHANAMTHITTA	03/09/1994	PATHANAMTHITTA
84	PAZHAYANGADI	25/12/1997	KANNUR
85	PAYYANNUR	04/04/1981	KANNUR
86	PAZHAYANNUR	25/04/1997	THRISSUR
87	PERUMBAVOOR	19/06/2003	ERNAKULAM



88	PINARAYI	March 2001	KANNUR
89	PIRAVOM	18/04/1994	ERNAKULAM
90	PONNANI	January 2003	MALAPPURAM
91	PULLAZHY	24/08/2007	THRISSUR
92	PUNALUR	January 2003	KOLLAM
93	PUNNAPRA	29/11/1984	ALAPPUZHA
94	PUNNAYURKULAM	01/08/2005	THRISSUR
95	RAN NY	March 2001	PATHANAMTHITTA
96	SASTHAMCOTTA	06/12/1993	KOLLAM
97	SENGULAM	1958	IDUKKI
98	TECHNOPARK	June 1999	TRIVANDRUM
99	TERLS	01/11/2004	TRIVANDRUM
100	THALASSERY	04/03/1990	KANNUR
101	THIRUMALA	Aug-00	TRIVANDRUM
102	THRIKKODITHANAM	31/03/2008	KOTTAYAM
103	THYCATTUSSERY	24/12/2003	ALAPPUZHA
104	TIRUR	April 2000	MALAPPURAM
105	UDUMPANOR	25/11/2005	IDUKKI
106	VADAKARA	10/04/1970	KOZHIKKODE
107	VADAKKENCHERRY	25/02/2006	PALAKKAD
108	VAIKOM	21/08/1982	KOTTAYAM
109	VALAPPAD	December 2000	THRISSUR
110	VARKALA	22/02/2007	TRIVANDRUM
111	VENNAKKARA(PALAKKAD)	16/07/1971	PALAKKAD
112	VIYYUR	1998	THRISSUR
113	VYTILA	1978	ERNAKULAM
114	W ISLAND	11/11/1997	ERNAKULAM
115	WADAKKENCHERRY	20/02/2006	THRISSUR
116	WESTHILL	01/01/1980	KOZHIKKODE

66 KV SUBSTATIONS

1	ADOOR	30/03/1979	PATHANAMTHITTA
2	ALAPUZZHA	Prior to 1st plan	ALAPPUZHA
3	AMBALAPPARAMBA (MAVOOR)	27/06/2001	KOZHIKKODE
4	ANGAMALY	09/12/1976	ERNAKULAM
5	AYOOR	18/08/1986	KOLLAM
6	CHAVARA	31/07/1982	KOLLAM
7	CHENGANASSERY	16/05/1970	KOTTAYAM



8	CHERTHALA	21/01/1968	ALAPPUZHA
9	CHITTUR	30/04/1990	PALAKKAD
10	CHOVVA	29/07/1995	KANNUR
11	CHUMATHARA	01/07/1989	PATHANAMTHITTA
12	EDAKKARA	20/02/2006	MALAPPURAM
13	EDATHALA	12/07/1993	ERNAKULAM
14	ERNAKULAM (NORTH)	29/11/1984	ERNAKULAM
15	ETTUMANOOR	17/09/1965	KOTTAYAM
16	G.I.S.FORT KOCHI	14/12/2006	ERNAKULAM
17	GANDHINAGAR	03/02/1987	KOTTAYAM
18	GIS LA COMPLEX	03/06/2005	TRIVANDRUM
19	GIS MARINE DRIVE	05/10/2007	ERNAKULAM
20	GIS POWER HOUSE	30/05/2005	TRIVANDRUM
21	KAKKANAD	25/07/1987	ERNAKULAM
22	KANJIRAPPALLY	23/10/1974	KOTTAYAM
23	KANNAMPULLY	10/05/1993	PALAKKAD
24	KARIMANAL	23/01/1987	IDUKKI
25	KARUKUTTY	26/01/1971	ERNAKULAM
26	KARUNAGAPPALLY	23/09/1994	KOLLAM
27	KARUVATTA	18/04/1972	ALAPPUZHA
28	KATTAPPANA	07/02/1992	IDUKKI
29	KATTOOR	05/10/1971	THRISSUR
30	KIZHAKKAMBALAM	10/08/1985	ERNAKULAM
31	KOCHINSHIPYARD(PERUMANOOR)	03/08/1972	ERNAKULAM
32	KOCHUPAMPA	13/10/1963	PATHANAMTHITTA
33	KODUNGALLUR	17/09/1980	THRISSUR
34	KOODAL	26/03/1981	PATHANAMTHITTA
35	KOOTHATTUKULAM	14/12/1973	ERNAKULAM
36	KORATTY (MADURA COATS)	15/11/1982	THRISSUR
37	KOTHAMANGALAM	Prior to 1st plan	ERNAKULAM
38	KOTTAYAM	23/10/1974	KOTTAYAM
39	KULAMAVU	10/04/1967	IDUKKI
40	KURAVILANGAD	January 2005	KOTTAYAM
41	KUTHUMUNDA	Prior to 1st plan	WAYANAD
42	KUTHUPARAMBA	07/10/1990	KANNUR
43	KUTTANAD	28/06/2006	ALAPPUZHA



