FIFTEENTH KERALA LEGISLATIVE ASSEMBLY

COMMITTEE

ON

PUBLIC UNDERTAKINGS
(2023-26)

SIXTY FOURTH REPORT

(Presented on 17th September, 2025)

SECRETARIAT OF THE KERALA LEGISLATURE
THIRUVANANTHAPURAM
2025

FIFTEENTH KERALA LEGISLATIVE ASSEMBLY

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SIXTY FOURTH ………………... REPORT

On

Malabar Cements Limited
&
Steel Industrials Kerala Limited

(Based on the Report of the Comptroller and Auditor General of India for the year ended 31st March 2019)

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COMMITTEE ON PUBLIC UNDERTAKINGS

(2023-26)

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INTRODUCTION

I, the Chairperson, Committee on Public Undertakings (2023-26) having been authorised by the Committee to present the Report on its behalf, present this ..64th... Report on Malabar Cements Limited & Steel Industrials Kerala Limited based on the report of the Comptroller and Auditor General of India for the year ended 31st March 2019 relating to the Public Sector Undertakings of the State of Kerala.

The aforesaid Report of the Comptroller and Auditor General of India was laid on the Table of the House on 10.06.2021. The consideration of the audit paragraphs included in this report and the examination of the departmental witness in connection thereto were made by the Committee on Public Undertakings (2023-2026) at its meetings held on 23.07.2024.

This Report was considered and approved by the Committee (2023-2026) at its meeting held on 09.09.2025.

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

The Committee wishes to express thanks to the officials of the Industries Department of the Secretariat, Malabar Cements Limited and Steel Industrials Kerala Limited for placing the materials and information solicited in connection with the examination of the subject. The Committee also wishes to thank in particular the Secretaries to Government, Industries and Finance Department and the officials of the Malabar Cements Limited and Steel Industrials Kerala Limited who appeared for evidence and assisted the Committee by placing their views before the Committee.

E. CHANDRASEKHARAN
Chairperson,
Committee on Public Undertakings.

Thiruvananthapuram,
17th September, 2025.

REPORT
ON
MALABAR CEMENTS LIMITED
&
STEEL INDUSTRIALS KERALA LIMITED

Audit Paragraph : 5.2 (2018-19)

Electrical energy management by Public Sector Undertakings in the manufacturing sector

Delay in conducting energy audit, failure to achieve specific energy consumption norms, non-availing of open access facility etc. led to extra expenditure and non-achievement of energy savings.

Energy[1] management activities in India are governed by the Energy Conservation Act, 2001 (Act). Government of Kerala (GoK) accords high priority to energy conservation and energy efficiency and issued guidelines (May/ November 1992) for conducting energy audit and directions (June 2015) to regulate energy consumption standards for equipment and appliances. Bureau of Energy Efficiency (BEE) is established under the Act to coordinate with designated consumers, designated agencies and others. Energy Management Centre (EMC) is the State Designated Agency to coordinate, regulate and enforce the provisions of the Act/guidelines/ directions.

A sample of nine[2] out of thirty Public Sector Undertakings (PSUs) functioning in the manufacturing sector was selected as per Stratified Random Sampling Method[3] for assessing the level of compliance to the Act/ guidelines/ directions and evaluating the implementation of energy conservation measures during the period 2016-17 to 2018-19. Audit findings in this regard are discussed below:

1 As per Section 2(h) of Energy Conservation Act, 2001, energy means any form of energy derived from fossil fuels, nuclear substances or materials, hydro-electricity and includes electrical energy or electricity generated from renewable sources of energy or bio-mass connected to the grid.

2 Travancore Cochin Chemicals Limited (TCCL), Malabar Cements Limited (MCL), The Kerala Minerals and Metals Limited (KMML), Kerala State Coir Machinery Manufacturing Company Limited (KSCMMCL), Travancore Titanium Products Limited (TTPL), Keltron Component Complex Limited (KCCL), Steel Industrials Kerala Limited (SILK), Sitaram Textiles Limited (STL) and Transformers and Electricals Kerala Limited (TELK).

