



THIRTEENTH KERALA LEGISLATIVE ASSEMBLY

**COMMITTEE
ON
PUBLIC UNDERTAKINGS
(2014-2016)**

EIGHTY SEVENTH REPORT

(Presented on 2nd July, 2015)

**SECRETARIAT OF THE KERALA LEGISLATURE
THIRUVANANTHAPURAM
2015**

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On

**The Action Taken by Government on the Recommendations contained in the
Eleventh Report of the Committee on Public Undertakings (2001-04)
relating to Kerala State Electricity Board based on the Report
of the Comptroller and Auditor General of India for the year
ended 31st March 1996 (Commercial)**

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INTRODUCTION

I, the Chairman, Committee on Public Undertakings having been authorised by the Committee to present the Report on their behalf, present this 87th Report on the Action Taken by Government on the recommendations contained in the 11th Report of the Committee on Public Undertakings (2001-04) on the working of the Kerala State Electricity Board based on the Report of the Comptroller and Auditor General of India for the year ended 31st March, 1996 (Commercial).

The Statement of Action Taken by the Government included in this Report was considered by the Committee constituted for the year (2014-16).

This Report was considered and approved by the Committee at the meeting held on 19-6-2015.

The Committee place on record their appreciation of the assistance rendered to them by the Accountant General (Audit), Kerala, in the examination of the statements included in this Report.

Thiruvananthapuram,
2nd July, 2015.

K. N. A. KHADER,
Chairman,
Committee on Public Undertakings.

REPORT

The Report deals with the Action Taken by Government on the recommendations contained in the Eleventh Report of the Committee on Public Undertakings (2001-04) relating to Kerala State Electricity Board, based on the Report of the Comptroller and Auditor General of India for the year ended 31st March, 1996 (Commercial).

The Eleventh Report of the Committee on Public Undertakings (2001-04), was presented to the House on 1st July, 2002. The Report contained 32 recommendations and the Government furnished replies to all the recommendations. The Committee (2014-16) considered the replies received from Government at its meeting held on 23-12-2014.

The Committee accepted the replies to the recommendations without any remark. These recommendations and their reply received from Government are included in this report.

REPLIES FURNISHED BY GOVERNMENT ON THE RECOMMENDATIONS OF THE COMMITTEE WHICH HAVE BEEN ACCEPTED BY THE COMMITTEE WITHOUT ANY REMARKS

Sl. No.	Para No.	Department concerned	Conclusions/Recommendations	Action Taken by Government						
1	2	3	4	5						
1	13	Power	<p>The Committee observe that out of the total power generated, about 10 to 15% is being lost due to pilferage or theft. But the Kerala State Electricity Board has not taken any concrete measures to prevent the loss of power through theft. No data as to the power lost due to theft, the total number of theft cases booked, the number of cases in which punishment were awarded, the number of cases pending for action etc. is available with the Board. It is surprising to note that no study has so far been conducted to identify and categorise the consumers who habitually indulge in power theft. The Committee therefore recommend that a detailed study should be conducted and deterrent measures should be evolved to curb power theft. The Action Taken in this regard should be intimated to the Committee.</p>	<p>For prevention of theft of energy, Anti Power Theft Squad (APTS) has been functioning in Kerala State Electricity Board under the control of an Inspector General of Police (Vigilance & Security).</p> <p>Three Anti Power Theft Regional Units have been formed at Thiruvananthapuram, Ernakulam and Kozhikode. The constitution of the Three Regional Units is as shown below:</p> <p>THIRUVANANTHAPURAM</p> <table border="1"> <tr> <td>APT Squad, Trivandrum</td> <td>With jurisdiction over Trivandrum and Kollam Districts</td> </tr> <tr> <td>APT Squad, Kottayam</td> <td>With jurisdiction over Pathanamthitta and Kottayam</td> </tr> </table> <p>ERNAKULAM</p> <table border="1"> <tr> <td>APT Squad, Ernakulam</td> <td>With jurisdiction over Alappuzha and Ernakulam</td> </tr> </table>	APT Squad, Trivandrum	With jurisdiction over Trivandrum and Kollam Districts	APT Squad, Kottayam	With jurisdiction over Pathanamthitta and Kottayam	APT Squad, Ernakulam	With jurisdiction over Alappuzha and Ernakulam
APT Squad, Trivandrum	With jurisdiction over Trivandrum and Kollam Districts									
APT Squad, Kottayam	With jurisdiction over Pathanamthitta and Kottayam									
APT Squad, Ernakulam	With jurisdiction over Alappuzha and Ernakulam									

APT Squad, Vazhathope	With jurisdiction over Idukki
APT Squad, Palakkad	With jurisdiction over Thrissur and Palakkad
KOZHIKODE	
APT Squad, Kozhikode	With jurisdiction over Kozhikode and Malappuram
APT Squad, Kalpetta	With jurisdiction over Wayanad
APT Squad, Kasargod	With jurisdiction over Kannur and Kasargod
<p>The Executive Engineers, in-charge of the regional units of APTS are authorised to check the installations and metering equipments of HT/EHT consumers under his unit, assess the penalty on consumers, who commits theft or other irregularities, co-ordinate the work of APTS Squads working under him and watch the remittances made by the consumers who were assessed by the APTS for Power Theft or other irregularities. The Assistant Executive Engineers, in-charge of APTS are authorised to check the installations and metering equipments of all the</p>	

1	2	3	4	5
				<p>LT consumers, under their jurisdiction, find out theft and other irregularities, propose penalty on consumers booked for theft and other irregularities and to watch the remittances made by the consumers assessed by the APTS.</p> <p>The following instructions and recommendations have been made for effective prevention of power theft and other irregularities:</p> <ul style="list-style-type: none"> • The terminals of transformers should not be kept bare to avoid the possibility of illegal abstraction of electrical energy. • Ensure 100% sealing of energy meters. • C.T should be kept in proper enclosure with proper sealing. • Electro Mechanical meters should be fixed correctly with protective cover to avoid frequent struck up. • The metering arrangement should be convenient for easy access to the inspecting officers. • Avoid proximity to OHLT lines to prevent easy access for illegal abstraction of energy.

- Field Officers must be enthusiastic to watch the consumers having disproportionate consumption compared to their connected load.
- A meter sealing register especially in the case of consumers having connected load of 10 KW and above should be maintained.
- The existing Electro Mechanical meters are to be replaced with Static type meters expeditiously.

The APTS detected 3964 cases of malpractices including 213 cases of power thefts during the last 3 years. 513 MU of electric power was assessed and penalty worth Rs. 26.79 crore levied on the erring consumers and Rs. 9.24 crore realized.

In theft cases, punishment includes disconnection of power supply, apart from penal assessment. Steps are also taken for criminal prosecution wherever necessary. The local police is responsible for prosecuting and getting the accused sentenced in cases of power theft under Section 39 and 44 of Indian Electricity Act. It is practically difficult to get the exact number of cases in which punishments were inflicted on such prosecution cases.

1	2	3	4	5
				<p>The Vigilance Division conducted Section wise study of LT consumers and identified consumers having a consumption of 2000 units or more. These were further classified by linking consumption with connected load. The relevant details in sealed covers were sent to APTS Inspectors to conduct surprise checks. District wise surprise checks of high consumption LT consumers are going on all over the state. In the next stage, it is proposed to check the consumers having connected load above 40 KW.</p> <p>In a surprised swing of searches, called Operation Vajra 11 teams inspected (November 2002) 180 HT/EHT consumers of the state. It was a joint operation by APTS and Vigilance Officials of the KSE Board, Vigilance & Anti Corruption Bureau and the Chief Electrical Inspectorate and assessed a revenue of Rs. 10.76 crore. Power Thefts were detected in several cases and criminal cases were registered.</p> <p>All Deputy Chief Engineers have been directed to carry-out sealing of consumers meters in a systematic manner. Locking of AB switches were</p>

also insisted. Considering the need to identify and categorise the consumers who habitually indulge in power theft, all the Deputy Chief Engineers have been requested to conduct energy audit on selected feeders and transformers.

Disciplinary action and transfers are effected when line staff are found involved in power theft and other malpractices. Deputy Chief Engineers of Electrical Circle and Transmission Circles have been addressed to correct anomalies found in the metering systems of erring consumers and of those where malpractices are likely to occur.

The faulty meters are being replaced in a phased manner. Now Board purchase meters with tamper proof features in order to prevent theft of energy 421802 faulty meters were replaced during the year 2002-03. As on 31st March, 2003, there exists 799332 faulty meters in the system. It is proposed to replace all electro mechanical meters with electronic meters during 2003-04 in three Circles and seven towns where Accelerated Power Development and Reforms Programme (APDRP) is being implemented.

1	2	3	4	5
				<p>The reading of the LT consumers are taken at least once in two months and the readings of HT meters are taken once in a month. The Board is also insisting the officers to take check readings.</p> <p>Energy audit to reduce system losses by metering all 11 KV and EHT feeders was completed in October 2001. Metering of all distribution transformers is proposed to be completed under the APDRP Scheme for energy auditing. Computerization in billing and accounting in 8 sections in town were completed and works in other 80 sections are in progress.</p>
2	14	Power	<p>The Committee observe that the T & D loss as assessed by the KSEB does not reflect the actual position. There is no effective system in the Board for computing the actual energy sold in the State. At present the Board is arriving at</p>	<p>T & D loss is now calculated appropriately based on actual energy sold. Board has been taking concerted and expeditious action to replace the faulty meters in a phased manner. About 4 lakh meters have already been replaced during 2002-03. Replacement of all the faulty meters</p>

<p>with tamper proof static energy meters is in progress under APDRP Scheme. Board is now purchasing tamper proof static meters which are more accurate and guaranteed for satisfactory performance for 10 years. Such meters ensure accurate readings and prevention of theft of energy.</p>	<p>an assumed figure by taking into account the connected load of the consumers. Energy consumption over and above the connected load of the consumers especially those of the NPG consumers and consumers having faulty meters is being undetected and unaccounted for. Incidental to this there is every possibility of the consumer being either over billed or short billed. And it is often seen that consumers are forced to pay huge amount by way of electricity charges in lump sum for no fault of theirs. The Committee therefore recommend that the action to replace the faulty meters in a phased manner should be speeded up and faulty meters should be replaced at the earliest. The Committee recommend that the Board should see that regular meter readings of both the LT and HT consumers are being taken and any lapse in this should be dealt with seriously.</p>
<p>Lapses in taking meter reading as per schedule are being dealt with seriously. The Board is also insisting upon the supervisory officers to take check readings.</p>	
<p>The Board shall take appropriate action wherever complaints regarding over billing/short billing are noticed.</p>	

1	2	3	4	5
3	15	Power	<p>The Committee note with displeasure the slackness on the part of the Board in obtaining the details of energy sold from the various billing units and desire that action should be taken against the supervisory authorities responsible for this. In future, the Board should assure that the billing units furnish the required details without delay. The Committee further recommend that a restructuring of the entire system of transmission and distribution of power by the Kerala State Electricity Board should be done. For this a detailed study to analyse the various factors that contribute to the high percentage of transmission and distribution loss should be conducted and suitable schemes should be evolved and implemented at the earliest so that the T & D loss could be brought down to the</p>	<p>It is submitted that at present the T & D loss is calculated on the basis of data on energy sold obtained from the field officer.</p> <p>Action is now in progress to computerize the billing. There is a scheme under APDRP for installation of LT capacitors and meters on distribution transformers and the following are the main activities intended to reduce the T & D losses:</p> <p>(a) Reduce LT/HT ratio from 6:1, by constructing 4000 km. 11 KV line before 31-12-2004.</p> <p>(b) Inserting transformers on the existing 11 KV lines as far as possible where LT load is above 100 amps.</p> <p>(c) Duplication of existing heavily loaded 11 KV feeders for first 5 km. where load is above 150 amps.</p> <p>(d) Replacement of all faulty meters with tamper proof static energy meters.</p>