44	KUTTIKATTUR	21/04/1974	KOZHIKKODE
45	MALA	18/10/1993	THRISSUR
46	MANANTHAVADY	26/03/1955	WAYANAD
47	MANJERI	07/07/1991	MALAPPURAM
48	MANKAVE	Prior to 1st plan	KOZHIKKODE
49	MATTANNUR	25/05/1987	KANNUR
50	MAVELIKKARA	Prior to 1st plan	ALAPPUZHA
51	MULAVUKAD	February 2001	ERNAKULAM
52	MUNDAKKAYAM	11/11/1997	KOTTAYAM
53	NANGIARKULANGARA	05/04/1990	ALAPPUZHA
54	NEDUMKANDOM	26/12/2006	IDUKKI
55	NEDUMPOIL	06/06/1971	KANNUR
56	NEMMARA	30/09/1976	PALAKKAD
57	NEYATTINKARA	12/08/1968	TRIVANDRUM
58	NILAMBUR	10/11/1979	MALAPPURAM
59	NJARACKAL	04/11/1973	ERNAKULAM
60	OSSIGIN(KPCL)	Prior to 1st plan	THRISSUR
61	PALODE	26/10/1980	TRIVANDRUM
62	PAMPADY	13/02/1987	KOTTAYAM
63	PANAMPILLY NAGAR	04/07/1979	ERNAKULAM
64	PARIPPALLY	26/03/1980	KOLLAM
65	PATHANAPURAM	26/03/1981	KOLLAM
66	PATHIRAPPALLY	23/08/1978	ALAPPUZHA
67	PEERUMEDU	03/06/1957	IDUKKI
68	PERINTHALMANNA	16/09/1981	MALAPPURAM
69	PUDUKKAD	31/03/1974	THRISSUR
70	PUTHENCROUZ	14/07/1984	ERNAKULAM
71	PUTHIYARAGIS	24/03/2004	KOZHIKKODE
72	SREEKANDAPURAM	19/04/1997	KANNUR
73	SULTHAN BATHERI	12/07/1986	WAYANAD
74	THAMARASSERY	21/01/1965	KOZHIKKODE
75	THIRUVALLA	1957	PATHANAMTHITTA
76	THODUPUZHA	09/04/1980	IDUKKI
77	THRIKKAKKARA	24/04/1990	ERNAKULAM
78	THRIVENI	02/11/2005	PATHANAMTHITTA
79	VANDIPPERIYAR	21/04/1990	IDUKKI
80	VATTIYOORKAVU	27/01/2005	TRIVANDRUM
81	VAZHATHOPE	09/10/1966	IDUKKI



82	VELI	28/10/1973	TRIVANDRUM
83	VIZHINJAM	12/04/1976	TRIVANDRUM
84	WALAYAR	24/05/1982	PALAKKAD
33 KV SUBSTATIONS			
1	AGALI	December 2002	PALAKKAD
2	ALANELLUR	21/11/2004	PALAKKAD
3	ALATHUR	20/06/2006	PALAKKAD
4	ANANTHAPURAM	23/03/2008	KASARGODE
5	ANCHANGADI	30/03/2005	THRISSUR
6	BADIYADUKKA	23/03/2009	KASARGODE
7	BALUSSERY	07/07/2002	KOZHIKKODE
8	BELUR	31/03/2008	KASARGODE
9	CHALISSERY	06/03/2003	THRISSUR
10	CHAVAKKAD	09/12/2004	THRISSUR
11	CHELAKKARA	13/01/2008	THRISSUR
12	CHENGAMANADU	20/06/2006	KOLLAM
13	CHIRAKKAL	10/12/2005	THRISSUR
14	CHULLIMANOOR	30/03/2009	TRIVANDRUM
15	DHARMADOM(THALASSERRY TOWN)	10/06/2008	KANNUR
16	EDAVANNA	28/11/2004	MALAPPURAM
17	ERUMAPETTY	30/09/2001	THRISSUR
18	EZHUKONE	24/03/2008	KOLLAM
19	KADACKAL	15/12/2004	KOLLAM
20	KAIPAMANGALAM	15/05/2005	THRISSUR
21	KALADY	22/12/2004	ERNAKULAM
22	KALLAMBALAM	25/07/2008	TRIVANDRUM
23	KALLETTUMKARA	29/11/2005	THRISSUR
24	KALLOORKADU	31/03/2009	
25	KALPETTA	30/11/2004	WAYANAD
26	KODIYERI	12/03/2007	KANNUR
27	KODUVAYUR	07/02/2004	PALAKKAD
28	KONGAD	12/01/2006	PALAKKAD
29	KONGANNUR	03/04/2007	THRISSUR
30	KONNI	24/03/2008	PATHANAMTHITTA
31	KOOVAPPADY	28/03/2009	ERNAKULAM
32	KORATTY	16/01/2009	THRISSUR



33	KURUMASSERY	December 2000	ERNAKULAM
34	KURUPPAMBADY	19/02/2004	ERNAKULAM
35	KUTHIATHODU	25/03/2008	ALAPPUZHA
36	KUTTIYATTOR	February 2001	KANNUR
37	MAKARAPARAMBA	29/11/2004	MALAPPURAM
38	MANIYAMPARA	03/07/2006	PALAKKAD
39	MANNAR	31/03/2009	ALAPPUZHA
40	MAZHUVANNUR	24/12/2004	ERNAKULAM
41	MEENANGADI	14/10/2004	WAYANAD
42	MELADY	03.06.2008	KOZHIKODE
43	MULLASSERY	12/03/2006	THRISSUR
44	MULLOOKKARA	13/01/2008	THRISSUR
45	MUNDUR	March 2001	PALAKKAD
46	MUTHALAMADA	07/02/2004	PALAKKAD
47	NADUKANI	22/02/2006	KANNUR
48	NEELESWARAM	18/03/2007	KASARGODE
49	NELLIAMPATHY	11/06/2005	PALAKKAD
50	OLLUR-PUTHUR	06/05/2003	THRISSUR
51	OTHUKKUNGAL	31.03.2009	MALAPPURAM
52	PADINJARATHARA	30/11/2004	WAYANAD
53	PALAKKAL	28/03/2008	THRISSUR
54	PARAPPUKARA	31/08/2003	THRISSUR
55	PARAPPUR	18/10/2007	THRISSUR
56	PARIYARAM	28/02/2004	KANNUR
57	PARIYARAM	10/10/2006	THRISSUR
58	PATTAMBI	19/01/2002	PALAKKAD
59	PATTIKADU	31/08/2003	THRISSUR
60	PAYYANNURTOWN	28/08/2006	KANNUR
61	PAZHASSI	Mar-01	KANNUR
62	PERLA	28/03/2009	KANNUR
63	POOMALA	13/10/2006	THRISSUR
64	POOVAR	02/08/2008	THIRUVANANTHAPURAM
65	PULAMANTHOLE	09/12/2004	MALAPPURAM
66	PULPALLY	15/12/2004	WAYANAD



