

FIFTEENTH KERALA LEGISLATIVE ASSEMBLY

COMMITTEE

ON

**PUBLIC UNDERTAKINGS
(2023-26)**

.....^{13th}..... **REPORT**

(Presented on 01.02.2024..)

SECRETARIAT OF THE KERALA LEGISLATURE

THIRUVANANTHAPURAM

2024

FIFTEENTH KERALA LEGISLATIVE ASSEMBLY

COMMITTEE

ON

**PUBLIC UNDERTAKINGS
(2023-26)**

.....^{13th}..... **REPORT**

On

**The action taken by Government on the Recommendations contained in the
Thirty Ninth Report of the Committee on Public Undertakings (2016-19)
relating to Kerala State Electricity Board Limited, based on the Report of the
Comptroller and Auditor General of India for the year ended on 31st March
2003, 2005, 2006, 2008, 2010 and 2012**

CONTENTS

	<i>Page</i>
Composition of the Committee	..
Introduction	..
Report	..
Chapter I	..
Replies furnished by the Government on the recommendations of the Committee which have been accepted by the Committee without remarks	

COMMITTEE ON PUBLIC UNDERTAKINGS (2023-26)

COMPOSITION

Chairman:

Shri E. Chandrasekharan

Members:

Shri A. P. Anilkumar

Shri Anwar Sadath

Shri Ahammed Devarkovil*

Shri T. V. Ibrahim

Shri P. Mammikutty

Shri K. P. Mohanan

Shri D. K. Murali

Shri P. Nandakumar

Shri Kadakampally Surendran

Shri P. Ubaidulla

Legislature Secretariat:

Shri Shaji C Baby, Secretary in charge

Shri Venugopal. R, Joint Secretary

Smt. Jayasree. M, Deputy Secretary

Shri Mohanan. O, Under Secretary

* In the vacancy of Shri K. B. Ganesh Kumar sworn in as Transport Minister w.e.f. 16.01.2024.

INTRODUCTION


I, the Chairman, Committee on Public Undertakings (2023-26) having been authorised by the Committee to present the Report on their behalf, present this.....13th.....Report on the Action Taken by Government on the Recommendations contained in the Thirty Ninth Report of the Committee on Public Undertakings (2016-19) relating to Kerala State Electricity Board Limited based on the Report of the Comptroller and Auditor General of India for the year ended 31st March 2003, 2005, 2006, 2008, 2010 and 2012.

The Statements of Action Taken by the Government included in this Report was considered by the Committee constituted for the years (2021-23) at its meetings held on 7-12-2021 in the presence of officials of Kerala State Electricity Board and later on 7-6-2022.

This Report was considered and approved by the Committee at its meeting held on 26.08.2023.

The Committee place on record their appreciation for the assistance rendered to them by the Accountant General (Audit), Kerala and officials of Kerala State Electricity Board Limited who were present during the examination of the Action Taken Statements included in this Report.

Thiruvananthapuram,
01.02.2024.


E.CHANDRASEKHARAN
Chairman,
Committee on Public Undertakings.

REPORT

This Report deals with the action taken by the Government on the recommendations contained in the Thirty Ninth Report of the Committee on Public Undertakings (2016-19) relating to Kerala State Electricity Board Limited based on the Report of the Comptroller and Auditor General of India for the year ended 31st March 2003, 2005, 2006, 2008, 2010 and 2012.

The Thirty Ninth Report of the Committee on Public Undertakings (2016-19) was presented to the House on 18th May 2017. The Report contained eighteen recommendations and the Government furnished replies to all these recommendations.

The Committee (2021-23) considered the replies received from the Government at its meetings held on 7-12-2021 and 7-6-2022.

The Committee accepted the replies to the recommendations without remarks. These recommendations and the replies furnished by the Government form Chapter I of this Report.