3 Based on energy consumption bill data.

5.2.1 Delay in conducting energy audit

As per the GoK directions (1992/2015) read with Government Order (January 2011), all HT/EHT installations should conduct energy audit once in three years.

Audit observed that out of nine PSUs selected for audit, energy audit was not conducted in STL so far (October 2019). Though SILK conducted first energy audit in 2008, subsequent energy audits were not conducted till October 2019. In the case of remaining six[4] PSUs, delay ranging from 7 to 59 months was noticed in conducting the latest energy audit which was due between May 2012 and March 2019. The energy audit conducted by **MCL,** KMML and KSCMMCL did not include all their HT/EHT connections[5].

Regarding delay in conducting energy audit, the GoK replied (October/November/December 2020) that SILK planned to conduct energy audit during July 2020, which did not materialise due to Covid Pandemic situation.

Regarding not conducting energy audit of all the units, the PSUs replied that steps were initiated to conduct the energy audit of these units.

The fact, however, remains that non-conducting of energy audit or delay in conducting it would lead to delayed identification of areas for energy efficiency and conservation with probable energy savings. Further, as STL and SILK did not conduct any energy audit and KMML did not claim the subsidy though it conducted energy audits, these PSUs did not receive the subsidy[6] from EMC

Audit also noticed that EMC was appointed (January 2011) as the State Designated Agency to coordinate, regulate and enforce the provisions of the

4 TCCL, KMML, KSCMMCL, TTPL, KCCL and TELK. Since the last energy audit of MCL was conducted in April 2016, next audit was due in April 2019.

5 Mines at Walayar of MCL, Mineral Separation Unit and Titanium Sponge Plant of KMML and the administrative building of KSCMMCL.

6 EMC provides subsidy of ₹50,000 or 50 per cent of the cost incurred, whichever is less, to PSUs for conducting energy audit.

rules[7] in force. EMC, however, did not regularly monitor the conduct of energy audit and follow-up measures implemented by the PSUs.

EMC stated (July 2020) that empanelled energy auditors would be directed to incorporate details including status of implementation of previous energy audit and recommendations in energy audit report.

[Audit Paragraphs 5.2 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2019]

The Notes furnished by the Government on the audit paragraph are given in Appendix II

Discussion and Findings of the Committee

Malabar Cements Limited

To a query of the Committee, the Managing Director, Malabar Cements Limited, replied that energy audit for Extra High Tension installation in the mines were not conducted till 2019, but after the audit observation, energy audit is being conducted once in every three years and the next audit will be conducted in April 2025.

To another query of the Committee, the witness replied that energy audit is being conducted through a qualified agency which is selected through tenders. He added that as per the energy audit report submitted by the agency, appropriate actions are being taken to improve the energy efficiency and as a result the Ton of Oil Equivalent (TOE) has been reduced from 0.1155% to 0.1013% and also the company earns money in VIIth PAT Cycle.

The Committee enquired whether any study has been conducted to compare the energy audit of MCL with other companies. The witness replied that since MCL is working with a forty year old technology and very high energy consumption, it is not desirable to compare the energy audit

7 The Energy Conservation Act 2001, Guidelines issued by the GoK in May 1992 and November 1992 and the Directions issued by GoK in June 2015.

with that of other companies. He added that it is desirable to conduct the compatitive study only after the modernisation of the company.

The witness informed that about ₹100 crore is needed for the modernisation of the plant. He added that after the audit observation, tender proceedings were started for installing a multi channel burner of about ₹6 crore as per the direction of EMC and after that the plant could be changed from electrical energy to chemical energy.

The Committee enquired whether any scientific study has been conducted about the factors such as cost for modernisation and the income that could be earned after modernisation. The witness replied that National Council for Cement and Building Materials (NCCBM) has prepared a DPR of about ₹130 crore and as per that, the production cost could be reduced about 25%. He added that the estimated amount could be retrieved in seven and a half years and the machines could be used for about thirty years. To a query of the committee the witness replied that the proposal for modernisation of the plant has been submitted to the Government.