67	PUTHENVELIKKARA	05/10/2006	ERNAKULAM
68	PUTHIYATHERUVU	February 2001	KANNUR
69	PUTHUR	06/03/2001	KANNUR
70	RAMANATTUKARA	11/05/2008	KOZHIKODE
71	SREEKRISHNAPURAM	12/01/2006	PALAKKAD
72	THAKAZHY	22/10/2008	ALAPPUZHA
73	THAZHEKKODE	04/01/2003	MALAPPURAM
74	THIRUNAVAYA	11/07/2008	MALAPPURAM
75	THIRUVALLUR	03.06.2008	KOZHIKODE
76	THOLAMBRA	03/02/2002	KANNUR
77	THOTTADA	07/02/2002	KANNUR
78	THRIKKARIPPUR	05/02/2005	KASARGODE
79	THRITHALA	24/01/2004	PALAKKAD
80	URUMI	24/05/2007	KOZHIKODE
81	VADAKKEKKARA	30/08/2005	ERNAKULAM
82	VADANAPPALLY	01/07/2005	THRISSUR
83	VALLUVAMBRUM	04/01/2003	MALAPPURAM
84	VARAPUZHA	23/1/2008	ERNAKULAM
85	VELLAGALLOOR	12/03/2006	THRISSUR
86	VENGOLA	24/05/2007	ERNAKULAM
87	WANDOOD	24/01/2004	MALAPPURAM
88	WEST ELERY	08/02/2007	KASARGODE

ABSTRACT OF LIST OF SUBSTATIONS AS ON 31.03.2009	
400 kV SUBSTATIONS	2 Nos.
220 kV SUBSTATIONS	15 Nos.
110 kV SUBSTATIONS	116 Nos.
66 kV SUBSTATIONS	84 Nos.
33 kV SUBSTATIONS	88 Nos.
TOTAL	305 Nos.



ANNEXURE- 4B

NEW / UPGRADED SUBSTATIONS DURING 2008 - 09

Sl. No.	Substation	Transformer Capacity Addition (MVA)	Total transformer capacity (MVA)	Date of Commissioning / charging
	110 KV			
1	Kozhinjampara (upg)		25	16.09.2008
2	Ayathil (upg)		25	28.03.2009
	33 KV			
1	Kallambalam	10	10	25.07.2008
2	Poovar	10	10	02.08.2008
3	Thakazhy	10	10	22.10.2008
4.	Koovappady	10	10	27.03.2009
5	Badiyadukka	5	5	23.03.2009
6	Perla	10	10	28.03.2009
7	Dharmadom(Thalasserry town)	10	10	10.06.2008
8	Melady	10	10	03.06.2008
9	Thiruvallur	5	5	03.06.2008
10	Ramnattukara	10	10	11.05.2008
11	Thirunavaya	10	10	11.07.2008
12	Othukkungal	5	5	31.03.2009
13	Koratty	10	10	16.01.2009
14	Chullimanoor	5	5	30.03.2009
15	Kalloorkadu	10	10	31.03.2009
16	Mannar	10	10	31.03.2009
Total			190	

ABSTRACT OF NEW / UPGRADED SUBSTATIONS DURING 2008-09	
110 KV	2 No.
33 KV	16 No.
Total	18 No.



ANNEXURE- 4C

TRANSMISSION LINES COMMISSIONED DURING 2008 - 09

Sl. No.	Name of Transmission Lines	Length in Ckt. Km	Date of Commissioning
	110kV		
1	Kundara –Ayathil DC	13	28.03.2009
2	Traction line to Traction substation, Chingavanam SC	1.578	12.05.2008
3	Kanjikode- Kozhinjampara DC	4.5	16.09.2008
	Tota	119.078	
	33 kV		
1	Punnapra- Thakazhy(DC)	11.37	22.10.2008
2	Kilimanoor- Kallambalam(SC)	15.0	25.07.2008
3	Parassala-Poovar(SC)	15.43	02.08.2008
4	Nedumangad-Chullimannoor(DC)	5.7	30.03.2009
5	Malayattoor- Koovappady(SC)	4.24	28.03.2009
6	Mulleria-Badiyaduka	12.5	23.03.2009
7	Mulleria- Perla	15.813	28.03.2009
8	Pinarayi- Dharmadom	5.5	10.06.2008
9	Mepayyur- Melady	9.45	03.06.2008
10	Vatakara- Thiruvallur	9.6	03.06.2008
11	Kinfra- Ramanattukara	9.0	11.05.2008
12	Edarikode- Thirunavaya SC	22.5	11.07.2008
13	Edarikode- Othukkunagal SC	7.5	31.03.2009
14	Chalakudy-Koratty	6.942	16.01.2009
15	Moovattupuzha- Kalloorkadu	14.00	31.03.2009
16	Chengannoor- Mannar	11.26	31.03.2009
	Total	175.805	