CHAPTER - 1

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

Sl. No.	Para No.	Department Concerned	Conclusions/Recommendations	Action Taken by the Government
(1)	(2)	(3)	(4)	(5)
1	87	Power	The Committee understands that the Board had failed to assess the actual requirement of pre-stressed concrete poles which resulted in the shortage of poles in some Electrical Circles. To overcome this crisis, the Board diverted the poles from other circles which lead to a heavy loss as transportation charge. The Committee points out that such action was against the financial interest of the Board and recommends that the Board should ensure that the assessment of actual requirements are done accurately and scientifically.	Precise assessment regarding the requirement of poles for subsequent period is not possible, as the actual requirement depends on the number of new connections, street lights, number of poles required for maintenance, replacement of poles damaged due to natural calamities, implementation of new schemes announced by Central and State Governments from time to time, deposit works by local bodies etc. which cannot be anticipated in advance. However, as pointed out by the Committee, extreme care is exercised in assessing the requirement of poles for inviting new tenders. Moreover, the duration of the tender for the supply of poles is reduced from 5 years to 2 years so that the variation would be minimum. Also, the requirement is finalized only after considering the actual utilization for the previous 3 years.
2	88	Power	The Committee observed that the Company was forced to terminate the contract awarded for the supply of 3.92 lakh poles in three Electrical Circles due to the failure of the firms to supply poles as per schedule. The Committee noted that since disqualified firms failed to supply the balance poles after the supply of 40% of the	The Company was forced to terminate some contracts due to failure of supply of poles in accordance with the provisions in the agreement. Since Pre-Stressed Concrete (PSC) Poles being a vital item for providing supply to the consumer, in order to avoid shortage of poles in the event of non-supply by the firms already agreed, purchase orders were placed with more than one supplier, for many Electrical Circles.

			agreed quantity, the Company was forced to terminate the contract.	
3	89	Power	The committee criticises the procedural irregularity of the Board in qualifying the firms which were already disqualified by the Pre-Qualification Committee. The Committee blames the decision of the Board to award contracts by violating the existing tender/contract terms and conditions in favour of the contractors. The Committee directs the Board to insist the contractors to follow the contract terms and conditions strictly and impose penalty for their non-compliance to contract provisions. The Committee also recommends that the legal cell of the Board should frame feasible terms and conditions in the contract.	KSEBL is strictly sticking on to the terms and conditions in the agreement. Also, penalty is fully imposed for any short – fall in supply as per the contract provisions. In the light of the previous experience, tender conditions are updated by the Company after obtaining remarks from the Financial and Legal Wings. These are subsequently approved by the Board of Directors and tenders are invited accordingly.
4	90	Power	The Committee expresses its strong displeasure over the unsecured stocking of poles along the road side which got damaged and even buried under the soil over the passage of time. Therefore the Committee recommends that the Board should maintain Material At Site Account (MASA) properly in order to avoid the discrepancies on physical verification of the stock of poles.	It is true that earlier in some areas, the poles are kept along the road side for long time. In order to avoid this, now a provision is incorporated in the Purchase Order to reduce the monthly quantity up to 30% considering the field requirements, to avoid stacking of poles for a long time. As recommended by the Committee, strict instructions are given to the field officers to maintain Material At Site Account (MASA) properly in order to avoid discrepancies on physical verification of the stock of poles. Now they are being accounted properly.
5	91	Power	The Committee express its strong discontent over the inefficiency of the legal cell of the Board in litigation management. So the Committee recommends the Board to restructure	Taking a serious view of the recommendation, the Board had already initiated certain pro-active steps to streamline the functioning of Law Section. The appointment of Nodal Officers (Litigation) vide B.O. (FTD) No.648/2014 [Legal Adviser &