<p>(e) Conduct of energy Audit and take remedial action.</p>	<p>stipulated level. The Committee are aggrieved to note that even though studies on this line had been undertaken in the past with the help of Asian Development Bank and a Canadian Company called SNC Lavelline, no efforts to implement schemes based on these studies were taken. The Committee deprecate the laxity with which the Board handles such matters and caution that if concrete measures to minimize the T & D loss are not resorted to, the Board is sure to sail into more rough weather.</p>	
<p>(f) Installation of shunt capacitors at EHT substations (350 MVAR). And</p>		
<p>(g) Commissioning of one 400 KV Substation (by PGCIL) 4 Nos. of 220 KV Substations, 14 Nos. 110 KV Substations, 5 Nos. of 66 KV Substations and 54 Nos. of 33 KV Substations.</p>		
<p>In each circle, the Transmission & Distribution wings have a system of accounting of energy and assessing their losses.</p>		
<p>On account of large scale replacement of faulty meters, intensification of system improvement works, energy audit, prevention of theft, metering per cent billing, etc., there has been two per cent reduction in T & D loss. The loss of about 32% in 2001-02 has been reduced to 30% in 2002-03 and is expected to be around 28% in 2003-04.</p>		

1	2	3	4	5
4	16	Power	<p>The Committee note with displeasure that the Kerala State Electricity Board had failed to avail the assistance offered by the World Bank for a Scheme envisaged to reduce the T & D loss. The reasons for abandoning the strengthening of 517 km. Line does not seem convincing. The Committee learn that the work on installing capacitors is progressing on a very slow pace. The progress in recondition work of 11 KV lines is also not satisfactory. The Committee feel that the Board is not making any earnest effort to tap and utilize the assistance offered by outside agencies. At a time when the Board is finding it difficult to tide over the financial crisis, wasting of such financial aid to improve the system is regrettable.</p>	<p>The requirement of shunt capacitor in Kerala System by 31-3-2003 is 939 MVAR and 694 MVAR is already available in the system. Contract has been entered into for the installation of additional 350 MVAR during 2003-04. Additional to 11 KV lines and reconditioning of 11 KV lines have been taken up in large scale under the APDRP. The Board will not hesitate to avail any assistance for reducing T & D loss and improving financial health of the Board.</p>
5	17	„	<p>The Committee desires that a detailed report on the progress of the recondition work on 11 KV line be furnished to them.</p>	<p>KSE Board has always given due importance to T & D loss reduction measures as part of system improvement works.</p>

So also the details regarding the works done, the works pending, the expected dates of their completion, the total expenditure as on date and the anticipated expenditure for the pending works should be furnished to the Committee.

During 1992 the Board prepared a Scheme to strengthen 11 KV network at a cost of Rs. 704 lakh. The work included duplicating of feeders, reductoring, changing of copper conductors, etc., and construction of 517 km. (500 km. overhead + 17 km. underground) of 11 KV line. The work was partially done. It could not be completed due to non availability of loan from Power Finance Corporation (PFC). The estimated outlay was Rs. 704 lakh scheduled to be financed by Power Finance Corporation. But Power Finance Corporation did not accept the proposal on the ground that KSE Board had not complied with OFAP (Operation Financial Action Plan) prepared by them. As per the OFAP the funds received from Power Finance Corporation have to be utilized in accordance with the operational (technical) and financial action plans formulated by them. This was not acceptable to the Board. Therefore, it was decided to finance the project by using internal resources of the Board. However, owing to financial constraints, much progress could not be achieved as envisaged in the

1	2	3	4	5
				<p>proposed scheme. The scheme was therefore closed after spending Rs. 313.94 lakh with an achievement of 398.18 km. (383 km. overhead and 15.18 km. UG) 11 KV line.</p> <p>Then, a new scheme was prepared by the Board for 470.5 km. (452 km. overhead + 18.5 km. UG) of 11 KV network at a cost of Rs. 861 lakh. The main items of work proposed were reductoring of overloaded transmission, sub transmission and distribution lines, VAR compensation in HT & LT system, modification of 11 KV feeders and introduction of energy audit. This also did not materialize and the 11 KV works were subsequently carried out as part of the system improvement works in general. Fund has been earmarked for the whole system improvement work and not exclusively for the 11 KV work.</p>

The overall targets and achievement in respect of 11 KV lines from 1993-94 to 2004-05 is furnished below:

Year	Target (km.)	Achievement (km.)
1993-94	1100	899
1994-95	1500	1054
1995-96	3000	1420
1996-97	1500	694
1997-98	1500	583
1998-99	1500	1007
1999-00	1500	917.18
2000-01	1500	1246
2001-02	1500	790
2002-03	2000	609
2003-04	2000	1269
2004-05	2000	955
2005-06	2000	

1	2	3	4	5
				In the past, the achievement fell short of the targets due to fund constraint, inadequate supply of poles, etc. Now, with the introduction of schemes like APDRP and Rajeev Gandhi Gramteen Vidyaauhikaran Yojana, it is expected that the target will be achieved in the current year.
6	18	Power	The Committee also recommend that all pending work in system improvement should be completed at the earliest. New schemes which will help to bring down the T & D loss to the desired level, should be implemented without any delay.	All efforts have been made to complete the ongoing system improvement works in time. In order to improve the distribution system, construction of 11 KV lines, installation of new transformers and upgradation of existing transformers, reconditioning of HT lines etc. are being executed under the newly introduced APDRP.Scheme.
7	19	"	The Committee recommend that energy audit should be conducted throughout the State to identify the areas where T & D	Action has already been initiated to conduct energy audit throughout the state. All connections are metered. Energy meters have been installed on

loss is maximum and measures to plug this loss should be taken immediately.	<p>selected distribution transformers in different areas and T & D loss assessed. Energy meters will be provided to distribution transformers in all areas in a phased manner. Field studies have already been conducted on all 11 KV feeders in Thiruvananthapuram District and a loss of 30.9% has been found. Similar studies were conducted in other Districts, Circle wise data of energy received and sold are collected and compiled monthly to identify the circles where the energy loss is higher. Deputy Chief Engineers have been directed to carryout energy audit of dedicated feeders by comparing the readings in the substation and consumers' end. On completion of computerizations and installation of meters in the distribution transformers, energy audit in large scale would be possible. The Board is taking all efforts in this direction.</p>

1	2	3	4	5
8	20	Power	The Committee desire to be informed whether the Internal Audit Wing of the Board had conducted any study on the T&D loss and if so the details of the same should be forwarded to the Committee.	It is submitted that the Internal Audit Wing has not conducted any study on T&D loss. But the technical wing/field offices have conducted a number of studies to ascertain the T&D losses.
9	30	"	The Committee would like to be informed whether the 77 transformers have since been rectified/replaced during the warranty period free of cost.	All the failed transformers have been rectified by the firm within guarantee period at free of cost.
10	31	"	The Committee find that the Kerala State Electricity Board has arrived at a conclusion that, the transformers had failed during the guarantee period due to overloading without conducting any joint verification by the engineers of the Board and the representatives of supplier firms. Hence the inference of the Board that the transformers had failed due to overloading cannot be taken at facevalue. The expenditure of 15.37 lakh by way of repair	As per the purchase order and technical specification, the firm was to carry-out the tests and forward their test certificates for approval. The test arranged at the works of M/s Vijay was carried out by the consultant of SNC and an engineer from the office of the Chief Engineer (World Bank Projects). It is not possible to carryout all the tests on all the ordered quantity of transformers and usually random selections are done from the ordered quantity. The test was done by the firm in the

charges is therefore, not justifiable. So also, the expenditure of Rs. 3.53 lakh towards transportation charges of faulty transformers is not justifiable because, if the Board had conducted a joint verification at its own premises the faulty transformers which were beyond repair need not have been shifted to the repairing agency.

presence of the officers and witnesses on selected transformers only. After that, the firm forwarded their test reports of selected transformers for approval. In the meantime, the firm had to carry-out the test for all the ordered transformers and forward the test reports for approval. Based on the approval and the issue of despatch clearance, the firm supplied the transformers before 31-12-1994.

The failure rate does not depend upon the test alone. The failure may be due to the defects in transportation, change in weather condition, short circuits etc. In case the transformers failed due to reasons such as overloading/lighting the firm is not liable to repair those transformers free of cost. Only under such conditions, the repairs are carried out at the cost of the Board. The guarantee for the repaired transformers is limited to the spare parts replaced by the firm and not for the complete transformers. Sometimes, the repaired transformers fail within the guarantee period but not on the items replaced.

1	2	3	4	5
				At the TMR Division, Shomur, all transformers are opened and examined before sending for repair. Those found irreparable are not usually sent to the firm for repair. But if internal defects of core along with the damaged winding are noticed during detailed examination of transformers at the repair site, they are to be declared as irreparable. Only in respect of such cases, transportation charge incurred was unavoidable.
11	32	Power	<p>The Committee note that at present there is no prescribed procedure in the Board for scrapping of transformers. An extra expenditure of Rs. 389.80 lakh was sustained by the Board due to outright scrapping of 1098 transformers without ascertaining their reparability. The Committee also find that even regarding the scrapped transformers the amount of copper, aluminium and lamination as</p>	<p>A transformer is considered for scrapping only when it is found beyond repair, unserviceable and not usable anywhere in KSEB i.e. its core and coils fully in damaged condition. Due to climatic conditions a huge number of transformers failed due to lightning. In such transformers core and coils were seen fully or partially burned or in melted condition. In such cases the weight of core and coils would not tally with that given on the name plate of the transformers.</p>

		<p>specified in the name plates were not obtained and the Board has lost Rs. 8.86 lakh in this regard. The Committee observe that no investigation was conducted by the Board to find out the reasons for the shortage.</p>	<p>Departmental repair in TMR workshops was done by using both the spares retrieved from old and unusable transformers and new spares purchased from manufacturers. When a transformer is considered for scrapping all the good and healthy spares such as coils, rod, bushings, valves, nuts, packing, even sealing washers etc., are retrieved from it and used for repair works. No replacements of the above items i.e. removed items from the transformers were put back into it. Hence there can be shortage in weight of scrapped items such as coils etc. In such transformers weight of scrap coils; lamination will not tally with that given on their nameplate. This shortage is due to the removal of coils for future use of repair works.</p> <p>Assessment of weight of scrap items from an unserviceable transformer should be equivalent to that in a new one (as mentioned in nameplate) is not a realistic method. The weight of core and winding written on the nameplate of a transformer</p>
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1	2	3	4	5
<p>includes weight of winding (made of copper or aluminium), lamination, core and frames (made of iron channels), end tie bolts of various sizes (made of iron), the separators and other insulating materials. Hence while scrapping, coils and laminations are separated from the core and winding unit and weighted separately. Other items are left unattended and segregated in the site of scrapping. While going through the store ledger during 1993-94 and 1994-95 about 8702 kg. of galvanized and other iron materials comprising of bolt and nut etc., are taken into account from site and sold to M/s SILK. Materials such as bolt and nut, piece of iron which is from the core and winding nut of scrapped transformers.</p> <p>No further physical verification can be done for the items auctioned during the period up to 1994 since there is no records available for that period and items are fully lifted at that period itself.</p>				