Based on the above discussion the Committee recommended to speed up the process of modernisation of the plant and to conduct a comparative study about the energy audit of the Company with that of other companies.

<u>Observation/Recommendation of the Committee</u>

1. ***The Committee observes that MCL had done energy audit through a qualified agency and as per the energy audit report submitted by the agency, MCL had taken appropriate actions for improving the energy efficiency. The Committee also observes that a proposal had been submitted to the Government for modernisation of the plant and thereby reducing the production cost by 25%. The estimated cost could be retrieved in seven and a half years and the machines could be used for about thirty years. Hence the Committee recommends to speed up the process of modernisation of the plant and to conduct a comparative study on the energy audit of the Company with that of other companies.***

Discussion and Findings of the Committee

Steel Industrials Kerala Limited (SILK)

The Committee enquired about the absence of Managing Director of SILK in the meeting. The Senior Manager replied that the Managing Director holds the additional charge of TCL and he has to appear before court in connection with a case related to TCL. But the Committee expressed its dissatisfaction stating that he could have informed the Committee about the matter earlier. The Senior Manager apologised to the Committee and ensured that such lapses would be avoided in future.

To the query of the Committee about the audit observation, the witness replied that the energy audit was conducted in 2021 and subsidy has also been obtained accordingly. He added that after the audit observation SILK conducted modernisation in two HT units by installing HT panels in place of electrical IIT LBS panels. He added that they have changed motors with energy efficient ones and installed push buttons in all machines and also systematized online metering system.

The witness further informed that modernisation was completed incorporating all the directions of energy audit with the support of the Government and have obtained sanction from Electrical Inspectorate on 01/03/2024. He added that power factor has been improved after modernisation.

The Committee accepted the reply. Hence no remarks.

Audit Para 5.2.2 - Non-achievement of specific energy consumption targets

As per Perform Achieve and Trade (PAT) Rules 2012[8], the designated consumers[9] are required to achieve specific energy consumption[10] target

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8 Energy Conservation (Energy Consumption Norms and Standards for Designated Consumers, Form, Time within which, and Manner of Preparation and Implementation of Scheme, Procedure for Issue of Energy Savings Certificate and Value of Per Metric Tonne of Oil Equivalent of Energy Consumed) Rules, 2012, which is known as PAT Rules, 2012.

9 Government of India notified consumers from 11 energy intensive sectors (i.e., Thermal power stations, Fertilisers, Cement, Iron and Steel, Chlor-Alkali, Aluminium, Railways, Textile, Pulp and Paper, Petroleum Refinery and Electricity Distribution Company) as designated consumers. Out of nine PSUs selected for audit, TCCL (Chlor-Alkali) and MCL (Cement) are designated consumers.

10 Specific energy consumption refers to all the energy used to perform an action or manufacture something. In a factory, total energy consumption can be measured by looking at how much energy a production process consumes.

over a cycle of three years. Any shortfall in achieving the target is compensated by purchasing required number of Energy Savings Certificates (ESCerts). As per Section 26 of the Energy Conservation Act, 2001, non-compliance of the above would attract a penalty of ₹10 lakh in addition to ₹10,000 per day for continued failures. The performance of the designated consumers, MCL and TCCL, under PAT cycle-I (1 April 2012 to 31 March 2015) and PAT cycle-II (1 April 2016 to 31 March 2019) was examined in audit.

Audit noticed that **MCL** failed to achieve the specific energy consumption target of 0.1050 and 0.1011 Ton of Oil Equivalent (TOE) per ton of finished product in PAT cycle-I and PAT cycle-II respectively. As a result, MCL has a liability to purchase 16,522 nos. (3,958 nos. for PAT cycle-I and 12,564 nos. for PAT cycle-II) of ESCerts costing ₹74.35 lakh[11] . Since **MCL** did not purchase any ESCerts so far (December 2019), it was also liable to pay penalty of ₹60.80 lakh[12] as per Section 26 of the Energy Conservation Act, 2001. Further, the non-achievement of specific energy consumption norms resulted in excess consumption of fuel amounting to ₹80.05 crore[13] for the PAT cycle-II (1 April 2016 to 31 March 2019).