			the legal cell by appointing senior experienced lawyers for the proper handling of cases.	Disciplinary Enquiry Officer/Gel/2011-12] dtd.11.03.2014 in all the Electrical Circles for the smooth conduct of cases before various courts/fora is an affirmative step in this regard.
6	92	Power	The committee was appalled to note that Board's functioning was still Based on the Manual formulated in 1967. The Committee expressed strong displeasure of KSEB following an outdated Manual and directs the Board to amend the Manual by incorporating provisions to make it relevant.	<p>The Ministry of Power, Government of India had issued guidelines vide Order No. 3/7/2015-Trans dated 15.10.2015 for payment of compensation towards damages with regards to Right of Way (RoW) for transmission lines and the same was adopted in KSEBL vide B.O.(FTD)No.624/2019/D(T&SO)/T6/G1/2019-20 dated 14/08/2019.</p> <p>The following are the rates for compensation as per the guidelines</p> <ul style="list-style-type: none"> • Amount equivalent to 85% of fair value of land as tower foot compensation. • Amount equivalent to 15% of fair value of land as RoW compensation. <p>Ministry of Power vide letter No. 3/4/2016/Trans dated 16/07/2020 had finalized the guidelines for payment of compensation towards damages with regard to RoW for transmission lines in urban areas with additional compensation (in the form of Non-Usability allowance) up of 15% of the land value for the width of RoW corridor in notified urban areas.</p> <p>Also in this regard the KSEBL had given concurrence to the recommendation of the Urban RoW Committee to disburse additional 15% non usability allowance in the case urban RoW, based on fair value of land.</p> <p>In the MoP guidelines, it was requested to take suitable decision by States/UTs decision by States/UTs regarding adoption of the guidelines considering that "Land" is a state subject.</p> <p>Action is being initiated for adopting the MoP Guidelines dated</p>

				<p>16.07.2020 for additional payment of compensation with regard to RoW for transmission lines in urban areas.</p> <p>KSEBL is utilizing the service of retired revenue authorities to prepare the land sketch and the area of RoW affected on account of drawing of transmission lines. Since the availability of retired hands with technical skill in digital surveying and in using modern digital equipments are limited, a change in B.O(FTD) No. 563/2021 (LA&DEO/OP(Ele) Cases/2021 dated 30/07/2021 to incorporate qualified private surveyors is proposed.</p>
7	93	Power	<p>While considering the Audit Report of the year 2002-03, the Committee express its discontent over the decision of the Board to generate thermal power without evaluating future financial implications and purchase of thermal power from independent power producers without proper assessment of energy requirement and peak load demand. The Committee recommends the Board to avoid payment of deemed generation charges, that should properly balance the thermal and hydro generation and should study the possibility of selling surplus thermal power to other States. The Committee suggests that the Board may consider promoting mini hydel projects at various locations in the State similar to Barapole project in Kannur District. Such small power generation units will be cost effective and meet the energy needs of the local communities. This would be useful in remote places where the logistics do not permit laying of transmission lines.</p>	<p>Kerala State Electricity Board Limited (KSEBL) had executed Power Purchase Agreements (PPAs) with independent Power Producers (IPPs) namely BKPL (157 MW) and KPCL (21.93 MW) and RGCCPP plant (359.79 MW) of NTPC which are thermal stations to meet the power requirement of the State. In the prevailing power scenario of the State, the demand was met mainly by scheduling the hydro stations of the State which were dependent on the storage based on the rainfall received and the allocation from Central pool which were not consistent. As per the PPA terms, fixed charges would be payable even when the plants were not scheduled by KSEBL. Since the variable costs per unit of these plants were on the higher side, these plants were scheduled need based to meet the rising demand. It may be noted that the validity of PPAs executed with KPCL and BSES expired on 13/05/2016 and 31/10/2015 respectively and the agreements have not been renewed thereafter. Hence KSEBL is at present not paying deemed generation charges to KPCL and BSES. During the tenure of PPA, KSEBL has successfully taken steps for bringing down the fixed charges also. In respect of NTPC plant at Kayamkulam also, KSEBL has approached the Central Electricity Regulatory Commission to bring down the fixed</p>