			<p>Almost as in the previous years, TMR Pallom could have done repairing on an average number of transformers 35 to 40 per month of various capacities, i.e. an average of 420 to 480 Nos. per year. About 75% of spares used in these transformers are old and healthy spares retrieved from the faulty transformers received here. By using this system repairing cost can be considerably reduced for the departmental repair. Hence the loss due to the lesser weight of scrap materials such as coils etc. can be compensated by the profit got from the reduction of repair cost. Hence the calculation based on the shortage of scrap materials as said in the Public Undertaking Committee report may please be reconsidered and the above reply may be admitted.</p>
12	33	Power	<p>The Committee therefore recommend that in addition to streamlining purchase, distribution and utilization of transformers, a uniform procedure for scrapping of irreparable transformers should also be</p> <p>At the TMR Divisions of KSEB, all faulty transformers are opened and examined before sending for repairs. The transformers which can be repaired in the TMR workshop without checking the windings (which is possible only</p>

1	2	3	4	5
			<p>evolved and implemented in all the divisions of the Board. Since maintenance and repair of the transformers is regular phenomena in the Board, the feasibility of creating these facilities in the Board itself should be considered. If this is not found feasible at least the facilities to determine the repair ability of the faulty transformers should be set-up in the workshops of the Board so that transportation charges of irreparable transformers could be avoided.</p>	<p>after removing the laminations on one side of the core) is repaired there itself utilizing the available facilities. Rest of the faulty transformers whose repairs cannot be carried out at TMR workshop due to various limitations are sent to private agencies where more detailed inspection is done at their workshop. This is done by checking the windings after removing the laminations on one side of the core. Only at this stage, it can be ascertained whether such faulty transformers sent outside TMR workshop is repairable or not. Removing the lamination and the windings require a lot of labour which is not available at TMR workshop. A lot of space and time is required for carrying out this work and there is not much space available in TMR workshop. Those transformers which are found irreparable are returned to TMR Division. The transportation charges in this case cannot be avoided.</p>

<p>The procedure followed at present in Kerala State Electricity Board for scrapping of distribution transformer is as follows:</p> <p>List of faulty transformer prepared by A.E. (Store) TMR is submitted to the Executive Engineer.</p> <p>Based on this list, Executive Engineer direct the A.E. (Transformer) to find scrap and unserviceable transformer among the faulty transformers.</p> <p>The A.E. who receives the faulty transformers from the A.E. (Store) examines the transformer in detail. The faulty transformers are repaired and reused, if the repair is economical. If the repair is above a certain level of damage, the transformer has to be scrapped. The transformer scrapped and proposed for disposal are above that level of damage. The list of scrapped transformer, prepared and certified by the A.E. (Transformer) is submitted to the Executive Engineer through the concerned AEE.</p>			
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1	2	3	4	5
				<p>The EE directs the A.E. (Store) to receive the scrapped transformer from the AE (Transformer) and prepare a survey report.</p> <p>The A.E. (Store) prepares a survey report and submits to the Executive Engineer.</p> <p>The Executive Engineer presents the Survey Report before the Scrap Disposal Committee.</p> <p>The Committee examine the scrapped transformer physically and assess the quantity.</p> <p>The base rate, tender condition, tender notice, tender agreement etc. will be decided by the Scrap Disposal Committee.</p> <p>The auction process and the disposal are done by the EE in the presence of the Scrap Disposal Committee.</p>
13	34	Power	<p>The Committee also desire to be furnished with the following:</p> <p>(1) The agreement with M/s Vjay Electricals, Hyderabad regarding the repair of 177 Nos. of transformers.</p>	<p>It may kindly be noted the total number of faulty transformers were only 167 Nos. and not 177 Nos. as stated in the recommendation of Honourable CoPU.</p>

The split up details of faulty transformers are as follows:

Sl. No.	Particulars	Order Quantity	Good/ installed	Faulty Transformers
1	160 KVA- OH Type	250	212	38
2	160 KVA- Box Type	100	14	86
3	500 KVA- Box Type	50	7	43
Total		400	233	167

The copy of the agreement No. 4/2002/03 dated 21st October, 2002 executed with M/s Vijay Electricals, Hyderabad for the Repair and conversion of 160 KV Cable Box Type Distribution transformer to Bushing type is attached as Annexure I.

It was a general statement in the earlier reply that the reasons for failure of transformers could be overload, low level of oil and lack of maintenance as well as manufacturing defects.

(2) The report of the company which certified that the failure of transformers during the guarantee period was due to overload, low level of oil and lack of maintenance; the details of the officer (authority) who certified that the 74 transformers were beyond repair.

(3) The reasons for the shortage of Copper, Aluminium, and laminations in the 540 transformers which were scrapped in TMR Division Pallom.

1	2	3	4	5
				<p>As all the transformers failed during guarantee period were rectified by the company free of cost, it is clear that the failure of transformers was due to manufacturing defects. So there is no certificate from the supplier firm stating that the failure of transformers was due to overload, low level of oil and lack of maintenance.</p> <p>As per the delegation of powers prevailing at that time, the Executive Engineers in-charge of TMR (Transformer and Meter Repair) divisions were the authority to take decisions on scrapping of transformers which are beyond repair on a case to case basis. Based on the findings of the PUC, this has since been entrusted with higher officials at the level of Dy. Chief Engineers.</p> <p>The reason for shortage of Copper, Aluminium and laminations in transformers which were scrapped in TMR, Pallom was that during scrapping, all the scrapped items were not sold out but good and healthy spares were retrieved and used in the workshop of TMR Division for repairing transformers.</p>

14	35	Power	<p>The Committee are dissatisfied with the explanation given by the Government for agreeing to the enhanced rate for clearing and transporting switch capacitor equipments. It is seen that as per the general terms and conditions of the work order, the Company was bound to transport any additional equipment arriving at Madras Port at the same terms and conditions. The Committee therefore desire that a detailed information regarding the reasons for awarding enhanced rates be furnished to them.</p>	<p>Tenders were invited for the work of landing, clearing and transporting of switch capacitors, 11 KV UG cables etc. from Cochin Port on 8-2-1993.</p> <p>Before finalisation of the above tender, a consignment of switch capacitors weighing 220 MT arrived at Madras Port on 28-4-1993 instead of at Cochin. In order to avoid huge demurrage charges, the equipment had to be cleared and transported urgently. Therefore, negotiations were made by the Chief Engineer, World Bank Projects with M/s Aspinwall and Company Ltd., the lowest quoted bidder for the work at Cochin. During negotiation, the rate for extra distance of transportation quoted at Rs. 4.5/MT/Km. In the tender was brought down to Rs. 2.25/MT/Km. With the approval of Board, a work order was issued on 21-5-1993 and an agreement was entered into with the firm on 10-9-1993 for the work.</p>
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<p>On finalisation of the tender for transporting the items reaching at Cochin Port, orders were placed with M/s. Aspinwall and Company Ltd. On 28-6-1993 and the contract agreement was entered into on 7-8-1993. As per the contract they were bound to transport items arriving only at Cochin Port at the agreed rate.</p> <p>Subsequently, another consignment weighing 380 MT also arrived at Madras Port. The contractor was not willing to do the work relating to this consignment at the same terms and conditions of the work order dated 21-5-1993. Negotiations were made with the contractor. Though the firm had insisted for their quoted rate of Rs. 4.50/MT/Km. for extra distance of transportation, agreed for a rate of Rs. 3.90/MT/Km. This rate was approved by the Board and work order was issued on 23-11-1993. Based on the work order an agreement was entered into with the firm on 15-1-1994.</p>				

The rate of Rs. 2.25/MT/Km. was only for the work order dated 21-5-1993. For subsequent consignments, the firm was willing to carry-out the work only at the negotiated rate of Rs. 3.90/MT/Km. Though there was a general condition to transport the additional consignment from Madras at the same terms and conditions of the work order dated 21-5-1993, the firm was not willing to transport subsequent consignment at that rate. Therefore, negotiation was further held to decide the rate of Rs. 3.90/MT. The other alternative was to invite another tender which would have costed more and the Board would have paid heavy demurrage charges had the clearance been delayed. The equipment was also required urgently. Considering all these aspects, the order for the subsequent consignment landed at Madras was given at the negotiated rate.

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15	37	Power	<p>The Committee find that there is slackness on the part of the Kerala State Electricity Board in the survey and acquisition of the land where the construction of 110 KV line was envisaged. If the Board had taken action for the acquisition in time, then the loss on the account could have been avoided. Hence the Committee recommend that in future a well defined action plan should be chalked out before embarking upon construction works.</p>	<p>The Board has assured to comply with the recommendations. The Board has examined the matter and issued directions (B.O. dated 1-4-2002) to all the Chief Engineers of Transmission Profit Centres that estimate for the construction of substations and connected lines should be prepared after conducting detailed profile survey, soil testing and preparing the schedule for lower spotting and erection so that claim for extra items/excess quantities etc. can be avoided. The Chief Engineers of Transmission Project Centres have also been directed to award the contract work only after completing the above formalities.</p>
16	38	”	<p>The Committee observes that there is delay on the part of the Board in taking decisions. The Board took fourteen months to decide whether to allow an enhancement of 140% in the rate of contract as demanded by the firm in April 1992 for work which was awarded in January 1991. Such avoidable delays lead</p>	<p>In the past acquisition of land, numbering of trees, assessment and payment of compensation, etc. were done by the Revenue Department. The Board has since amended the manual of instruction (B.O. dated 28-6-1997) with regard to land acquisition, payment of tree cutting</p>

			<p>compensation preparing mahazer, valuation statement etc. to avoid delay in the land acquisition proceedings.</p> <p>By the above mentioned changes, it is expected that delay in acquisition of land etc. will be avoided.</p>
17	39	”	<p>to financial loss to the Board, as contractors will demand enhanced rates citing increase in the cost of labour and materials.</p> <p>Hence the Committee recommend that in future the Board should be vigilant enough to see that timely decisions are taken so that unnecessary expenditure can be avoided.</p>
18	41	”	<p>The Committee are surprised to note that there was considerable variation in the estimated length and the actual length executed, of the penstock pipe. This shows that the estimate prepared by the Board was not realistic. The Committee therefore recommend that in future the Board should take its decisions and award contracts only on the basis of comprehensive and realistic estimates prepared by responsible officers. The Committee desire that an enquiry</p> <p>Malampuzha Small Hydro Electric Project was the first ever mini project taken up by Kerala State Electricity Board. The power house is at the foot of existing Dam being utilized for irrigation purpose. Shifting of the Power House from the originally proposed location and change in turbine necessitated additional length of penstock. Hence on actual execution of the work, the length of the penstock exceeded the originally estimated length. The Board had requested the firm to supply the additional penstock of required length</p>

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			<p>should be conducted to fix the responsibility for preparing the defective estimate.</p>	<p>without extra payment. But the firm did not agree to this. The alternative was to proceed legally against the firm which would have resulted in the total stoppage of all erection work of the project and uncertainty of winning the case. The delay in settling the dispute would have caused an estimated annual generation loss of Rs. 112 lakh. In order to avoid such loss, the Board decided to make extra payment for the additional length of penstock.</p> <p>Based on the recommendation of the Committee, the Board has constituted a three member Committee for fixing responsibility for the defective estimate of the Malampuzha Small Hydro Electric Project. Further action will be taken on receipt of the report of the Committee.</p>
19	42	Power	<p>The Committee also desire to be furnished with details of the agreement made with Best and Crompton Engineering Limited, Madras for this schemes.</p>	<p>Copy of the agreement is enclosed as (Annexure II).</p>