ANNEXURE- 4D

ENHANCEMENT OF SUBSTATION CAPACITY DURING 2008 - 09

Sl. No.	Substation	Transformer Capacity		Capacity added in MVA	Date of Commissioning
		From	To		
	110 kV				
1	Thirumala	120.5	136.5	16	31.03.2009
2	Nedumangadu	36	52	16	27.03.2009
3	Technopark	20	45	25	07.06.2008
4	Kayamkulam	20	30	10	26.03.2009
5	Perumbavoor	36	48.5	12.5	26.02.2009
6	Pinarayi	16	32	16	12.12.2008
7	Mulleria	20	36	16	13.08.2008
8	Vatakara	37.5	53.5	16	06.2008
9	Edarikode	37.5	53.5	16	15.05.2008
10	Chelari	25	41	16	18.2.2009
11	Valappad	36	42	6	11.12.2008
12	Edappon	165	167	2	28.05.2008
			Total	165.5	
	66 kV				
1	Kuthuparamba	12.6	16.3	3.7	12.12.2008
2	Mattanur	12.6	14.3	1.7	06.09.2008
3	Karunagappally	20	28	8	30.07.2008
4	Cherthala	20	30	10	26.03.2009
5	Kuravilangad	10	20	10	31.12.2008
6	Vandiperiyar	8	10.3	2.3	06.06.2008
			Total	35.7	
	33kV				
1	Neeleswaram	5	10	5	08.08.2008
2	Kodiyeri	5	10	5	18.11.2008
3	Chalissery	5	10	5	27.02.2009
			Total	15	



ANNEXURE- 8A

MATERIALS PROCURED AT HEADQUARTERS DURING 2008- 09

SL. NO.	ITEM	QUANTITY
1.	Disc Insulator (45KN, 70KN, 90 KN)	16912 Nos
2.	Single Phase Static Meters	671875 Nos
3.	Three Phase Static Meters	16000 Nos
4.	CT of various ratios with structure (220kV, 110kV, 66kV, 33kV)	339 Nos
5.	PSC Poles (7m, 8m, 9m)	22407Nos
6.	1100V Control Cable of various sizes	85Km
7.	ACSR Conductor of various types (Tr) (Dog, Moose,Wolf,Kundah)	1574 Km
8.	ACSR Conductor of various types (Dr) (Weasel, Squirrel, Raccoon)	28426 Km
9.	11kV Auto reclosure & Sectionalisers with galvanised steel supporting structure	82 sets
10.	TMT Bars of various sizes (8mmf, 10mmf, 12mmf, 16mmf, 20mmf, 25mmf, 32mmf)	1023 MT
11.	MS Rod (20mmf, 25mmf,32mmf)	889 MT
12.	Transformer Control & Relay Panel of various voltage ratings (33/11kV, 66/33kV, 110/33kV, 220/110kV, 110/11kV, 66/11kV)	70 Nos
13.	Feeder Control & Relay Panel (220kV, 110kV, 66kV, 33kV)	85 Nos
14.	Isolator with structure with various voltage ratings (220kV, 110kV, 66kV, 33kV)	139 sets
15.	Power Transformer with various ratings (5MVA, 10MVA, 12.5MVA, 16MVA)	40Nos
16.	Distribution Transformer with various ratings (100KVA, 160KVA, 250KVA)	970 Nos
17.	110V Battery charger (15A, 30A, 60A)	31 Nos
18.	110V VRLA Battery (100AH, 200AH, 400AH)	37 sets
19.	Towers of various types (220kV, 110kV, 66kV)	82 Nos
20.	Transformer Oil	825 KL
21.	Potential Transformer with structure of various ratings (33kV)	231 Nos
22.	Lightning Arrestors of various ratings (110kV, 33kV, 11kV)	1769 Nos
23.	Neutral CTs of various ratings (220kV, 110kV, 33kV)	91 Nos
24.	33kV Pin Insulator with suitable matching GI pin	13300 Nos
25.	SF6 Circuit Breaker of various ratings (220kV/110kV/66kV)	135 Nos
26.	GI Earth wire (7/3.15mm)	580 Km
27.	11kV 3 x 300 sqmm XLPE UG Cable	208 Km
28.	Cement (OPC/PPC)	6250 MT
29.	11kV VCB with CT	125 sets
30.	11kV 10 Panel set	25 No
31.	Single Phase Static Meters with LCD display	817500 Nos
32.	Three Phase Static Meters with LCD display	126000 Nos



ANNEXURE- 9A

PARTICIPATION AND POSITION ATTAINED BY THE TEAMS IN VARIOUS TOURNAMENTS.

Team	Tournament	Venue	Result
Volleyball (Women)	All India Tournament	Thriprayar	1 st
Volleyball (Women)	All India Tournament	Kodag	1 st
Volleyball (Women)	All India Tournament	Nagpur	1 st
Volleyball (Women)	All India Tournament	Chennai	2 nd
Volleyball (Women)	All India Tournament	Tirupur	2 nd
Volleyball (Women)	National League (Preliminary)	Assam	3 rd
Volleyball (Women)	Inter Club Championship	Vattoli	1 st
Basketball (Men)	All India Tournament	Periyakulam, TN	3 rd
Basketball (Men)	All Kerala Tournament	Thiruvananthapuram	1 st
Basketball (Men)	AIESCB Tournament	Trichy	1 st
Volleyball (Men)	All India Tournament	Kodag	2 nd
Volleyball (Men)	All Kerala Tournament	Vayalar	1 st
Volleyball (Men)	All Kerala Tournament	Annamanada	1 st
Volleyball (Men)	All Kerala Tournament	Thriprayar	2 nd
Volleyball (Men)	All Kerala Tournament	Dhanuvachapuram	2 nd
Volleyball (Men)	All Kerala Tournament	Karimpadam	2 nd
Volleyball (Men)	AIESCB Tournament	Solan, HP	1 st
Football	All India Tournament	Orissa	Semifinalist
Football	AIESCB Tournament	Kurukshetra	
Basketball (Women)	All Kerala Tournament	Alappuzha	1 st
Basketball (Women)	All Kerala Tournament	Kuriannoor	1 st
Basketball (Women)	All Kerala Tournament	Trichur	1 st
Basketball (Women)	All Kerala Tournament	Athirampuzha	1 st
Tennis	AIESCB Tournament	Gujarat	1 st
Tennis	State Championship	Trivandrum	1 st
Tennis	All Kerala Tournament	Trivandrum	1 st
Cycling	State Championship	Trivandrum	1 st
Cycling	National championship	Punjab	3 rd