				<p>charges. The matter is still pending before the Commission. It may kindly be noted that non payment of Fixed Charges would amount to violation of terms and conditions of the PPA and may affect supply from other sources also. Thus the viable option available before KSEBL is to bring down the charges to the maximum extent possible.</p> <p>KSEBL has seized every opportunity to sell the surplus thermal power to other States as detailed in the Annexure. It can be seen that during the period from 2002-17, an amount of ₹ 4432.96 crore was received by KSEBL towards external sale of power of 5885.7 MU at an average realization of ₹7.53/unit. It may also be noted that about 20,477.43 MU has been generated from these stations, a sizeable portion of which was used for meeting the demand of the State itself, especially during different draught years.</p> <p>KSEBL is in the process of formulating and implementing environmentally benign small hydro power projects in the northern Kerala viz, Barapole SHEP (15 MW), Vilangad SHEP (7.5 MW), Kuttiady Tail Race (3.75 MW), Poozhithodu SHEP (4.8 MW), Chembukadavu Stage (7.5 MW), Adyanpara SHEP (3.5 MW), Maripuzha SHEP (6 MW) etc., Further, various Small Hydro Electric Projects are being implemented through Private Participation as per the Small Hydro Power Policy of Government.</p> <p>In tune with Small Hydro Policy 2012 of Government, the following Renewable Energy Capacities are commissioned in the State both under KSEBL and Private Sector. The details are as below:</p>
--	--	--	--	---

				Renewable Resources	Installed capacity (MW) (as on Jan 2018)		
					State Sector	Private Sector	TOTAL
				1.Small Hydro (1 MW to 25MW)	136.09	66.0000	202.09
				2.Solar (1MW & above)	7.250	59.180	66.43
				3.Solar (Less than 1MW)	0.6949	8.7560	9.4509
				4. Wind	2.0250	57.250	59.275
				TOTAL	146.0599	191.186	337.2459
8	94	Power	On perusal of the Audit Report of the year 2004-05, the Committee is of the opinion that the Board should finalise tenders for supply and installation directly with the manufactures rather than through the intermediaries. The Committee also recommends that prior to finalisation of project contracts the Board should compare the cost of similar foreign/ indigenous projects finalised/ executed to secure cost-effectiveness and value for money.	The KSEBL invites tenders for supply of materials from experienced, capable and genuine manufacturers only. Tenders are technically and financially evaluated and prior to the finalization, the rate of the lowest bidder is compared with that of the previous Purchase Order, updated price of existing orders etc. If the previous rates of items are not available, the rates from other utilities are also requested for comparison to secure cost-effectiveness. The remarks of the finance wing is also obtained before finalizing the tenders. Thus the recommendation is scrupulously followed.			
9	95	Power	Committee asserts its opinion that meticulous care should be taken in fixing consultants and vendors for execution of projects strictly keeping the financial interests of the state intact. Adequate measures to reduce costs should be taken while negotiating with foreign sources and follow up action taken to ensure that foreign	KSEBL has selected the Turn-key contractors after observing all formalities prevailing in Board. A tender Committee was constituted on 24.06.2011, comprising officers from the Distribution Wing of Southern, Central and Northern regions along with officers from the legal and financial wings to finalise the modifications required in technical specifications, terms and conditions of contract and other such			

			grants linked to projects are ultimately received without fail and gainfully utilised.	<p>matters in connection with the tendering of schemes.</p> <p>At the time of Pre-Qualification, the credentials and solvency are strictly analyzed to avoid delay in execution of projects keeping the financial interests intact.</p>
10	96	Power	<p>Going through the Audit Report (2005-06), the Committee realises that the budget estimates were prepared without any scientific basis with respect to Schemes/Projects to be executed during the ensuing year. Therefore, the Committee directs the Board to evolve an effective system for the preparation of more realistic budgets, so that it will help foster the purpose of better management.</p>	<p>The budget Estimates in respect of schemes/projects (Capital Budget) is being prepared on the basis of approved Capital Investment Plan of the company. The capital investment plan is being prepared after detailed analysis by different wings of KSEBL and vetting at various levels.</p> <p>At present, there is an efficient system in force for detailed deliberations and analysis of each project before the preparation of plan. The necessity of each work proposed is ascertained after conducting load flow studies in which financial viability and technical viability are examined. Availability of land is ensured in the discussions with land owners and revenue authorities. More over, the probable period required for completion of the project is also taken into account. All these effective steps are being taken before finalizing a project so as to include it in a particular budget.</p> <p>It may be noted that KSEBL was able to reduce the gap between the estimate and expenditure in subsequent years through careful consideration of the issue. Project fund allocations are now being made after many rounds of discussions and cross-consultations among Directors and with Financial Wing to</p>