20	44	<p>The Committee observe that the officials who were entrusted with the work handled the issue in an irresponsible manner leading to inordinate delay in the completion of the work and causing financial loss to the Board in addition to the difficulties caused to the general public in the northern parts of the State due to voltage problem.</p>	<p>The Chief Engineer (Transmission) Trivandrum had approved the route for construction of 20 Kms. Of 110 KV line from Kasaragode to Mulleria in June 1985. At the time of execution of the work, deviation for a portion of the line from the original route i.e. 2.5 Kms. was made. Based on the Audit observation that preparation of incorrect profile and non laying of survey stones resulted in loss of Rs. 1.18 lakh to the Board by way of tree cutting compensation and related works, in the abandoned route, the Chief Engineer, Transmission North fixed the liability of Rs. 1,10,631 against the then Assistant Executive Engineer and the Assistant Engineer equally. On a representation from these officers the Board had ordered further enquiries into the matter. The Enquiry Officers have opined (Reports enclosed as Annexure III) that the above mentioned liability should not be recovered from either the Assistant Engineer or the Assistant Executive Engineer since they were not personally responsible for the loss. The Board after</p>
21	45	<p>The Committee recommend that steps should be taken to see that such instances are not repeated in future. The Committee opined that proper survey should be conducted before the proposal of a work is approved and that no major changes occur at a later stage. Any deviation from the original plan generally tend to put a stop to the work and also lead to financial loss to the Board.</p>	

1	2	46	Power	3	4	5
22					<p>The Committee desire to be informed of the findings of the inquiry report and action taken by the Board against the officials responsible for causing loss to the Board.</p>	<p>considering all aspects involved in the matter had constituted a Committee in April 2001 with Member (Transmission) as Convenor, Member (Generation) and Chief of Distribution as members to examine the entire issue.</p> <p>The above Board Level Committee has inter alia observed that (Report enclosed as Annexure IV) "Proper skill or competency is not seen available to the personnel who were entrusted with the survey works. This is probably due to lack of training in such specialized work. Original surveys and subsequent surveys were conducted in a manner not so efficient and best possible way as are available in Board. But failure to counter check by a re survey as provided in the contract is a lapse that cannot be justified. All officers from top to bottom form part of the failure. Hence, failure is totally attributable to the weak system of management in the Board. Lack of application of mind, delay in decisions, deficiency in skills of</p>

employees and absence of proper design and monitoring systems contributed in a big way to the state of affairs. Recovery from one or two in the chain of officers does not stand the test of legal or logical scrutiny". The Committee recommended that Board should not order any recovery from Assistant Engineer and Assistant Executive Engineer. The full Board accepted the recommendation of the committee in September 2001.

Having noticed that while drawing HT/EHT line etc. extra expenditure was being incurred due to the deviation in the route from the original one, mainly due to the absence of proper system in design, review and execution of transmission projects and also due to the absence of a continuous and regular monitoring of projects under execution, the Board had issued instructions vide circular dated 19-9-2001 (copy enclosed as Annexure V) to all Chief Engineers, implementing officers and all supervisory staff

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				<p>to exercise effective supervision in each step in the execution of projects/works. It was also made explicitly clear in the circular that failure in supervisory functions detected/reported in future will be viewed very seriously by the Board:</p> <p>In a project like this, minor deviation to happen particularly in the past when profile survey etc. were not properly carried out before the award of works. To avoid such contingency at present works are tendered and awarded only after detailed survey and finalisation of estimates.</p>
23	48	Power	<p>The Committee recommend that in future the Board should take all necessary steps beforehand to clear consignments from the ports on its arrival and avoid payment of demurrage.</p>	<p>In order to avoid demurrage and to clear the imported equipment in time, the following remedial measures have been taken by the Board:</p> <p>A clause has been incorporated in the contract for supply of imported equipment that the contractor will be responsible for the delay in clearance of such equipment and the contractor has to bear the demurrage charges if any incurred in connection with the delay in customs clearance due to their lapse.</p>

Purchase orders are amended directing the suppliers of equipment to send the customs documents sufficiently early so that arrangements could be made to clear the equipment in time.

The documents connected with the customs duty are requested to be forwarded to the Financial Adviser through the concerned Project Manager and they are made responsible for the remittance of customs duty in time.

A Liaison Officer with supporting staff is also functioning in Kochi to facilitate expeditious clearance of the imported equipment. The Liaison Officer co-ordinates the various activities connected with customs clearance. He ensures that the technical write up of the equipment imported and other relevant documents are made available to the clearing agent sufficiently early so that delay at customs house and wharf can be avoided.

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24	49	Power	<p>The Committee opine that it was lack of proper planning and absence of proper estimation of the requirements of the Board that lead to an extra expenditure of Rs. 4.17 lakh in the purchase of cement.</p>	<p>The actual requirement and availability of cement in various circle stores under Kerala State Electricity Board are taken into account before notifying the tender and placing purchase order. Procurements are made limiting the quantity to the actual requirement assessed after taking into consideration the stock position, pending supply from the ongoing contracts, planned work, lead time for supply etc. The Board has taken steps to streamline the tender processing system. The tender notifications are published in the Board's website, besides publishing in Newspapers. At present the Board has curtailed long delays in tender and processing the tenders by prescribing suitable returns for monitoring the work. The time taken in processing the tenders are monitored by the Purchase Committee in order to avoid procedural delay. The Board has also entrusted purchase of cement, steel etc. to the contractors themselves instead of supplying departmentally. Purchase of essential and low</p>
25	50	”	<p>The Committee opine that if realistic estimate was prepared at the time of placing order extra expenditure could have been avoided. The Committee therefore recommend that steps should be taken to avoid procedural delay so as to reduce/avoid extra expenditure</p>	

				<p>value items has been decentralized by permitting the field units to procure such essential and low value items. All these measures are expected to reduce the procedural delay in procurement of materials.</p>
26	51	”	<p>The Committee understand that 43 grade cement being of higher quality only lesser quantity of the cement was consumed. The Committee point out that if such was the case, had orders been placed for the higher grade cement at the initial stage itself, the Board could have saved considerably on transportation charges. The fact that instruction to reduce the mix of the 43 grade cement received and consumed from June 1994 was issued only in February, 1996 also indicates irresponsibility on the part of the Boards officials.</p>	<p>During January, 1994, Kerala State Electricity Board invited quotations for the purchase of 50000 MT of Ordinary Portland cement for the various construction works. The rate quoted by various firms including, M/s Malabar Cements Ltd., was for the 33 grade cement. Out of 50000 MT of cement tendered, order for 10000 MT of cement at the rate of Rs. 1972.26 per MT was given to M/s Malabar Cements Limited along with orders for the other firms on 6-5-1994. It was only after receiving the purchase order, that M/s Malabar Cements informed that they had stopped production of 33 grade cement and they could supply only the higher 43 grade cement at an increased rate than the rates offered by the other firms for the 33 grade. The Board accepted</p>

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<p>their proposal vide B.O. No. 969/94 (TC2-P-408/94) dated 2-6-1994 on the consideration that M/s Malabar Cements Ltd. is a Government of Kerala Undertaking, the only public sector cement manufacturing unit in Kerala, and in tune with the policy of Government to promote such industries in Kerala. The purchase order to M/s Malabar Cements Ltd. was placed in 06/1994 for the supply of 43 grade cement at Rs. 2132/MT and they started supplying cement to the pole casting yards from 07/1994 onwards.</p> <p>The introduction of the higher 43 grade cement was known to the Board only after placing the order with the firms and as such it was not possible to take steps for procuring the same at the stage of invitation of quotation itself.</p> <p>Even though M/s Malabar Cements Ltd. had advertised that 43 grade cement is having higher strength, it was not authenticated by any test certificates. Since cement was urgently needed for</p>				

the pole casting works the cement received was used without waiting for test results. It was not practicable to reduce the quantity of cement for the concreting works immediately because the strength of concrete depends upon various factors like quality of fine and coarse aggregates, quality of water used, type and duration of curing, climatic conditions etc., apart from the quality and grade of cement. When a new grade of cement was introduced in the market and the Board purchased the same for the first time, economy in quantity couldn't be achieved immediately. The strength parameters of concrete produced from the newly introduced higher grade cement had to be tested using various batches of cement till a consistent result is obtained to prescribe the revised quantity mix. Once the revised mix design is found feasible and accepted, then only, instructions can be given to the field officers to reduce the quantity of higher grade cement. The same practice has been followed in the instant case too.

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<p>In August 1994, the Director, Research Organization, Idamalayar was entrusted to conduct mix design studies of concrete mixes using 43 grade cement supplied by M/s Malabar Cements Ltd. As per the REC Manual on manufacturing of PSC Poles, it is clearly stated that the mix proportions especially for the higher grades of concrete are to be considered as norm only. During field applications, modifications may become necessary as the materials available may not exactly confirm to those assumed in the mix designs. Therefore, it is usual to make trial mixes using the given materials and test them for the required strength. If the strength requirements are not met suitable modifications may be effected by reviewing the cement content, grading of aggregates and also the water content. As such the mix designs of various pole casting yards were carried out in stages.</p> <p>The first test result reported in October 1994 revealed that it could be possible to reduce the</p>				

quantity of cement without sacrificing the strength if 43 grade cement is used.

The second test results reported in February 1995 firmly indicated that it is possible to effect reduction of cement if the newly introduced 43 grade cement was used.

When the mix design was found feasible and acceptable, instructions were issued to the field officers that whenever Malabar 43 grade cement is used for PSC pole casting works, the mix design recommended by the concrete testing lab of Idamalayar may be adopted limiting the quantity of cement.

The mix ratio for 33 grade cement is 480 kg./cubic meter and that proposed for 43 grade cement is 450 kg./cubic meter. Effect of excess cement in any concreting work is that the product will gain more strength than desired up to an upper limit.

The upper limit for quantity of cement in a concrete mix can be taken as 530 kg./cubic meter (as per REC Manual). Hence in this case the cement contents were well within the upper limit.