The GoK replied (November 2020) that MCL could not achieve capacity utilisation due to interruptions in continuous running of plant caused by external factors like sluggish market demand which affected the energy efficiency of the entire plant.

The reply was, however, silent as to why MCL did not approach BEE for revising the target, citing unfavourable market conditions. Further, MCL did not purchase ESCerts even after receiving directions (November 2017) from EMC in this regard.

11 As per the last traded rate of ₹450 per ESCerts at Indian Energy Exchange, the liability amounts to ₹17.81 lakh in PAT cycle-I and ₹56.54 lakh for PAT cycle-II.

12 ₹60.80 lakh = ₹10 lakh + ₹10,000 x 508 days.

13 Calculated based on the average cost of High Speed Diesel in 2017-18.

[Audit Paragraphs 5.2.2 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2019]

The Notes furnished by the Government on the audit paragraph are given in Appendix II

<u>Discussion and Findings of the Committee</u>

<u>Malabar Cements Limited</u>

To a query of the Committee about the audit observation, the witness replied that energy consumption was very high in the year 2019 in which audit was conducted and they have to purchase Energy Savings Certificates for PAT Cycle-1 and PAT Cycle-II. He added that after the audit observation, corrective measures were taken and proposed energy consumption targets have been achieved and they earned 5552 credit points for PAT Cycle-VII.

The Committee enquired whether the Company had to pay penalty for violating the energy consumption norms. The witness replied that when they submitted request for purchasing Energy Savings Certificates, EMC informed that option time was over for PAT cycle I and II and they allowed MCL to purchase the certificates in PAT cycle III. So they are expecting that penalty would have been avoided. The Senior Audit Officer also informed that MCL has now achieved the Energy Consumption targets.

The Committee accepted the reply. Hence no remarks.

Audit Para 5.2.3 - Excess power consumption by non-designated PSUs

In the case of non-designated PSUs, Audit reviewed the existence of power consumption norms and power consumption pattern against such norms, if any.

Audit observed that four[14] out of seven PSUs did not fix any norms for power consumption. In the case of remaining three[15] PSUs, the consumption of power was higher than the norm fixed by them. The excess power consumption over the norms ranged between 0.47 per cent (TTPL) and 13.90 per cent (KMML) during 2016-17 to 2018-19. This resulted in extra expenditure of ₹11.36[16] crore.

[Audit Paragraphs 5.2.3 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2019]

The Notes furnished by the Government on the audit paragraph are given in Appendix II

Discussion and Findings of the Committee

Steel Industrials Kerala Limited (SILK)

The Committee enquired about the audit observation that SILK did not fix any norms for power consumption. The witness replied that the energy cycle of SILK is 13/kg in place of the required rate of 11.5/kg and assured that minimum criteria could be achieved with the increase in orders and quantity of production. He added that norms for energy consumption has been fixed after the audit observation but the Senior Audit Officer informed that the report regarding the same has not been received yet.

The Committee recommended to furnish a report detailing the actions taken to fix the norms for power consumption after the audit observation.

Observation/Recommendation of the Committee

2. The Committee observes that the Audit was not informed of the fixing of criteria for energy consumption. So the Committee recommends to furnish a report detailing the actions taken to fix the norms for power consumption after the audit observation.

14 KSCMMCL, TELK, SILK and KCCL.
15 KMML, TTPL and STL.
16 KMML (₹10.87 crore), TTPL (₹33.96 lakh) and STL (₹14.55 lakh).

Audit Para 5.2.4 - Non-utilisation of open access facility for purchase of power

As per Section 42 of the Electricity Act 2003, Kerala State Electricity Regulatory Commission introduced (2013) open access scheme enabling the electricity users having more than 1 MW connected load to avail the benefits of cheap power by purchasing it from the open market.