			<p>examine the feasibility of each scheme. By adopting this method, fund allocations are made in close consideration of the progress of projects in the field. For example, in the case of Athirappally project, which is still under the active consideration of KSEBL, is provided only with a meager amount of Rs. 50 lakhs for the current year.</p> <p>The utilisation of capital schemes over the Budget Estimates for the last three years of KSEBL is furnished below:</p> <p>Rs. Crores</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Revised Estimates</th> <th>Actuals</th> <th>Percentage Utilisation Over Revised Estimates</th> </tr> </thead> <tbody> <tr> <td>2013-14</td> <td>1157.95</td> <td>990.98</td> <td>86%</td> </tr> <tr> <td>2014-15</td> <td>1129.20</td> <td>1076.25</td> <td>95%</td> </tr> <tr> <td>2015-16</td> <td>1205.00</td> <td>1168.02</td> <td>97%</td> </tr> </tbody> </table> <p>From the above, it can be seen that now KSEB Ltd. is utilising almost 100% of its plan funds and hence its estimates are more realistic.</p> <p>The IT Wing of KSEBL has developed a module for Budgetary control and the same has been implemented with effect from 1st April 2018.</p>	Year	Revised Estimates	Actuals	Percentage Utilisation Over Revised Estimates	2013-14	1157.95	990.98	86%	2014-15	1129.20	1076.25	95%	2015-16	1205.00	1168.02	97%
Year	Revised Estimates	Actuals	Percentage Utilisation Over Revised Estimates																
2013-14	1157.95	990.98	86%																
2014-15	1129.20	1076.25	95%																
2015-16	1205.00	1168.02	97%																
11	97	Power	<p>The Committee having analysed utilisation of capital receipts views that it is highly improper to divert capital assets to meet revenue expenses which adversely affected the implementation of new schemes/ projects. Therefore, the Committee suggests to devise more scientific</p> <p>Kerala State Electricity Board Ltd. is availing loans from Banks and Financial Institutions at competitive rates and is also utilising the internal resources for the implementation of capital projects. Capital Projects are also implemented by availing long-term loans and by way of overdrafts and short term loans.</p>																

			<p>and transparent system of cash flow analysis to improve fund management.</p> <p>While considering the Action taken statement, the Committee sought clarification about the present position of fund management system. The financial adviser of the Board clarified that the present fund management system is transparent and added it has stopped the practice of diversion of capital assets to meet the revenue expenses as pointed out by the Committee and paucity of funds has not affected the ongoing projects. The Committee accepted the witness reply.</p>	
12	98	Power	<p>The Committee is also unhappy with the laxity in collection of revenue, paving the way for accumulation of arrears and recommends to the Board to initiate a special drive to recoup the arrears within a stipulated period.</p>	<p>KSEBL has been able to perform better than other distribution licensees, despite significant dues from government agencies such as Kerala Water Authority (KWA) and other few Government departments. This is primarily due to efforts put in by the Company for achieving 100% metering of the consumers so as to better collection efficiency, (As part of social commitment, KSEBL has not disconnected the power supply to KWA and other Government departments, despite default in payment of electricity charges)</p> <p>Collection efficiency is being monitored and steps are being taken to realize all pending dues. Surprise inspections at consumer premises are being carried out to curtail loss of revenue due to misuse and theft. Replacement of faulty & sluggish energy meters are being carried out.</p> <p>Instructions have been issued to the field officers to take</p>