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27	Power		<p>The Committee recommend that action should be taken against the officials responsible and the details of action taken should be intimated to the Committee. The Committee also recommend that such instances should not be repeated in future.</p>	<p>As described above, there was an inevitable time gap between the introduction of a new grade cement in the market and to test and decide the revised mix of cement required when higher grade new cement is used. The delay in issuing instructions to reduce the mix of cement after the introduction of the new grade of cement can't be construed as irresponsibility on the part of the Board officials.</p>
28	"		<p>The Committee notice that even though the agreement with Chettinad Cement Corporation Ltd. provided for enhancement in the rate of cement only in the case of power tariff revision, the Board agreed to their demand for increase in the prices of cement on the basis of increase in the rates of raw materials and diesel, thus incurring an extra expenditure of Rs. 44.31 lakh. The Committee are dissatisfied with the explanation of Government for the</p>	<p>The offer to supply cement by M/s Chettinad Cement Corporation Ltd., Chennai was based on the pre-budgetary conditions. When the supply order was placed with the firm, the Budgets of Union and Tamil Nadu Governments had been presented. Because of the provisions in the Union and Tamil Nadu Government Budgets, cost of raw materials of cement and price of diesel had gone up beyond expectations. So the firm informed that they alone cannot bear the entire additional financial burden because of the provisions in the</p>

<p>payment of enhanced rate and recommend that while honouring the tender they should stick to the provision in the agreement.</p>	<p>agreement and requested for an enhancement in the rate of cement. They had also informed that they could supply cement only if their demand was considered.</p>
	<p>The market rate of all the leading brands of cement had also gone up because of the said factors. Short closing the order placed with M/s Chettinad Cements and inviting fresh tenders to procure the required quantity of cement was not resorted to as it was a further time consuming process and also cement had to be urgently made available to the various work sites. Moreover in the background of the increase in the market price of cement, even if the Board had gone for new tender, a more competitive rate could not have been expected during that time.</p> <p>Considering the above factors, the Board took a practical decision to enhance the rates vide B.O. No. 1720/94 (TC2-P-408.93) dated 3-10-1994. Otherwise the loss to the Board on account of delay in construction and possible contractors</p>

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29	56	Power	<p>The Committee point out that it was wrong on the part of the Member (Electrical) to have ordered the refund of excess amount of Rs. 15.29 lakh recovered from the contractor stating that as a matter was under consideration of the Board, recovery may be kept in an abeyance until further orders from the Board. Moreover it was found that the Board had not considered the matter in any of its meetings till March 1996.</p>	<p>claims would have been much more than the extra expenditure incurred on account of the reasonable price escalation allowed to the firm.</p> <p>The excess transportation charges of Rs. 15.29 lakh recovered in July 1995 which was released to the contractor in September 1995 on the basis of instruction issued by the Member (Electrical) has since been recovered in full from the contractors bills. (Bill No. 51, 52, 53 and 54)</p> <p>The details of recovery are given below:</p> <table border="1" data-bbox="560 135 961 674"> <tbody> <tr> <td>Deduction in C.C. Bill No. 51/ 1-7-1996</td> <td>..</td> <td>3,57,889</td> </tr> <tr> <td>Deduction in C.C. Bill No. 52/ 1-8-1996</td> <td>..</td> <td>4,58,188</td> </tr> <tr> <td>Deduction in C.C. Bill No. 53/ 1-10-1996</td> <td>..</td> <td>3,03,172</td> </tr> <tr> <td>Deduction in C.C. Bill No. 54/ 1-11-1996</td> <td>..</td> <td>4,10,130</td> </tr> <tr> <td></td> <td></td> <td>15,29,379</td> </tr> </tbody> </table>	Deduction in C.C. Bill No. 51/ 1-7-1996	..	3,57,889	Deduction in C.C. Bill No. 52/ 1-8-1996	..	4,58,188	Deduction in C.C. Bill No. 53/ 1-10-1996	..	3,03,172	Deduction in C.C. Bill No. 54/ 1-11-1996	..	4,10,130			15,29,379
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		15,29,379																	

<p>An amount of Rs. 3,52,479 towards the interest @ 18.5% for the period from the date of refund to the date of recovery was also recovered from the C.C. Bill No. 56.</p>	<p>As recommended by the Committee, at present borrowings are resorted to only for absolute requirement as and when arise required. The practice of depositing the borrowed fund back in the banks has been reduced to nil. Due to better planning and financial management, the rise in outstanding debts of the Board has been contained and interest burden is on the decrease.</p>
	<p>The Committee observed that there was lack of proper planning in the Board which led to faulty estimation of the funds required by the Board for capital expenditure which in turn prompted the Board to borrow money at higher interest rates from its own fixed deposits.</p>
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31	58
	<p>The Committee recommend that in future, proper assessment of the financial requirements of the Board must be done and steps should be taken for realistic planning and financial management in the Electricity Board.</p>

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		Power			The Committee may be informed whether the entire amount has been refunded																													
						The amount of stipend paid to the apprentices but remain unclaimed from the Board of Apprenticeship Training as, observed in the Audit Report for 1995-96 is Rs. 11,40,341.46. As per the Report received from the field offices of the board, the amount still remain unclaimed as on 28-2-2005 is Rs. 2,76,804.48 as shown below:																												
						<table border="1"> <tr> <td data-bbox="409 685 461 839">1</td> <td data-bbox="461 685 512 839">Ele. Dvn., Alappuzha</td> <td data-bbox="512 685 564 839">..</td> <td data-bbox="564 685 616 839">48,939.48</td> </tr> <tr> <td data-bbox="409 839 461 916">2</td> <td data-bbox="461 839 512 916">Civil Dvn., Trivandrum (Project Account Closing unit)</td> <td data-bbox="512 839 564 916">..</td> <td data-bbox="564 839 616 916">25,998.00</td> </tr> <tr> <td data-bbox="409 916 461 993">3</td> <td data-bbox="461 916 512 993">Ele. Dvn., Mattancherry</td> <td data-bbox="512 916 564 993">..</td> <td data-bbox="564 916 616 993">15,723.00</td> </tr> <tr> <td data-bbox="409 993 461 1070">4</td> <td data-bbox="461 993 512 1070">W.B.P. Circle, Thrissur</td> <td data-bbox="512 993 564 1070">..</td> <td data-bbox="564 993 616 1070">56,780.00</td> </tr> <tr> <td data-bbox="409 1070 461 1147">5</td> <td data-bbox="461 1070 512 1147">Trans. Circle, Thrissur</td> <td data-bbox="512 1070 564 1147">..</td> <td data-bbox="564 1070 616 1147">57,080.00</td> </tr> <tr> <td data-bbox="409 1147 461 1224">6</td> <td data-bbox="461 1147 512 1224">Ele. Dvn., Moovattupuzha</td> <td data-bbox="512 1147 564 1224">..</td> <td data-bbox="564 1147 616 1224">72,284.00</td> </tr> <tr> <td data-bbox="409 1224 461 1301"></td> <td data-bbox="461 1224 512 1301"></td> <td data-bbox="512 1224 564 1301"></td> <td data-bbox="564 1224 616 1301">2,76,804.48</td> </tr> </table>	1	Ele. Dvn., Alappuzha	..	48,939.48	2	Civil Dvn., Trivandrum (Project Account Closing unit)	..	25,998.00	3	Ele. Dvn., Mattancherry	..	15,723.00	4	W.B.P. Circle, Thrissur	..	56,780.00	5	Trans. Circle, Thrissur	..	57,080.00	6	Ele. Dvn., Moovattupuzha	..	72,284.00				2,76,804.48
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						The Chief Engineer (HRM), KSEB discussed the issue of reimbursement of balance amount of stipend paid to the Graduate/Diploma apprentices with the Director of Training and Regional Central Apprenticeship Adviser, Board of Apprenticeship Training (SR) in February 2005.																												

			<p>In the discussion the Director of the Board of Apprentices Training agreed to disburse all the pending reimbursement claims pertaining to the last three years. The Director has also intimated that dues prior to last three years period can be settled only after consulting the Central Apprenticeship Adviser, New Delhi. The issue will be pursued.</p>
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Thiruvananthapuram,
2nd July, 2015.

K. N. A. KHADER,
Chairman,
Committee on Public Undertakings.

ANNEXURE I

BY TELEPHONE CIRCLE ONLY

PHONE NO. 3084 555682

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11-02-05
2157

AGREEMENT

Articles of Agreement No. 04/2001-03 made the 21st day of October 2002 between the Deputy Chief Engineer, T.C.Circle, Aluva, acting for and on behalf of the Kerala State Electricity Board (hereinafter called the Board) of the one part and M/s Vijai Electricals Limited, Industrial Development Area, Balanagar, Hyderabad-500037, Company limited incorporated under the Companies Act 1956. And having its registered office at Plot No.28, Industrial Development Area, Balanagar, Hyderabad-500037 hereinafter called the Contractor which expression shall where the context so admits or applies be deemed to include its successors interest, legal representatives and assignees as well of the other part.

For VIJAI ELECTRICALS LIMITED

[Signature]
 C. V. K. RAO
 Sr. Manager Marketing

[Signature]

Executive Engineer-in-Charge
 Transmission Construction Circle
 K. S. E. BOARD, ALUVA

Whereas the Contractor has agreed with K.S.E.B for the performance of the work accompanied here unto annexed and marked as Schedule A upon the conditions herein mentioned; and whereas the performance of the said work is an act in which the public are interested and is entered into; under the orders of the Board and whereas contractor has deposited in Demand Draft for Rs.17,000/- (Rupees seventeen thousand only) a security for the due performance of this contract. Now these presents witness that in consideration of the payment to be made by the Board hereinafter mentioned the contractor will duly perform the said works in the said schedule set forth and will complete the same in accordance with plans and specifications there unto annexed on or before the day 21.04.2003 and will observe, fulfil and keep all the conditions therein mentioned (which shall be deemed and taken to be a part of this contract as if the same had been fully set out herein) and the Board both hereby agree that if the contractor shall duly perform the said work in the manner aforesaid and observe and keep the said terms and conditions the Board will pay or cause to be paid to the contractor at the times and in the manner in the said conditions set forth, the sum of Rs.3,19,700/- (Rupees three lakhs thirty nine thousand seven hundred only) as Payment for the said works.

ARTICLE I - SCOPE OF WORK

The contractor shall perform everything required to be performed for the Converting the Nos. 160 KVA, Cable box type Distribution Transformers to Bushing type Suitable for Over head line in HT side, after completing all the repair works as agreed by Vijai Electricals Limited. As described in and could be gathered from the documents appended herewith so that they will be finished in as complete a form as possible. He shall provide and furnish all labour, materials tools, plant and equipment and incur all other expenses required to perform the work except to the extent provided in the attached documents and shall complete every item of work in a workman like manner complete in every detail in accordance with the drawings, specifications and conditions of contract hereby agreed to.

VIJAI ELECTRICALS LIMITED

(Sd/-)
 Director (P.O.)
 Public Marketing

(Sd/-)
 Executive Engineer in Charge,
 Transmission Construction Circle
 K. S. E. BOARD, ALUVA

ARTICLE II - PAYMENT

In consideration of what the contractor does under the provisions of this contract strictly in accordance with the terms there of the Board agrees to pay the contractor in Indian currency for the work as shown in schedule of items which includes all the items of work contemplated under the agreement, at the rates mentioned therein.

Payment for the conversion work: This payment will be released by KSEB in lot wise, as and when the materials are arrived in the site and necessary TOC is issued.

ARTICLE III - COMMENCEMENT AND COMPLETION

1. The work to be performed under this contract shall be commenced by the contractor within 30 days from the date of award of contract and shall be diligently prosecuted until it is complete in every respect. It shall be made ready to be taken over by the agreement authority on or before 21.02.2003.

ARTICLE IV - COMPONENT PARTS OF THE

AGREEMENT

The Contract documents among other things consists of

- i) This agreement on stamp paper worth Rs.50/-
- ii) KSEB Work Order No.16/2001-02/21.01.02 (Revised)
Issued to Vijai Electricals Limited, Hyderabad vide letter
No.TCC/ALY/DB/2001-02/Vijay Transformer/1269/
21.01.02.
- iii) B.O.No.2295/2000/TC2-WBP 59/94 Thiruvananthapuram
dttd 15.9.2000.
- iv) Vijai Electricals Lr.No.VE/SER/99/2000/1353 dt 16.10.99
addressed to the Chief Engineer, SS&TLC, Ernakulam.
- v) Vijai Electricals Lr.No.S-732/98/685/3.11.98 addressed
to the Chief Engineer, World Bank Project, Thiruvananthapuram.
- vi) Vijai Electricals Fax Message vide No.VE/SER/99-2000/1638
dttd 26.11.99.

For VIJAI ELECTRICALS LIMITED

(K. V. E. P. C.)
P. Manager, Marketing

Executive Engineer-in-Charge
Transmission (Construction Circle)
K. S. E. BOARD, ALUVA

- vii) Vijai Electricals Letter No.GM(W/Camp.Cochin/01/ dtd 23.12.99
addressed to the Chief Engineer, SS&TLC, Ernakulam.
- viii) Purchase Order No.WBP/MP/TRANS/1/94/VJUAL/862
dated 06.12.94 of CE, World Bank Project.