Audit noticed that out of seven PSUs[17] which were eligible to avail the open access facility, only two PSUs, KMML and TCCL, utilised the facility from 2015-16 and 2017-18 onwards respectively. There were savings of ₹13.37 crore to KMML and ₹8.72 crore to TCCL on account of purchasing power using the open access facility up to 2018-19.

Out of the remaining five PSUs, three PSUs, **MCL**, TTPL and TELK, had EHT connections and there was scope for availing power through open access facility to minimise the cost of power.

5.2.4.1 - Audit noticed that MCL applied for no objection certificate from Kerala State Electricity Board Limited (KSEBL) in April 2013. But, instead of pursuing the application pending with KSEBL, MCL initiated (August 2013) steps for obtaining legal opinion on an agreement proposed to be entered into with Power Trading Corporation of India for purchasing power through open access. The legal opinion was received only in April 2017. **MCL** lost four years in obtaining the legal opinion and took another two years for obtaining no objection certificate from KSEBL, which was received only in July 2019. Power purchase through open access could be commenced only from November 2019 onwards. As per information furnished by MCL, though the plant was not running full-fledged, it could

17 MCL, TCCL, KMML, TELK, TTPL, KCCL and STL.

achieve savings of ₹2.75 lakh for the month of November 2019 by using the open access facility.

The GoK replied (November 2020) that MCL applied for NOC and waited for the NOC in good faith. But, there was delay from KSEBL in giving the NOC which could be realised in later years. The legal opinion was obtained only to ensure correctness of the proposed agreement.

The reply was not tenable as it was silent on why MCL waited for four years (April 2013 to April 2017) for obtaining the legal opinion instead of pursuing the application pending with KSEBL for the NOC. During this period, MCL did not take any steps to comply with the directions (April 2013) of KSEBL for installation of required meters and other facilities. This was also confirmed by the Managing Director in an exit meeting with the audit team. Considering the benefit of ₹2.75 lakh achieved in November 2019 when the plant was not running full-fledged, MCL lost an opportunity to save ₹1.32 crore for these four years.

[Audit Paragraphs 5.2.4 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2019]

The Notes furnished by the Government on the audit paragraph are given in Appendix II

<u>Discussion and Findings of the Committee</u>

<u>Malabar Cements Limited</u>

When the Committee enquired about the audit observation, the witness replied that MCL had applied for No Objection Certificate in 2013 itself. But in May 2013, as per the ruling of Regulatory Commission, it was made mandatory that the Company could access the power only after installing interface meter, current transformer and power transformer. He added that the first reason for the delay in using open access facility was the delay in obtaining NOC from KSEBL. Secondly when the meter testing authority of KSEBL conducted the testing, faults were found in the integration time span and the meters were sent back to the Company as they could not resolve the defects. All these procedural lapses delayed the purchase of electricity through open access system.

The Committee vehemently criticized the Company for the delay in utilizing the open access system. The Committee observed that earlier there was no permission to purchase electricity through open access system and the permission for the same was granted by the effective intervention of Industries Department but the Company made much delay in utilizing the facility which in turn led the Company to loss. The Committee enquired why the department is not interfering in the matter. The Industries Department Official admitted that there was serious lapse in following up the matter with KSEBL.

The Committee observed that the cost of electricity in the open market was much less at that time but both the Company and the department took the matter in a lighter vein and made serious lapse in taking effective steps to purchase electricity. The Committee opined that if the Company was able to utilize the open access facility it might have led the Company to profit. The Committee expressed its strong discontent on the inexcusable delay made by the Company and the department in utilizing the open access facility at the right time.

Observation/Recommendation of the Committee

3. ***The Committee vehemently criticizes the Company for the delay in utilizing the open access system. The Committee observes that the cost of electricity in the open market was much less at that time but both the Company and the department took the matter in a lighter vein and made serious lapse in taking effective steps to purchase electricity. The Committee opines that if the Company was able to utilize the open***

access facility it might have led the Company to profit. The Committee expresses its strong discontent on the inexcusable delay made by the Company and the department in utilizing the open access facility at the right time.