				<p>stringent action for realizing all pending arrears so as to avoid accumulation of arrears, by initiating proper disconnection/dismantling/Revenue Recovery action against the defaulting consumers. Division wise audit committees under the leadership of Regional Audit Officers have been constituted to monitor the realization of long pending arrears and initiation of revenue recovery.</p> <p>In addition to the above, One Time Settlement (OTS) special schemes are announced from time to time by the Company, for realizing long pending arrears.</p>
13	99	Power	<p>The Committee understands that the Board had failed to introduce Personal Digital Analyser for generating invoice at the door step of the consumer. Therefore the Committee insists the Board to introduce PDA to fully automate the billing process and thereby reduce manual work.</p>	<p>Personal Digital Analyser (PDA) meant to generate invoice at the door step of the consumer was introduced in the Company during 2014-15. Its deployment in all Electrical Sections were completed by December 2016.</p>
14	100	Power	<p>The Committee finds that the Internal Audit wing could not conduct audit proceedings effectively as there was no audit module in the software. Therefore the Committee recommends that the Internal Audit should be strengthened by imparting training in Computer Assisted Audit Technique and developing effective Audit modules suitable for Internal and External Auditors.</p>	<p>Audit reports are incorporated in the existing computer application in the Board and a comprehensive audit module is envisaged as part of implementing Enterprise Resource Planning [ERP].</p> <p>Enterprise Resource Planning [ERP] sanctioned by the Government of India will serve as an organizational tool to integrate core business process like Finance & Accounting, Supply Chain Management and Human Resource Management. The application in the system will be capable of sharing data across various departments facilitating flow of information among all business functions.</p> <p>The Board assures that comprehensive audit module will be available after the implementation of ERP and adequate training will also be imparted.</p>

15	101	Power	<p>While analyzing the Audit Report of the year 2007-08 the Committee had noted an inexcusable delay upto 129 months in the implementation of projects due to the delay in acquisition of land, according sanction, awarding tenders and non synchronization of various works due to the absence of proper planning and co-ordination. Therefore the Committee directs the Board to implement small Hydro-Electric projects within the scheduled time through better planning and co-ordination of work. The Committee also recommends that the Board may ensure close monitoring in an effective manner so as to avoid delay and cost over-run.</p>	<p>The implementation of projects sometimes affected/ get delayed due to reasons like land acquisition related issued, contractual failures, geological problems etc., most of which are beyond the control of KSEBL. All efforts are being made to ensure the completion of project without time over-run.</p> <p>Now, project works are awarded only after getting possession of entire land required for implementation of the project. Also, Board has formed a Project Monitoring Cell (PMC) to closely monitor the progress of all ongoing projects and to give recommendations to Board to overcome slippages if any. Further progress of works is being monitored at various levels.</p> <p>KSEBL has already decided to adopt Rehabilitation and Re-settlement package for acquisition of land as per the Rehabilitation and Re- settlement policy of State Government enunciated vide G.O. (MS) No.419/2011/RD dated 15.11.2011.</p>
16	102	Power	<p>While considering the Audit Report of the year 2009-10, the Committee understands that the major hurdles faced by the Board in implementing new projects were due to delay in obtaining forest/environmental clearances and land acquisition. So the Committee directs the Board to follow the policy guidelines from Government in matters of forest clearances, land acquisition and rehabilitation of people displaced by the projects which would be helpful to the Board to meet the targets of capacity addition.</p>	<p>All efforts are being made to ensure the completion of project without cost and time over-run.</p> <p>Now, project works are awarded only after getting possession of entire land required for implementation of the project. Also, Board has formed a Project Monitoring Cell (PMC) to closely monitor the progress of all ongoing projects and to give recommendations to Board to overcome slippages if any. Further progress of works is being monitored at various levels.</p> <p>KSEBL has already decided to adopt Rehabilitation and Resettlement package for acquisition of land as per the Rehabilitation and Resettlement policy of State Government enunciated vide G.O.(M/S)No. 419/2011/RD dated 15.11.2011.</p>