ANNEXURE- 10A

**ABSTRACT OF TRAINING PROGRAMMES
AT TRAINING CENTRES 2008 -09**

Sl.No.	Training Centre	No. of Programmes	No. of Training. Days	No. of Participants	Expenditure (Rs)
1	RPTI, Thiruvananthapuram	134	337	3011	942083
2	RPTI, Kottayam	135	339	3586	1133644
3	RPTI, Thrissur	141	315	3703	1453286
4	RPTI, Kozhikode	109	311	3067	1179970
5	PETARC, Moolamattom.	77	307	1326	662128
6	SRCTC, VB, Thiruvananthapuram.	28	42	673	205549
	Total	624	1651	15366	5576660



ANNEXURE- 11A

**LOK ADALATHS IN RESPECT OF ELE. OPS CONDUCTED BY VARIOUS
DISTRICT COURTS FROM 01.04.2008 TO 31.03.2009**

Sl. No.	Name of District	Date on which Adalath Conducted	No. of Cases Settled	Claim Amount (Rs.)	Settled Amount (Rs)
1	VADAKARA	10.05.2008	40	8486875	363250
2	KOYILANDY	12.07.2008	14	1225781	34100
3	THALASSERRY	12.07.2008	69	27364600	1012350
4	MALAPPURAM	12.07.2008	187	17645310	2940885
5	PALAKKAD	19.07.2008	27	9268282	1096808
6	IDUKKI	21.07.2008	194	24295789	19819902
7	ALAPPUZHA	26.07.2008	4	1182761	133000
8	THALASSERRY	09.08.2008	85	28185070	1604950
9	THALASSERRY	11.10.2008	65	25150080	1629910
10	IDUKKI	30.10.2008	28	4123935	3235871
11	WAYANAD	08.11.2008	55	12341315	636825
12	PALAKKAD	19.11.2008	7	2570018	486126
13	THALASSERRY	13.12.2008	82	54475061	1552200
14	THIRUVANAMTHAPURAM	21.12.2008	18	2856798	424250
15	VADAKARA	10.01.2009	69	10512812	512900
16	KOLLAM	18.01.2009	144	19046755	3809250
17	IDUKKI	14.02.2009	130	24979166	19474304
18	KASARGOD	22.03.2009	81	315188483	1391400
19	THALASSERRY	29.03.2009	77	30556451	1292300
	TOTAL		1376	619455342	61450581



ANNEXURE- 11 B

Case details excluding Ele. OP Cases settled in Lok Adalaths

Category of cases	No. of cases pending	Cases filed during 2008-09. as on 01.04.2008	Total	Cases disposed during 2008-09	Pending cases as on 31.03.2009
Original suits in various Courts	3146	312	3458	156	3302
Ele. OPs	6318	583	6901	1081	5820
CDRFs	3650	351	4001	289	3712
MACT	197	39	236	7	229
LokAyukta	176	39	215	28	187
Human Rights Commission	241	11	252	3	249
LAR	368	32	400	35	365
Permanent Lok Adalath	23	6	29	11	18
CGRF	7	21	28	24	4
Tax Tribunal	46	29	75	0	75
High Court (original)	4895	3860	8755	3535	5220
Family Court	34	3	37	0	37
Total	19101	5286	24387	5169	19218

APPEALS

Family Court	34	3	37	0	37
High Court	540	116	656	80	576
Supreme Court	88	37	125	32	93
SCDRC	454	117	571	88	483
National Commission	8	7	15	7	8
Tax Tribunal	7	2	9	0	9
Total	1097	279	1376	207	1169


TARIFF RATES - KSEB AS 01.12.2007
ANNEXURE- 12A
ABSTRACT

Category		Unit	w.e.f 01.12.2007
LT-I(a) Domestic	Energy Charge	0-40	Ps/unit 115
		41-80	Ps/unit 190
		81-120	Ps/unit 240
		121-150	Ps/unit 300
		151-200	Ps/unit 365
		201-300	Ps/unit 430
		301-500	Ps/unit 530
		Above 500	Ps/unit 545
	Tariff minimum payable other than during the period of disconnection	Single Phase	Rs / month 30+3.00 (Duty)
		Three Phase	Rs / month 170+17.00 (Duty)
	Tariff minimum payable during the period of disconnection	Single Phase	Rs / month 30
		Three Phase	Rs / month 60
LT-I(b) (Offices of political parties approved by election Commission of India, Libraries & reading rooms, sports/arts clubs, sailing / swimming activities (CL<2000 watts))	Energy Charge	0-40	Ps/unit 155
		41-80	Ps/unit 240
		81-120	Ps/unit 280
		121-150	Ps/unit 345
		151-200	Ps/unit 405
		201-300	Ps/unit 505
		Above 300	Ps/unit 630
	Tariff minimum payable other than during the period of disconnection	Single Phase	Rs/ month 40+ 4.00 (Duty)
		Three Phase	Rs/ month 205 + 20.5 Duty
	Tariff minimum payable during the period of disconnection	Single Phase	Rs/ month 40
		Three Phase	Rs/ month 80
LT-II - Colonies supplied	Fixed Charge		Rs/ month 1990
	Energy Charge		Ps/unit 565
LT-III - Temporary	Energy Charge		Ps/unit 1200
	Daily Minimum		Rs./ kW 120
LT-IV- Industry	Fixed Charge		Rs/ kW /month 45
	Energy Charge		Ps/unit 325
LT-V - Agriculture	Fixed Charge		Rs/ kW /month 6
	Energy Charge		Ps/unit 65
LT-VI (A) -Non Domestic	Fixed Charge		Rs/ kW /month 40
	Energy Charge	Up to 500 Units	Ps/unit 385
		Above 500 Units	Ps/unit 520
LT-VI (B)-Non Domestic	Fixed Charge		Rs/ kW /month 55
	Energy Charge	Up to 500 Units	Ps/unit 450
		Above 500 Units	Ps/unit 590
LT-VI (C)-Non Domestic	Fixed Charge		Rs/ kW /month 170
	Energy Charge	Up to 500 Units	Ps/unit 675
		Above 500 Units	Ps/unit 840