Audit Para 5.2.5 - Non-implementation of solar power projects

The Budget Speech 2013-14 of the GoK encouraged the PSUs to set up solar energy units. GoK also issued directions (July/December 2013) to six[18] out of nine PSUs selected for audit to implement solar energy units.

Audit observed that four[19] out of the six PSUs set up solar energy units as directed by GoK. In the case of the remaining two PSUs, TELK did not take any steps to comply with the directions of the GoK. KMML did not implement the solar energy unit as it was not financially viable (2014) and due to closure (2018) of a scheme for roof top solar project under Renewable Energy Service Company (RESCO) model[20] implemented by Solar Energy Corporation of India Limited. Audit noticed that implementation of solar energy project would have reduced the liability of KMML towards purchase of Renewable Energy Certificates for fulfilling Renewable Purchase Obligation [21].

It was further noticed that MCL failed to claim subsidy of ₹six lakh[22] from Ministry of New and Renewable Energy (MNRE) for implementing the solar energy project. After it was pointed out by Audit, MCL claimed (October 2019) the same, which was yet to be received.

The GoK replied (November 2020) that there was no intentional delay on KMML's part in implementing the solar project. Further, MCL was not eligible for MNRE subsidy as it comes under industrial building under State PSU.

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18 KMML, MCL, TELK, TTPL, TCCL and STL.
19 MCL, TTPL, STL and TCCL.
20 Under this model, there is no capital investment by KMML and regular upkeep of the facility will be done by the supplier for 25 years.
21 As per Kerala State Electricity Regulatory Commission (Renewable Energy) Regulations, 2015, 2017 and 2019, KMML was liable to purchase Renewable Energy Certificates for a certain percentage (ranged from 4.50 per cent to 12 per cent) of the total energy availed through open access from renewable sources.
22 Cost capital subsidy of 30 per cent of the project cost limited to ₹30 per Watt peak for Photovoltaic Systems without battery backup.

However, as per the notification (November 2015) of MNRE, subsidy was not available to commercial and industrial buildings of the private sector but was available for an industrial building under a State PSU. In the case of other PSUs, they were yet to comply with the direction (2013) of the GoK.

[Audit Paragraphs 5.2.5 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2019]

The Notes furnished by the Government on the audit paragraph are given in Appendix II

Discussion and Findings of the Committee

Malabar Cements Limited

The Committee enquired about the audit observation that MCL failed to obtain subsidy from MNRE for implementing solar energy project. The witness replied that it was informed by MNRE that MCL is not eligible for MNRE subsidy as it comes under industrial building under state PSU. He added that a solar power plant of 20 KWp was installed on the roof of the company which was surrounded by thick forest and the plant has only 40% efficiency due to the presence of dust from the factory. Then the Committee directed MCL to examine the possibility of installing wind power unit.

Observation/Recommendation of the Committee

4. ***The Committee observes that MCL failed to obtain subsidy from MNRE for implementing solar energy project as it comes under industrial building under state PSU and also observes that a solar power plant of 20 KWp was installed on the roof of the Company surrounded by thick forest and has only 40% efficiency due to the presence of dust from the factory . Hence the Committee directs MCL to examine the possibility of installing wind power unit.***

Audit Para 5.2.6 - Lapses in energy requirement planning and efficiency improvement measures

As per the tariff orders of KSEBL approved by the Kerala State Electricity Regulatory Commission, 75 per cent of the Contract Demand (CD) or the actual Recorded Maximum Demand (RMD) whichever is higher is considered as the billing maximum demand. If the RMD exceeds the CD, RMD is billed at 1.5 times. The tariff orders from time to time also provide for incentives[23] to HT and EHT consumers for power factor[24] (PF) improvement. An increase in PF above 0.90 would thus reduce energy charges. If the PF falls below 0.90, one per cent of energy charges for reduction of every 0.01 unit is charged in addition to the applicable charges.