17	103	Power	<p>The Committee finds that the Plant Load Factor of thermal power plants of the Board was very low due to the curtailed operation. Therefore the Committee recommends to examine the cost benefit aspects of operation of Thermal Stations with updated and accurate cost data and ensure the possibility of optimising the utilisation with a view to control the operational cost.</p>	<p>Since the Generation using Petroleum products are more expensive than other modes of generation, its working is limited to peak demand period or at the time of shortage of power. Operation of the plant is decided by the Chief Engineer (Transmission- System Operation) on merit order dispatch.</p> <p>The Operational cost of KDPP is as follows:</p> <table border="0"> <tr> <td>Specific fuel consumption</td> <td>-</td> <td>209g/KWH generation</td> </tr> <tr> <td>O & M Cost</td> <td>-</td> <td>₹0.3968/KWH</td> </tr> <tr> <td>Present cost of LSHS</td> <td>-</td> <td>₹25791.66/MT</td> </tr> <tr> <td>Unit cost of generation</td> <td>-</td> <td>₹0.02579166 x 209 + 0.3968</td> </tr> <tr> <td></td> <td>-</td> <td>₹5.79/ per Unit</td> </tr> </table> <p>Average rate of Merit order dispatch is in the range ₹ 3.45 to ₹4.50 for which power is available from elsewhere. But during peak hours for short duration the rates are higher and hence there is possibility of scheduling the Thermal Plant at KDPP for the short duration.</p> <p>KDPP was under shut down for more than 6 months based on ban on operating the plant without online pollution monitoring system. The Online Pollution Monitoring system has been installed, tested and the plant is now ready for operation from 01.03.2018. The operational cost is mainly the price of LSHS and is varying. Based on the above, System operation is planning for optimum scheduling of the plant in line with the policy decision of the Board.</p>	Specific fuel consumption	-	209g/KWH generation	O & M Cost	-	₹0.3968/KWH	Present cost of LSHS	-	₹25791.66/MT	Unit cost of generation	-	₹0.02579166 x 209 + 0.3968		-	₹5.79/ per Unit
Specific fuel consumption	-	209g/KWH generation																	
O & M Cost	-	₹0.3968/KWH																	
Present cost of LSHS	-	₹25791.66/MT																	
Unit cost of generation	-	₹0.02579166 x 209 + 0.3968																	
	-	₹5.79/ per Unit																	
18	104	Power	<p>The Committee also recommends that the Board may take serious measures to reduce</p>	<p>KSEBL has implemented several steps to reduce the Transmission and Distribution losses in the Kerala Power</p>															

			<p>transmission and distribution loss take precaution against power theft and create additional power generation by encouraging mini hydel projects. The Committee also suggests that proper utilisation of power from Central pool would go a long way towards reducing power deficit and stabilising the precarious situation that arise from time to time.</p>	<p>System. During the period between 2001-02 and 2016-17, the T&D loss in Kerala Power System has reduced from 30.76% to 13.93%, a reduction of 16.83% during the last fifteen years. The details are tabulated in ANNEXURE-I. The steps mainly include :-</p> <p>(a) KSEBL has already taken steps for eliminating chances of unaccounted energy by replacing the existing faulty meters and electro-mechanical meters with electronic meters and also through intensified APTS activities. Replacing worn out/old conductors of existing LT and HT lines, converting single phase lines to three phase lines, ensuring load balancing of transformers, procuring and installing star rated transformers etc which contributes to reduction of distribution losses, is in progress. These works are being included and executed in Annual Plan works. The Annual Plan for 2017-18 targets the replacement of 14.01 lakh energy meters (faulty meters and mechanical meters) with electronic meters. KSEB intends to convert 1754 km of 1 phase lines to three phase, during the financial year 2017-18. The target set for LT re-conductoring is 7519 km and that for HT re-conductoring is 1005 km. Out of these 9.88 lakh meters have been replaced, re-conductoring of 457 km HT line, 6111 km LT line and conversion of 888 km single phase line to three phase line have been completed as on November 2017.</p> <p>(b) Various works are proposed in the Transgrid 2.0 Project to develop a transmission system capable of meeting demands at any part of the network. Construction of new Substations and</p>
--	--	--	---	---