ARTICLE V - ON ANNEXURE

In case of modifications, if any, an annexure containing all modifications agreed to alone will be appended not and intervening correspondence between the parties and all such correspondence including tender forwarding letters will be inoperative.

ARTICLE VI - RATES TO HOLD GOOD IN CASE OR PERIOD OF THE CONTRACT IS EXTENDED

The rates quoted by the contractor in schedule of items and accepted by the Board shall hold good for all work done towards the completion of the contract whether during the period mentioned herein or during the extended period, if any. No revision rates for the works shall be allowed on any ground or on any reason. -


ARTICLE VII - SERVICE OF NOTICE

Every notice to be given to the contractor may be given to him personally or left at his residence or last known place of abode or business or handed over to his agent, personally or may be addressed to the contractor by post at his usual or last known place of abode or business and if so addressed and posted shall be deemed to have been served on the contractor on the date on which in the ordinary course of post, a letter so addressed and posted would reach his place of abode or business.

ARTICLE VIII - ASSIGNMENT OF SUBLETTING

The contractor shall not assign or make over the contractor or the benefit or burdens thereof or any part thereof to any other person or persons or body corporate. The contractor shall not underlet or sublet to any person or persons body corporate the execution of the

For VIJAI ELECTRICALS LIMITED


V. K. RAO
Sr. Manager Marketing


Executive Engineer-in Charge
Transmission Construction Circle
K. S. E. BOARD, ALUVA

contract or and part thereof without the consent in writing or the contract. The Board shall have absolute power to refuse such consent or rescind such consent (if given) at any time if they are not satisfied with the manner in which the contract is being executed and no allowance or compensation shall be made to the contractor if such consent be given at any time the contractor shall not be relieved from any obligation, duty or responsibility under this contract.

ARTICLE IX - INSOLVENCY OR LIQUIDATION

In case the contractor becomes insolvent or goes into liquidation or makes or proposes to make any assignment for the benefit of his creditors or proposes any composition with his creditors for the settlement of his debts or carries on his business or the contract under inspection on behalf of his creditors or in case any receiving order inspection on behalf of his creditors or in case any receiving order or orders for the administration of his estate are made against him, as in case the contractor shall commit any act or insolvency or in case in which, under any clause or clauses of this contract the contractor shall have rendered himself liable to damages amounting to the whole of his security deposit the contract shall thereupon after notice given by the Agreement authority to the contractor be determined and the agreement authority may complete the contract in such time and manner and by such person as the Board shall think fit. But such determination person of the contract shall be without any prejudice to any right or remedy of the Board against the contractor or his sureties in respect of any breach of contract committed by the contractor.

ARTICLE X - BREACH OF CONTRACT

If the contractor commits breach of all or any of the terms and conditions of contract the Board shall be entitled to recover from the contractor all damages it might suffer thereby. The amount thus due could be recovered from the contractor all damages it might suffer thereby. The amount thus due could be recovered from the contractor in any manner the Board chooses including recovery by Recovery Proceedings.

For VIJAI ELECTRONICS LIMITED

(Signature)
(K. V. E. B.O.)

Manager, Marketing

(Signature)
Executive Engineer-In Charge
Transmission Construction Circle
K. S. E. BOARD, ALUVA

ARTICLE XI
RELEASE OF SECURITY DEPOSIT

The security Deposit furnished by the contractor will be released after the agreement authority certifies that the contractor has performed the contract in a full, complete and satisfactory manner. If the Security Deposit has been cashed the amount thus cashed will be returned to the contractor upon the contractor furnishing a certificate from the agreement authority to the aforesaid effect, subject however that the Board will be entitled to deduct there from the amount of damages, costs, charges and expenses claimed by, from the contractor.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands the day and year first above written. Signed, sealed and delivered by

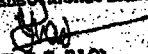
On behalf of the Kerala State Electricity Board


Executive Engineer-in-Charge
Transmission Construction Circle
R. S. E. SARDU, ALUVA
AGREEMENT AUTHORITY

In the presence of 

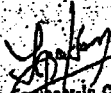
1. V. I. Cheriyan
Asst. Eng. Bangalore
T. C. Division
2. Changanur 19
Asst. Engineer
T. C. Division,
N. Padani.

For VIJAI ELECTRICALS LIMITED


K. V. K. RAO
Sr. Manager Marketing
Signed Sealed and delivered by Contractor

In the presence of

1. J. S. Rao
(11/15/2011)
Vijai Electricals Ltd.
104, Bangalore - Hyd. Rd.
2. K. Siva Prasad
K. SIVA PRASAD
206, Moulali Estates,
M. B. Road, Cuttack.
HYDERABAD - 72.


Executive Engineer-in-Charge
Transmission Construction Circle
R. S. E. SARDU, ALUVA

KERALA STATE ELECTRICITY BOARD

Deputy Chief Engineer
Transmission Construction Circle
Power House Road
Aluva, 683 101



Ph/Fax : 944 - 81
E-Mail : dycecc@ksebcherry

Registered with AD

Date: 11.11.2001

NOTCC/ALY/DB/2001-02/Vijay Transformer/1209

To,
M/S VIJAY ELECTRICALS,
I.D.A, BALANAGAR,
HYDERABAD, 500 037,

Sir,

Sub: Repair and conversion of, cable box type to bushing type, 160 KVA, 11 KV/415 V
Distribution transformers available at Master Plan Division, Kalook, Kachil.

- Ref-1) I.O No 2296/2000(TC2 - WBP 59/94) Thiruvananthapuram, dtd 15-9-2000,
2) Letter No WBP/MF/Trans/1/94/Vijal/1189/12-2-1999 of Chief Engineer
World Bank Projects, Thiruvananthapuram.
3) That Office letter No VE/SER/99 - 2000/1353 dtd 16-10-99 addressed to the
Chief Engineer, SS & TLC, Ernakulam.
4) That Office letter No S - 732/98/685/9-11-98 addressed to the Chief Engineer
World Bank Projects, Thiruvananthapuram.
5) Your Fax message vide No VE/SER/99 - 2000/1638 dtd 26-11-1999 Addressed
To the Chief Engineer, SS & TLC, Ernakulam.
6) Your letter No GM(W)/Camp Cechin/01 dtd 23-12-01 addressed to the
Chief Engineer, SS & TLC, Ernakulam.

WORK ORDER NO: 16/2001-02/1-01-02

Your offer to carry out the following work is hereby accepted subject to
Terms & Conditions detailed below. You are requested to start the work at the earliest

Sl No	Description of the work	Rate	Qty	Amount
1	Converting the 160 KVA, Cable box type Distribution transformer to Bushing type Suitable, for Over head line in HT side, after completing all the repair works as agreed by you.	3950.00	81 Nos	\$19950.00

[Rs Three Lakhs nineteen thousand nine hundred and fifty only]

TERMS & CONDITIONS

- The quoted rate is inclusive of all charges and Taxes if any.
- The rules and regulations now force in K.S.E. Board is applicable to this work order.
- You have to remit an amount of Rs 16000/- [Rs Sixteen thousand only] as security deposit for this work as Cash or Demand Draft in favour of Deputy Chief Engineer, T.C. Circle, Aluva of a Nationalised Bank in addition to the Corporate Guarantee executed by you for lifting 138 Nos of transformer for repair.
- You have to execute an agreement in Kerala Stamp paper worth Rs 50/- within 15 days on receipt of this order.
- You have to lift a lot consisting 20 transformers at a time for the repairs and conversion. The 21 Nos of Transformers [18 Nos of 160 KVA & 3 Nos of 500KVA] already taken to your Factory site on 22-3-99 may be duly repaired for all defects, painted and tested as agreed by you vide letter under reference 4 and necessary conversion may be carried out as per this Work Order. Similarly the remaining 63 Nos of 160 KVA and 3 Nos of 500 KVA transformers may be taken to your factory site for repairs and conversion in lots of 20 Nos each after delivering the repaired lot at Kaloor.
- On completion of the repair and conversion of each lot, the fact may be reported to this Office for arranging inspection by the K.S.E. Board and necessary Dispatch clearance will be issued there after.
- All the loading, unloading and transportation charges will be met by you as agreed in your letter vide under reference 3 & 4.
- The date of completion of all works including repairs of 61 Nos of 160 KVA & 3 Nos of 500 KVA Transformer and the conversion is fixed as 30-6-02. If the Transformers are not delivered in the prescribed period, the Board with out prejudice to other remedies under the contract will recover from the supplier as liquidated damages a sum of 01% per week or part there of up to a maximum of 10% value of the contract.
- The payment will be made on after satisfactory completion of the work assigned to you. You have to forward the invoice with all dispatch documents for arranging the payment.
- A copy of this work order may please be returned to this Office duly signed by you as a token of acceptance.

Yours faithfully


Deputy Chief Engineer

Copy submitted to the Chief Engineer, SS & T.L.C., K.S.E. Board, Ernakulam for information.

Copy forwarded to the Executive Engineer, Master Plan Division, Kaloor for information and necessary action. You are requested make necessary arrangements for the repairing works with the Firm.

Copy to AB & File.

20
21
63+3
1078

81
84

**KERALA STATE ELECTRICITY BOARD
MEMO OF WORKS (SCHEDULE A)**

Name of work	Value of work		Date of Commencement of work	Date of Completion of work	Details Of Security Deposit
	Sanctioned Rs.	Accepted Rs.			
Converting the 86 Nos. 160 KVA. Cable box type Distribution Transformers to Bushing type Suitable for Over head line in HT side, after completing all the repair works as agreed by Vijai Electricals Limited.	3,39,700/-	3,39,700/-			DD No 579121 dated 4.4.02 for Rs.17,000/-

For VIJAI ELECTRICALS LIMITED

[Signature]
(K. V. K. RAO)
Sr. Manager Marketing

[Signature]
Executive Engineer in Charge
Transmission Construction Circle
K. S. E. BOARD, ALUVA

TERMS & CONDITIONS

The quoted rate is inclusive of all charges and Taxes if any.

The rules and regulations now force in K.S.F. Board is applicable to this work order.

You have to remit an amount of Rs 17000/- [Rs Seventeen thousand only] as security deposit for this work as Cash or Demand Draft in favour of Deputy Chief Engineer, T.C. Circle, Aluva of a Nationalised Bank in addition to the Corporate Guarantee executed by you for lifting 138 Nos of transformer for repair.

You have to execute an agreement in Kerala Stamp paper worth Rs 50/- within 15 days on receipt of this order.

You have to lift a lot consisting 20 transformers at a time for the repairs and conversion. The 21 Nos of Transformers [18 Nos of 160 KVA & 3 Nos of 500 KVA] already taken to your factory site on 22-9-99 may be duly repaired for all defects pointed and tested as agreed by you vide letter under reference 3 and necessary conversion may be carried out as per this Work Order. Similarly the remaining 69 Nos of 160 KVA and 3 Nos of 500 KVA transformers may be taken to your factory site for repairs and conversion in lots of 20 Nos each after delivery of the required lot at Malabar.

On completion of the repair and conversion of each lot the bill may be reported to the Office for arranging inspection by the K.S.F. Board and necessary Dispatch clearance will be issued there after.

All the loading, unloading and transportation charges will be met by you as agreed in your letter vide under reference 3 & 6.

The date of completion of all works including repairs of 86 Nos of 160 KVA & 3 Nos of 500 KVA Transformer and the conversion is fixed as 30-6-02. If the Transformer are not delivered in the prescribed period, the Board with out prejudice to other remedies under the contract will recover from the supplier as liquidated damages a sum of 0.1% per week or part thereof up to a maximum of 10% value of the contract.