LT-VI (D)-Non Domestic	Fixed Charge			NIL
	Energy Charge	Up to 100	Ps/unit	
		Above 100	Ps/unit	85
	Tariff minimum payable during the period of disconnection and Non-disconnection	Single Phase	Rs/ month	15 + 1.50 Duty
		Three Phase	Rs/ month	25 + 2.50 Duty
LT-VII (A)- Commercial	Fixed Charge	Single Phase	Rs/ kW /month	50
		Three Phase	Rs/ kW /month	100
	Energy Charge	Upto 100 Units	Ps/unit	545
		Upto 200 Units	Ps/unit	605
		Upto 300 Units	Ps/unit	675
		Upto 500 Units	Ps/unit	730
		Above 500 Units	Ps/unit	805
LT-VII (B)- Commercial	Fixed Charge		Rs/ month	30
	Energy Charge	Upto 100 Units	Ps/unit	330
		Above 100 Units	Ps/unit	520
LT-VII (C) -Commercial	Fixed Charge		Rs/ kW /month	80
	Energy Charge	Upto 1000 Units	Ps/unit	440
		Above 1000 Units	Ps/unit	590
LT-VIII - Temporary Extension	Fixed Charge		Rs/ kW / day	50
HT-I-industrial	Demand Charge		Rs./ KVA / Month	270
	Energy Charge		Ps/unit	300
HT1-Industrial	Energy Charge (applicable to Power Intensive Industries which are allocated power on or after 17-12-1996)		Ps/kWh	350
HT-II -Non Industrial/Non commercial	Demand Charge		Rs./ KVA / Month	300
	Energy Charge		Ps/unit	300
HT-II(b)- Offices of political parties approved by election Commission of India	Demand Charge		Rs./ KVA / Month	175
	Energy Charge		Ps/unit	175
HT-III - agriculture	Demand Charge		Rs./ KVA / Month	165
	Energy Charge		Ps/unit	130
HT-IV-Commercial	Demand Charge		Rs./ KVA / Month	350
	Energy Charge		Ps/unit	370
EHT - 66 kV	Demand Charge		Rs./ KVA / Month	260
	Energy Charge		Ps/unit	290
EHT - 110 kV	Demand Charge		Rs./ KVA / Month	245
	Energy Charge		Ps/unit	290
EHT	Energy Charge (applicable to Power Intensive Industries which are allocated power on or after 17-12-1996)		Ps/kWh	340
Railway Traction	Demand Charge		Rs./ KVA / Month	245
	Energy Charge		Ps/unit	290
Licensee - 11kV	Demand Charge		Rs/ KVA of billing demand / Month	270
	Energy Charge		Ps/kWh	285
Licensee - 66kV	Demand Charge		Rs/ KVA of billing demand / Month	260
	Energy Charge		Ps/kWh	275
Licensee - 110kV	Demand Charge		Rs/ KVA of billing demand / Month	245
	Energy Charge		Ps/kWh	275



ANNEXURE- 12B

SALE OF ENERGY DURING 2008-2009

	UNIT	FIXED CHARGE	VARIABLE CHARGE	TOTAL
	KWh	AMOUNT IN RUPEES		
RGCCPP - NVVN	111588750	122922870	1014200900	1137123770
BSES-NVVN	259495250	324369063	2456923523	2781292586
DIESEL ST-NVVN	20000000	39000000	155872735	194872735
KSEB-PSEB (Through NVVN)	37800000	0	201096000	201096000
GRAND TOTAL	428884000	486291933	3828093158	4314385091



Annexure-14 A

REVENUE RECEIPTS AND EXPENDITURE

a)	INCOME	Rs. In lakhs	
		2007-2008 (Provisional)	2008-2009 (Provisional)
i.	Revenue from sale of power	493405.5	509748.69
ii.	Revenue from subsidies & grants	0	0.00
iii.	Revenue Gap / Regulatory Asset	9128.65	74917.19
iv.	Other income	20179.42	25232.86
	Total	522713.57	609898.74
b)	EXPENDITURE		
i.	Purchase of power	210107.42	341722.95
ii.	Generation of power	19597.18	41495.75
iii.	Repairs and Maintenance	11626.22	13879.81
iv.	Employee cost after capitalisation	85966.16	118797.38
v.	Administration & General expenses after capitalisation	12248.57	13192.83
vi.	Depreciation & related debts (Net)	41909.25	43474.46
vii.	Interest & Finance Charges after capitalisation	32344.55	31688.95
viii.	Other Debits, Net prior period credit / (charges)	87172.22	(-) 16095.39
	Total	500971.57	588156.74
	Surplus	21742.00	21742.00
	Surplus as a percentage of the value of the Fixed Assets (Capital base) of the Board at the beginning of the year	Not Applicable	Not Applicable
	Minimum percentage of Surplus specified by the State Govt.	Not Applicable	Not Applicable
	Rate of Return as a percentage of Equity	14%	14%