				<p>transmission lines, upgradation of substations and transmission lines to higher voltage level, capacity enhancement of substations, re-conductoring of transmission lines etc. are being done in a time-bound manner so as to reduce the transmission loss to a considerable extent.</p> <p>KSEBL is availing the entire power allocated to the State from the central generating stations. The Unrequisitioned Surplus (URS) Power from central pool, if available, is also being utilized during deficit period.</p> <p>KSEBL has encouraged Small Hydro Projects as per the guidelines issued by the Government of Kerala in Small Hydro Policy 2012. The State Utility/KSEBL shall have the first right of refusal to purchase the power generated from Independent Power Producers (IPPs) subject to the Tariff approved by the Kerala State Electricity Regulatory Commission (KSERC). Tariff for Power Generator from the project shall be project specific tariff as determined by the Commission or generic tariff notified by the Commission, whichever is lower.</p> <p>Based on the above, KSEBL has entered into Power Purchase Agreement with 9 numbers of SHP generators in the state for a total capacity of 66.16 MW and is purchasing power on a regular basis. KSEBL has also established 22 numbers of Small Hydro Projects, totaling to a capacity of 155.7 MW is under development in the state by both KSEBL and various investors. After the implementation of Availability Based Tariff mechanism</p>
--	--	--	--	---

				<p>in Power Sector, penalizing overdrawal/under drawal was imposed on constituents, and Grid discipline was established. As detailed in ANNEXURE-II, the net import of KSEBL for last ten financial years is greater than the Net Energy Scheduled. [Net Energy Scheduled includes the CGS share at Kerala Periphery + Open Access (exp(+)/imp(-) + Interstate purchase/Sale(purchase+)/sale(-)) - TNEB sale from RGCCPP (for 2008-09, 2009-10 & 2010-11)]. This indicates that the entire Central share has been utilized by KSEBL. Hence, KSEBL is properly utilizing the allocated share from Central Generating Stations thereby reducing power deficit in the State. Also over the years, KSEBL is fully utilising the allocated central share as well as the cheaper power contracted through Long/Medium/Short term Contracts so as to bring down the overall power purchase cost.</p>
--	--	--	--	---

Thiruvananthapuram,
 01.02.2024


 E CHANDRASEKHARAN

Chairman,
 Committee on Public Undertakings.

ANNEXURE - I
(Para-93)

Year	External Sale (MU)	BDPP+KDPP+ Thermal IPP Generation (MU)	Revenue (Rs.in crore)
2002-03	121.20	2964.64	47.51
2003-04	0.00	2679.28	0.00
2004-05	0.00	477.43	0.00
2005-06	635.90	193.72	196.51
2006-07	1046.89	449.07	533.36
2007-08	1346.76	1215.85	932.12
2008-09	463.33	2547.56	438.79
2009-10	53.90	2397.93	67.51
2010-11	130.24	1573.94	140.02
2011-12	201.10	833.72	66.63
2012-13	0.00	2184.23	0.00
2013-14	1414.60	1505.91	1336.98
2014-15	369.17	1153.42	619.56
2015-16	53.48	291.35	41.70
2016-17	49.30	9.38	12.77
TOTAL	5885.87	20477.43	4432.96

ANNEXURE - II

Reduction in T&D Losses in Kerala Power System	
Year	T&D Losses (%)
2001-02	30.76
2002-03	29.08
2003-04	27.44
2004-05	24.95
2005-06	22.96
2006-07	21.47
2007-08	20.02
2008-09	18.83
2009-10	17.71
2010-11	16.09
2011-12	15.65
2012-13	15.30
2013-14	14.96
2014-15	14.57
2015-16	14.37
2016-17	13.93

(Para 104)

ANNEXURE- III

Energy Scheduled and Imported for the Last Ten Years(MU)

YEAR	Net Schedule	Net Import
2008-09*	5576.06	5838.32
2009-10*	6256.28	6601.26
2010-11*	6926.45	7714.17
2011-12	9207.99	9740.08
2012-13	11766.70	12802.99
2013-14	10353.72	10962.46
2014-15	12417.69	13142.96
2015-16	15005.44	15635.62
2016-17	18516.75	19199.94

* Net Schedule includes TNEB share from RGCCPP