The payment will be made on after satisfactory completion of the work assigned to you. You have to forward the invoice with all dispatch documents for arranging the payment.

A copy of this work order may please be returned to this Office duly signed by you as a token of acceptance.

Faithfully

Chief Engineer

For VJ&F

St. Manager

KERALA STATE ELECTRICITY BOARD

Chief Engineer

Construction Circle
 New Road
 681191



Ph/Fax : 0484 - 621062
 E-Mail : dscececahy@sanchernet.in

Registered with AD

Date.....

ICC/ALY/DB/2001-02/Vijay Transformer/

VIJAY ELECTRICALS,
 BALANAGAR,
 ERABAD-500 037.

Repair and conversion of cable box type to bushing type 160 KVA / 11 KV HT/W
 distribution transformers available at Master Plan Division, Kollam Circle.

G.O. No. 2995/2000/IC, WHP 59/94 Thiruvananthapuram dated 12-12-2000

Letter No WBP/MP/Trans/1/94/Vijay/1189/14-2-1999 of the Chief Engineer
 World Bank Projects, Thiruvananthapuram.

That Office letter No VE/SER/99-2000/1353 dtd 16-10-99 addressed to the
 Chief Engineer, SS & T.L.C. Ernakulam,

That Office letter No C-732/98/185/3-11-98 addressed to the Chief Engineer,
 World Bank Projects, Thiruvananthapuram.

Your Fax message vide No VE/SER/99-2000/1638 dtd 26-11-1999 addressed to
 the Chief Engineer, SS & T.L.C. Ernakulam,

Your letter No G.M.DN/Cable/Enclun/01 dtd 23.12.01 addressed to the
 Chief Engineer, SS & T.L.C. Ernakulam.

WORK ORDER NO/16/2001-02/Revised/21-01-02

Your offer to carry out the following works is here by accepted subject to the
 conditions detailed below. You are requested to start the work at the earliest.

Description of the work	Rate	Qty	Amount
Converting the 160 KVA. Cable box type Distribution transformer to Bushing type Suitable for Over head line in HT side, after completing all the repair works as agreed by you.	3950.00	86 Nos	339700.00

[Rs Three Lakhs thirty-nine thousand seven hundred only]

ANNEXURE II

3PSC



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CONTRACT FORM.

This Agreement made on the THIRTEENTH day of MARCH 1989 between the Kerala State Electricity Board (herein after called " the Board ") on the one part and M/s. Best and Crompton Engineering Limited., Beacon Neypic Division, 39, Industrial Estate (north), Ambattur, Madras 600 098 (herein after called " the Supplier) on the other part.

For BEST & CROMPTON ENGINEERING LTD.

R. Seshadri Nathan
 R. SESHADRI NATHAN.
 MARKETING MANAGER.

-True copy -
[Signature]
 Senior Finance Officer
 Kerala State Electricity Board
 Vidyuthi Bhavanam, Pattom
 Thiruvananthapuram-695 004



- : 2 : -

WHEREAS the Board is desirous that certain goods and ancillary services should be provided by the supplier viz. Part A- Design, Submission of detailed and authenticated model test reports, test reports and calculation of efficiency and performance figures of the prototype of the turbine offered as per relevant Standards/ IEC codes, manufacture, testing before despatch, transport with proper packing upto site with full insurance cover as required in the Order DX5/SH/ML/101 dated 24-12-1968 and delivery as per approved schedule of all the equipment mentioned therein for the 1 X 2500 Kw hydro-generating set

For BEST & COMPTON ENGINEERING LTD.

R. Seshadrinathan
R. SESHADRINATHAN,
MARKETING MANAGER.

True copy . . . 2 . . .
[Signature]
Senior Finance Officer
Kerala State Electricity Board
Vydyuthi Bhavanam, Pattom
Thiruvananthapuram-695 004



- : 3 : -

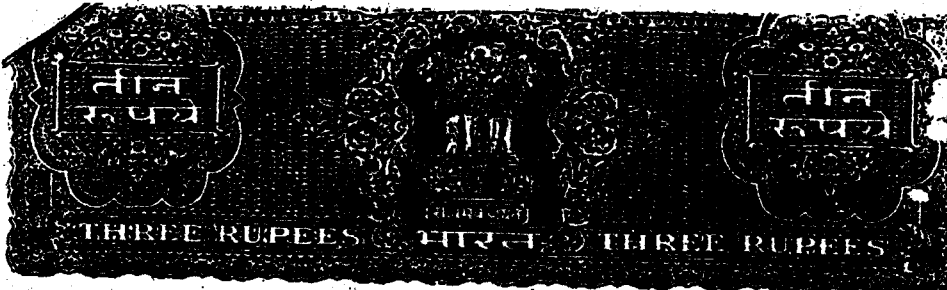
complete with all related auxillary equipment, suitable penstock extension piece and other electrical and mechanical equipment and spares for the equipment, all conforming to the guaranteed technical particulars and performance figures mentioned in the Order and Part B- Handling, erection, testing, commissioning and performance testing of the equipment and mentioned in the order as per approved erection schedule and has accepted a bid by the supplier subject to the conditions stated in the order for the provision of these goods and services for the sum of Rs. 2,46,13,900/- (Rupees Two Crores, Forty Six Lakhs, thirteen thousand and Nine hundred only) (hereinafter called " the contract price").

For BEST & CROMPTON ENGINEERING LTD.

R. Seshadharan

R. SESHADHARAN

Form copy
[Signature] ...4...
 Senior Kinade Officer
 Kerala State Electricity Board
 Vidyuthi Bhavanam, Pattom
 Thiruvananthapuram-695 004



NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- (1) In this agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to:
- (2) The following documents shall be deemed to form and be read and construed as part of this agreement viz.,
 - (a) The Bid form and the Price Schedule;
 - (b) The part - I of bid documents- Technical Specification, bid form and price schedule..
 - (c) The Part-II of bid documents- General Conditions of contract and the Special Conditions of Contract); and
 - (d) Order No. DX5/SH/ML/101 dated 24-12-1988 of Chief Engineer, Electricity (Generation), Kerala State Electricity Board.
- (3) In consideration of the payments to be made by the Board, to the supplier, as hereinafter mentioned, the supplier hereby covenants with the Board to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

BY & PROMPTLY ENGINEERING LTD.

Ranath
R. SESHADRINATHAN.



True copy . . . 5
[Signature]
Senior Finance Officer
Kerala State Electricity Board
Vidyuthi Bhavanam, Pattom
Thiruvananthapuram-695 004



(4) The Board hereby covenants to pay the supplier in consideration of the provisions of the goods and services and remedying of defects therein, the contract price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

IN WITNESS WHEREOF the parties hereto have caused this agreement to be executed in accordance with the respective laws, the day and the year first above written.

Signed, sealed and delivered by the Said Chief Engineer, Electricity (Generation), Kerala State Electricity Board, Trivandrum-695 004 (for and on behalf of the Board).

J. L. ...
CHIEF ENGINEER (GENERATION)
KERALA STATE ELECTRICITY BOARD
TRIVANDRUM
763

In the Presence of: *M. Hanumanth...*
M. Mohammed D. ...
...

Signed, sealed and delivered by the Said M/s. Best and Crompton Engineering Limited., Ambattur, MADRAS, 600 098 (for and on behalf of the contractor).

R. V. R. Roy
M.D.

In the Presence Of :

...
Senior Engineer
Kerala State Electricity Board
Vidyuthi Bhavanam, Pattom
Thiruvananthapuram-695 004

R. V. R. Roy
TC 27/1874
...

ANNEXURE III

REPORT

Subject:- Construction of 110 KV D.C. line from Kasaragode to Mulleria - Deviation in route resulting in extra expenditure to the Board - Domestic enquiry.

Reference:- Order No. CE/TRN/AUDIT/Mulleria/96-97/36 dt. 4-4-99 of Chief Engineer (Ele.) Transmission (North) Kozhikode.

.....

1. Scope of enquiry

To enquire into the matter regarding the deviation of line route and the subsequent tree felling for the construction of 110 KV DC line from Kasaragode to Mulleria along the originally proposed route and also along the deviated route causing wasteful expenditure.

2. Case history

- 2.1:- Land for the construction of 110 KV substation at Mulleria was taken possession on 31-1-1987.
- 2.2:- On 2-12-1988 Chief Engineer, Transmission, Trivandrum directed the Dy. Chief Engineer, Transmission Circle, Kozhikode to carry out the line survey of the line from Kasaragode to Mulleria departmentally.
- 2.3:- On 5-1-1989 Executive Engineer, Transmission, Kannur requested ratification for the contract arrangement done for the survey, since surveying by departmental staff was not feasible due to acute dearth of staff. This was recommended to Chief Engineer by the Dy. Chief Engineer, Kozhikode on 2-2-1989.
- 2.4:- On 1-2-1989 Chief Engineer, Transmission, Trivandrum directed the Exe. Engineer, Transmission, Kannur to do the survey only departmentally.
- 2.5:- On 8-2-1989 Asst. Exe. Engineer, Substation Sub Division, Kasaragode requested Executive Engineer to direct civil wing staff to assist the Asst. Engineer in surveying and allot all the survey instruments.
- 2.6:- On 27-6-1989 the route map of the 110 KV line from Kasaragode to Mulleria was approved by the Chief Engineer, Transmission, Trivandrum.

- 2.7:- On 20-3-1990 the line work was awarded to M/s. ~~W. Co.~~ Engineering Industries, Alwaye by Chief Engineer, Transmission, Trivandrum.
- 2.8:- On 16-7-90 Sri.M.Kuttikrishnan, Asst.Engineer took charge of the section.
- 2.9:- On 26-7-90 the contractor started the work.
- 2.10:- On 30-7-1990 Dy.Chief Engineer, Transmission, Kozhikode approved the profile and tower schedule.
- 2.11:- On 21-8-1990 the Asst.Engineer No.II at the office of the Chief Engineer, Transmission, Trivandrum put up a note printing some discrepancies in the tower schedule already approved by the Dy.Chief Engineer, Transmission Kozhikode.
- 2.12:- On 28-9-1990 the contractor temporarily suspended the work.
- 2.13:- On 12.10.1990 the contractor wrote to Chief Engineer saying that the profile does not agree with the survey book or terrain. Angle locations are not properly marked and requested permission to resurvey the entire route.
- 2.14:- On 24-10-1990 Asst.Exe.Engineer reported to Executive Engineer that the valuation of trees between locations 7 to 12 has been conducted and valuation between 12 to 24 would be conducted on 7-11-1990.
- 2.15:- On 18-7-1991 Contractor resumed the work as reported by Chief Engineer, Transmission, Trivandrum on 27-7-91.
- 2.16:- On 10-9-1991 cutting of trees commenced after valuation as stated by Asst.Engineer in his explanation dt.30-1-91 to Dy,Chief Engineer, Kozhikode.
- 2.17:- On 17-9-91 Asst.Exe.Engineer was relieved on transfer.
- 2.18:- On 21-10-91 Dy.Chief Engineer, Kozhikode convened a conference to review the progress of work. It is reported in the conference that the tree cutting along the entire route except line locations had been complete. Also deviation of the route from the approved profile was discussed and Dy.Chief Engineer ordered a detailed resurvey by 30-11-91.