BALANCE SHEET AS ON 31ST MARCH 2009

Sl. No.	Liabilities	(Rs. in Lakh)	Sl. No.	Assets	(Rs. in Lakh)
1	Capital liabilities	110036.56	1	Gross Fixed Assets	924912.01
2	Borrowings for working capital	23738.95	2	Less: Accumulated Depreciation	392410.29
3	Equity Capital	155300.00	3	Net Fixed Assets	532501.72
4	Contributions, grants & subsidies towards cost of Capital Assets	250413.68	4	Capital Expenditure in progress	117112.37
s	Reserves and Reserve Funds	93398.68	5	Deferred Costs	3644.35
			6.	Intangible Assets	68.94
6	Security Deposit from consumers	106974.81	6	Investments	2580.32
7	Other Current Liabilities	316547.46	7	Current Assets	306549.53
8	Surplus	124546.41	8	Net Subsidy netted off to be written off	120230.21
			9	Regulatory Asset	98269.11
	TOTAL	1180956.55		TOTAL	1180956.55



ANNEXURE- 15A

SCHEME-WISE INVESTMENT PROGRAMME FOR THE YEAR 2009 - 2010

Sl. No.	NAME OF SCHEME / WORK	2008-2009 (BUDGET ESTIMATE)		
		Rs.in lakhs		
		CIVIL	ELEC.	TOTAL
	A. GENERATION			
	I. H Y D E L			
	ONGOING SCHEMES			
1	KUTTIADI TAILRACE	50.00	0.00	50.00
2	NERIAMANGALAM EXTENSION	38.00	0.00	38.00
3	KUTTIADY ADDL.EXTENSION SCHEME (2 x 50)	700.00	2000.00	2700.00
4	KUTTIAR DIVERSION	45.00	0.00	45.00
5	PALLIVASAL EXTENSION	2500.00	2000.00	4500.00
	NEWSCHMES			
1	CHATHANKOTTUNADA II SHEP	150.00	50.00	200.00
2	BARAPOLE	500.00	100.00	600.00
3	SENGULAM AUGMENTATION	500.00	0.00	500.00
4	VILANGAD SHEP	150.00	50.00	200.00
5	MANIYAR TAILRACE SHEP	500.00	100.00	600.00
6	PERUMTHENARUVI SHEP	150.00	50.00	200.00
7	THOTTIAR	1000.00	200.00	1200.00
8	KARAPUZHA DAM TOE	100.00	0.00	100.00
9	KAKKADAMPOIL-II	10.00	0.00	10.00
10	SENGULAM TAIL RACE	100.00	0.00	100.00
11	ATHIRAPPALLY (TURNKEY)	1000.00	100.00	1100.00
12	KAKKADAMPOIL-I	10.00	0.00	10.00
13	ANAKKAMPOIL	100.00	0.00	100.00
14	MANKULAM	150.00	50.00	200.00
15	ACHANKOVIL	160.00	20.00	180.00
16	CHINNAR	150.00	50.00	200.00
	COMPLETED SCHEMES			
1	CHEMBUKADAVU I	8.00	3.50	11.50
2	CHEMBUKADAVU II	6.00	0.00	6.00
3	URUMI I	20.00	3.50	23.50
4	URUMI II	2.00	0.00	2.00



5	WATCH TOWER MOOLAMATTOM SWITCHYARD	0.00	0.00	0.00
6	TRANSFORMER-IDUKKI POWER STATION	0.00	0.00	0.00
7	LOWER MEENMUTTY	0.00	0.00	0.00
8	KAKKAD	0.00		0.00
9	LOWER PERIYAR	223.00	0.00	223.00
10	MATTUPETTY	2.08	0.00	2.08
11	PORINGALKUTHU LEFT BANK EXTENSION	25.00	15.00	40.00
12	KUTTIADI EXTENSION SCHEME	0.00	93.00	93.00
13	VAZHIKKADAVU DIVERSION	0.00	0.00	0.00
14	KUTTIADI AUGMENTATION	240.00	0.00	240.00
15	VADAKKEPUZHA DIVERSION	16.00	0.00	16.00
16	IDUKKI(Providing CCTV at PH)	0.00	32.00	32.00
	TOTAL of I	8605.08	4917.00	13522.08
II.	T H E R M A L			
1	BRAHMAPURAM	0.00	535.00	535.00
2	KOZHIKODE	0.00	382.00	382.00
	TOTAL of II	0.00	917.00	917.00
III.	WIND & NON -CONVENTIONAL			
1	RAMAKKALMEDU	500.00	2000.00	2500.00
2	PEECHI	150.00	50.00	200.00
3	ADYANPARA	500.00	200.00	700.00
4	PASSUKADAVU SHEP	100.00	0.00	100.00
5	POOZHITHODE SHEP	200.00	50.00	250.00
6	KANDAPPANCHAL SHP	100.00	0.00	100.00
7	PATHAMKAYAM SHP	100.00	0.00	100.00
	Total of III	1650.00	2300.00	3950.00
IV.	RENOVATION & MODERNISATION			
	EXISTING HYDRO-STATIONS			
1	NERIAMANGALAM	0.00	0.00	0.00
2	PPSHUP	0.00	5.00	5.00
3	SABARIGIRI	0.00	2500.00	2500.00
4	EDAMALAYAR	0.00	0.00	0.00
5	IDAMALAYAR- 110/66 kV SUB STATION	0.00	25.00	25.00
6	PORINGALKUTHU	0.00	325.00	325.00
7	SHOLAYAR	0.00	75.00	75.00
	TOTAL of IV	0.00	2930.00	2930.00
V.	SURVEY AND INVESTIGATION & ENVIRONMENTAL STUDIES:	240.57	0.00	240.57



	Total of V	240.57	0.00	240.57
VI.	REVAMPING SEISMIC NETWORK IN IDUKKI REGION	117.00	0.00	117.00
	TOTAL OF VI	117.00	0.00	117.00
VII.	RESEARCH AND DEVELOPMENT (Civil)			
1	Dam Safety works	1522.60	0.00	1522.60
2	R & D - CIVIL including Dam Safety Studies	219.55	0.00	219.55
	TOTAL OF VII	1742.15	0.00	1742.15
VIII.	ADMINISTRATIVE COMPLEXES			
1	BUILDINGS UNDER CONSTRUCTION	265.00	0.00	265.00
2	CONSTRUCTION OF NEW ELECTRICAL SECTION OFFICES	20.00	0.00	20.00
	TOTAL of VIII	285.00	0.00	285.00
IX.	CIVIL CIRCLE, PALLOM			
1	OTHER CIVIL WORKS	50.00	0.00	50.00
2	FABRICATION WORKS IN CM DIVISION	9500.00	0.00	9500.00
3	UPGRADATION OF MECHANICAL FACILITIES AT PALLOM	35.00	0.00	35.00
	TOTAL of IX	9585.00	0.00	9585.00
X	COAL BASED POWER PROJECT	2000.00	0.00	2000.00
XI	MISCELLANEOUS WORKS			
1	Rehabilitation of Panniyar Power House	200.00	400.00	600.00
2	Rebuilding of U#3 of Sabarigiri PH	0.00	600.00	600.00
3	Rebuilding of U#4 of Sabarigiri PH	0.00	2000.00	2000.00
4	Idamalayar-special maintenance of Generating units(Renovation)	0.00	1280.00	1280.00
5	Neriamangalam Yard Extension	0.00	100.00	100.00
6	Sengulam 110 KV Substation control room shifting	0.00	60.00	60.00
7	Maintainance of Pilot Projects	4.70	0.00	4.70
8	Transportation charges under B&S Angamaly	335.25	0.00	335.25
9	Idamalayar Protective Works	64.75	0.00	64.75
	TOTAL OF XI	604.70	4440.00	5044.70
	TOTAL GENERATION (I to XI)	24829.50	15504.00	40333.50
B.	TRANSMISSION			
1	Connected lines of 400 kV S/s	0.00	0.00	0.00
2	220 KV Substations and connected lines	0.00	8850.00	8850.00
3	110 KV Substations and connected lines	0.00	15000.00	15000.00
4	66 KV Substations and connected lines	0.00	6000.00	6000.00
5	33 KV Substations and connected lines	0.00	3500.00	3500.00
6	Other works	0.00	1000.00	1000.00
7	Capacitor installations	0.00	0.00	0.00



	Renovation & Modernisation			
a	Modernisation of Load Despatch	0.00	184.00	184.00
b	Relay	0.00	386.10	386.10
c	Modernisation of Communication Systems	0.00	1753.01	1753.01
d	Others	0.00	0.00	0.00
	TOTAL TRANSMISSION	0.00	36673.11	36673.11
C.	DISTRIBUTION			
1	Normal	0.00	25600.00	25600.00
2	People's Participation Schemes	0.00	3100.50	3100.50
3	APDRP (Additional Central Assistance to APDRP)	0.00	13306.00	13306.00
4	RGGVY	0.00	9037.00	9037.00
5	Capital City Development	0.00	50.00	50.00
6	Tsunami Projects (TRP)	0.00	1200.00	1200.00
7	Tsunami Emergency Assistance Project	0.00	0.00	0.00
8	Improvement of Quality supply in Municipalities & Corporations	0.00	50.00	50.00
9	High Voltage Distribution System	0.00	50.00	50.00
10	Reconductoring of Old LT Lines	0.00	100.00	100.00
11	Power Factor Compensation Using Shunt And Series Capacitance.	0.00	10.00	10.00
12	Introducing Automatic Voltage Boosters in Select Area of Low Voltage As an Interim Measure	0.00	10.00	10.00
13	TCMS	0.00	500.00	500.00
14	Automatic Meter Reading System	0.00	800.00	800.00
15	Infra Structure for Improving Customer Care	1000.00	0.00	1000.00
16	Special Scheme for providing Service Connections to Socially and Economically Backward Sections.	0.00	2500.00	2500.00
a	Service connection to SC/ST families	0.00	2000.00	2000.00
b	Service connection to BPL families	0.00	750.00	750.00
	TOTAL DISTRIBUTION	1000.00	59063.50	60063.50
D	Institutional Development Programme	0.00	390.00	390.00
E	Research & Development (Ele.)	0.00	50.00	50.00
F	IT Enabled services	0.00	200.00	200.00
G	Others	0.00	0.00	0.00
	GRAND TOTAL (A to G)	25829.50	111880.61	137710.11



ANNEXURE- 17A

APTS ACTIVITIES & ASSESSMENT DURING 2008-09.

Month	No. Of Inspections	Irregularities	No Of Theft	Units Assesses For Theft	Theft Assessment (in Rupees)	No. Of Short Assessment	No. Of Malpractices	Total Units Assessed	Amount Assessed (in Rupees)	Amount Realised (in Rupees)
Apr-08	1518	277	94	487218	5405369	47	117	1496713	12521894	10689005
May-08	1422	216	54	575909	9032716	71	76	2126543	21563025	9540268
Jun-08	1182	166	43	166267	2052885	52	58	1512401	16209808	8670020
Jul-08	1425	236	69	349044	4149237	53	98	1403504	26081874	10591170
Aug-08	1392	238	36	100715	1423375	68	119	2647537	21677438	7963138
Sep-08	1293	269	31	109294	1809602	60	144	2957109	24466337	14909687
Oct-08	1178	219	24	63946	1307781	48	123	1668770	33347045	13354284
Nov-08	1369	258	21	124543	1522664	84	116	3465824	34182410	14646518
Dec-08	1253	221	20	216763	1314352	54	101	2467658	30571618	16653210
Jan-09	1390	276	45	360064	2858823	47	129	2385539	26431011	25554566
Feb-09	1158	211	33	162166	1601980	48	88	1774035	26036000	20808779
Mar-09	1212	195	34	148538	1294086	34	86	2627513	22704796	36294509
Total	15792	2782	504	2864467	33772870	666	1255	26533146	295793256	189675154