- 2.19:- On 3-12-91 the contractor again pointed out to Chief Engineer, Trivandrum the variation of terrain from the approved profile and the consequent change in the tower schedule.
- 2.20:- On 1-1-92 Chief Engineer, Trivandrum instructed Dy. Chief Engineer, Kozhikode to get the profile survey done by the contractor and to get the explanation of the concerned Asst. Engineer and Asst. Exe. Engineer.
- 2.21:- On 20-3-1992 Dy. Chief Engineer requested the Chief Engineer, Trivandrum to terminate the line contractor for non performance.
- 2.22:- On 2-6-92 the contract for the line work terminated.
- 2.23:- On 30-7-1992 the Dy. Chief Engineer, Kozhikode instructed the Exe. Engineer to conduct check survey.
- 2.24:- On 13-10-1992 Exe. Engineer, Kannur reported that the check survey started on 25-7-92 proved to be futile and a re-survey was conducted between locations 33 and Mulleria substation and completed on 30-8-92.
- 2.25:- On 28-12-92 the Chief Engineer, Transmission, Trivandrum approved the revised route from locations 33 to 64.

3. Observation.

- 3.1:- The entire process of surveying and other connected work including the preparation of tower schedule has been done in a hasty manner. The tower schedule was prepared before the final levels taken.
- 3.2:- The contractor for the line work has not taken the profile survey even though there is provision in the estimate and nobody had insisted him to do the survey.
- 3.3:- The Exe. Engineer had affirmed that angle points were provided for mainly to avoid cutting of thick vegetation and to avoid thickly inhabited areas. Later in order to reduce the angle points and to avoid drawing lines along road, a new route was proposed.
- 3.4:- The Asst. Engineer and Asst. Exe. Engineer were not having the necessary infrastructure to conduct the skilled job of line survey.
- 3.5:- The contractor on 12-10-1990 wrote to the Chief Engineer, saying the profile has not agreed with the terrain and asked permission for resurveying. It may also be noted that tree felling along the route has not been started.

then. But no action is seen taken till 1-1-1992. By time trees felling along the already proposed route has completed. This could have been avoided had timely instructions given to the subordinates.

3.6:- The Asst. Exe. Engineer who was attending to the work was transferred and he was relieved on 17-9-91. His service should have been called for before starting the resurvey.

3.7:- There are lapses at almost all stages of this work and proper liaison is not seen maintained among Officers at work.

Conclusion.

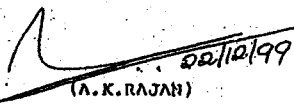
The line work is a joint effort work. Taking profile, approving profile and preparing tower schedule etc. require involvement from Dy. Chief Engineer to Asst. Engineer level. It is not known the reason for the delay in issuing directions for resurvey when the contractor has requested the same. Instead sanction of resurvey given only after the relieving of the Asst. Exe. Engineer in charge of the work. Again no action is seen taken to get the assistance of the former Asst. Exe. Engineer in resurveying the route.

According to the enquiry report of the then Dy. Chief Engineer, World Bank Project Circle, Thrissur the resurvey was not at all necessary since old pegmarks were available along the already proposed route.

The reason why the remarks of the former Asst. Exe. Engineer who had conducted the original survey of the route has not been called for or his assistance and guidance not sought for is not known. Had it been, this loss due to additional tree cutting could have been avoided.

I have also gone through the enquiry report made by the then Dy. Chief Engineer, World Bank Project Circle, Thrissur and I should not find any reason why I should not agree the points and views expressed by him.

In my view this is a typical case of the failure of the entire system right from the top to the bottom. This is a team work and one or another cannot be blamed for the entire fault and I feel that no one in particular is responsible and I order accordingly.



(A.K. RAJAN)
ENQUIRY OFFICER,
CHIEF ENGINEER (ELECTY. DISTRIBUTION)
NORTH. KOZHNIKODE.

ANNEXURE IV

Report

Dated July 23, 2001

Sub: Construction of 110.KV DC Line from Kasargode to Mulleria – Deviation in route resulting in extra expenditure to Board – Decision based on enquiry reports.

Chief Engineer, (Transmission), Trivandrum awarded the work of Construction of 110 KV DC line from Kasargode to Mulleria to M/s Vason Engineering Industries Always during 3/90. During execution of the work the route of line between locations 33 to 64 was found to be deviated from the originally approved route. But this was after the trees along the original route were cut and removed and some works of digging pits were executed. Total extra expenditure was computed as Rs. 1,10,631/-. This was accounted as liability of the officer responsible for the lapse and show cause notice for recovery was served on Sri M. Kunjikirishnan Assistant Engineer during 5/95.

But on receipt of explanation of the Assistant Engineer Chief Engineer (Transmission North) ordered a detailed enquiry by Sri M.V.Balasubramoniam Deputy Chief Engineer, to establish the liability. Deputy Chief Engineer submitted the enquiry report on 16-12-96. In this report Deputy Chief Engineer has concluded his findings as

- a. Officers of the rank of Assistant Engineer and Assistant Executive Engineer are not responsible for the felling of trees and digging of pits in the route
- b. No serious attempt was made at Divisional level or Circle level to set right the mistake when it was detected thereby avoiding the wasteful expenditure.
- c. Belated attempt to throw the blame on lower level officers is incorrect and the additional expenditure shall be accounted in the normal rules in force and shall not be recovered from officers

Enquiry officer attributes this loss to systemic failure in Board. Salient points highlighted in this regard are

- i. Posting of staff to works without requisite skills and knowledge and absence of training programme to impart competency
- ii. Absence of continuous monitoring and control at different levels
- iii. Absence of a proper system of design, review and execution

Chief Engineer (Transmission North) forwarded the enquiry report concurring with the findings and recommending withdrawal of penalty proposed on Assistant Engineer. But Board did not concur with the findings of the Enquiry officer and ordered recovery from Assistant Engineer and Assistant Executive Engineer Sri A.V. Mohanan Nambiar in equal proportion. Subsequently on petition from the officers Board directed Chief Engineer to conduct a domestic enquiry and Sri A.K.Rajan Deputy Chief Engineer

appointed on the assignment. Sri Rajan furnished the report on 22/12/99 and the finding is summarized below.

- i. This is a case of failure of entire system right from top to bottom
- ii. Work is of teamwork nature and one or another officer cannot be blamed in isolation.
- iii. No one in particular is found responsible.

The entire case is a unique one in nature and the period is way back in early nineties. Most of the senior officers involved in the case have retired from Boards service. Hence further oral enquiry may not be of much help in decision. Hence records available were the only source for information. Entire documents related to the subject were perused. Some significant observations on the issue as can be made out from records is as follows:

The line was initially surveyed during February – June 1989. Regarding the survey Chief Engineer (Transmission) North in his letter dated 6-9-97 to the Special Officer (Audit) stated that "the entire process of surveying, profile making and tower schedule preparation has been done in haste. Tower schedule was prepared before trees along the route were cleared and final levels taken. Without final level data tower schedule prepared will obviously contain errors. Even at the beginning of the survey a faulty decision was made by higher officers in asking the field Engineers to go ahead with the survey with inadequate staff and stopping the Exec. Engineer from engaging a contractor with required experience where accuracy is of great importance."

The contractor is seen to have stopped work and written to Chief Engineer on 12-10-99 that "the profile does not agree with the survey book or terrain. No angle stones were seen put on angle points. If the line has to be constructed we have to resurvey the entire route once again and fix the locations.... The trees along the route have not been cut so far. Unless the trees are cut we cannot do the final survey once again and fix the locations."

This indicates urgency for the removal of trees along the proposed route. Tree marking is seen to have been done from 24-8-90 to 20-2-90. Trees were cleared from 10-9-91 onwards. Revised profile upto location 32 was furnished by the contractor on May 20, 1992. Executive Engineer forwarded detailed report on the deviation found necessary from location 33 onwards on 13-10-92. Regarding this deviation, Chief Engineer has written, "angle points were provided for mainly to avoid cutting of thick coconut and areca nut farms and to avoid thickly inhabited areas. Later it was found necessary to reduce angle points to a minimum and to avoid drawing the lines near roads and this led to a different route."

Due to this deviation during the course of work, some work already done (digging a pit, cutting of trees) had to be abandoned.

senior officers with long services in Board and who have hands on experience in works of similar nature conducted detailed enquiries. Conclusions of both enquiry officers converged on the fact that there was a system failure and responsibility cannot be fixed on any one officer in particular. During course of execution of work deviations were detected and intimated to higher offices. On each problem only adhoc decisions were made and acted accordingly. In the second enquiry report this point is specifically brought out and suggested that the entire deviation would have been avoided if consultations were made with officers who did the original preliminary works. Further no officer right from top to bottom is seen to have applied minds to the issues and acted promptly in spite of observations that problem of route survey is serious and might involve extra expenditure.

2. There were transfers of officers during course of execution. In spite of problems on clarity in preliminary works no officer who originally attended the work was intimated or consulted. Instead, officers proceeded with the work on the basis of decisions without any detailed analysis of data and implications. The allegation of deficiency in management was conveyed to then Assistant Executive Engineer and Assistant Engineer intimating the decision to realize cost from them only after a long time. This does not reflect natural justice or legal or regulatory basis.

3. Another fact of significance is that proper skill or competency is not seen available to the personnel who were entrusted with the survey works. This is probably due to lack of training in such specialized work situations. Original surveys and subsequent surveys were conducted in a manner not so efficient but in the best possible way as are available in Board. But failure to counter check with a resurvey as provided in the contract at the proper time is a lapse that cannot be justified. All officers from top to bottom form part of the failure.

4. In fact no evidence or fact is available to point fingers at the officers who are now held responsible. Board has not leveled any charge of management failure or lapse or negligence against the officers. No detailed enquiry as per manuals is seen conducted. Officers were not heard before decisions were made. This appears to be an attempt to evade the real issues. Belated attempt to put the entire blame on lower level officers is in bad taste and not justifiable.

Considering all facts of the case it is concluded that failure is totally attributable to the weak system of management in Board. Lack of application of mind, delay in decisions, deficiency in skills of employees and absence of proper design and monitoring systems contributed in a big way to the state of affairs. Recovery from one or two in the chain of officers does not stand the test of legal or logical scrutiny.

Board shall not order any recovery from Assistant Engineer and Assistant Executive Engineer. The expenditure incurred may be accounted for otherwise under normal rules in force.

Chief of Distribution *[Signature]*
Member Generation CHIEF OF DISTRIBUTION *[Signature]*
Member Transmission *[Signature]* MEMBER (TRANSMISSION) 2/7/7
MEMBER (GENERATION)

Kerala State Electricity Board

Board Secretariat,
Vydyuthi Bhavanam,
Pattom, Thiruvananthapuram,
Date: 19.09.2001.

TC1/SS/104/93.

CIRCULAR

Sub: - Execution of Project / Works - Effective Supervision - Regarding

Ref: - Proceedings of the Board Meeting dated 25.08.2001 (A.I. No.128/2001).

It has come to the notice of the Board that while drawing HT/EHT line extra expenditure is being incurred due to the deviation in the route from the original one. Board has observed that this is mainly due to the absence of a proper system in design, review and execution of transmission projects and also absence of a continuous and regular monitoring of various projects under execution. The Board has examined the matter in detail and decided to take necessary steps to reduce such loss.

Hence, the Board hereby directs all supervisory staff to exercise effective supervision in each step in the process of execution of projects/works. All officers concerned are also informed that failure in supervisory function detected/reported in future will be viewed very seriously by the Board.

Deputy Chief Engineers shall bring the contents of this Circular to the attention of all field officers.


SECRETARY.

To:

The Chief Engineer _____

Copy to:

The Accountant General.
The Special Officer (Audit).
The Deputy Chief Engineer (MIS).
The TA to Chairman.
The TA to Member (Transmission).
The TA to Member (Generation).
The TA to Chief of Distribution.
The PA to Member (Finance).
The PA to Secretary.
Stock File.

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