5.2.6.2 - Analysis also revealed that seven PSUs[25] achieved PF above 0.90 in all the three years (total eight connections). Out of this, TCCL obtained PF incentive of 10 points for 34 months and nine points for two months. In the remaining five connections, three PSUs (KMML-2, KSCMMCL-2 and **SILK-**1) paid penalty of ₹7.21 lakh during this period for reduction in PF below 0.90. Continued reduction in the PF and payment of penalty indicated that the PSUs failed to investigate the reasons for poor PF and take remedial action. Though the energy audit report recommended (April 2018) replacement of capacitor in one of the HT connections, KMML replaced the capacitor only in June 2019 despite paying penalty for PF reduction on a regular basis.

The GoK and PSUs (January/ October 2020) replied that steps were being taken to improve the power factor.

23 0.50 per cent vide Kerala Gazette Order No. 782 dated 21/04/2017, 0.25 per cent vide Kerala Gazette Order No. 1305 dated 28/11/2012, No. 2652 dated 9/9/2013 and No. 2379 dated 27/09/2014.

24 Power Factor (PF) expresses the ratio of true power used in a circuit to the apparent power delivered to the circuit.

25 TCCL, MCL, TTPL, TELK, KCCL, SILK (one connection) and STL.

Recommendation 5.2: The GoK/PSUs may accord priority for undertaking timely energy audit, to identify energy efficiency and conservation areas including availing open access facility in order to achieve efficient use of energy. A senior management level oversight mechanism may be contemplated to monitor the achievement in this regard.

[Audit Paragraphs 5.2 contained in the Report of the Comptroller and Auditor General of India for the year ended 31st March 2019]

The Notes furnished by the Government on the audit paragraph are given in Appendix II

<u>Discussion and Findings of the Committee</u>

<u>Steel Industrials Kerala Limited (SILK)</u>

The Committee enquired about the audit observation that SILK paid penalty for the reduction in PF below 0.90. The witness replied that currently the PF has been improved ie 0.92 in one unit and 0.99 in the other unit.

The Committee criticized SILK for the delay in furnishing the reply. The witness apologised to the committee for the same.

The Committee accepted the reply, hence no remarks

E. Chandrasekharan
Chairperson
Committee on Public Undertakings

Thiruvananthapuram,
17th September, 2025.

APPENDIX – I
SUMMARY OF MAIN CONCLUSIONS/RECOMMENDATIONS

Sl. No.	Para. No.	Department Concerned	Conclusions/Recommendations
1	1	Industries	The Committee observes that MCL had done energy audit through a qualified agency and as per the energy audit report submitted by the agency, MCL had taken appropriate actions for improving the energy efficiency. The Committee also observes that a proposal had been submitted to the Government for modernisation of the plant and thereby reducing the production cost by 25%. The estimated cost could be retrieved in seven and a half years and the machines could be used for about thirty years. Hence the Committee recommends to speed up the process of modernisation of the plant and to conduct a comparative study on the energy audit of the Company with that of other companies.
2	2	Industries	The Committee observes that the Audit was not informed of the fixing of criteria for energy consumption. So the Committee recommends to furnish a report detailing the actions taken to fix the norms for power consumption after the audit observation.
3	3	Industries	The Committee vehemently criticizes the Company for the delay in utilizing the open access system. The Committee observes that the cost of electricity in the open market was much less at that time but both the Company and the department took the matter in a lighter vein and made serious lapse in taking effective steps to purchase electricity. The Committee opines that if the Company was able to utilize the open access facility it might have led the Company to profit. The Committee expresses its strong discontent on the inexcusable delay made by the Company and the department in utilizing the open access facility at the right time.

4	4	Industries	The Committee observes that MCL failed to obtain subsidy from MNRE for implementing solar energy project as it comes under industrial building under state PSU and also observes that a solar power plant of 20 KWp was installed on the roof of the Company surrounded by thick forest and has only 40% efficiency due to the presence of dust from the factory. Hence the Committee directs MCL to examine the possibility of installing wind power unit.

Action Taken Report on Para 5.2 in the C&AG Report on PSUs for the year ended on 31 March 2019

Sl.No.	Para No.	Recommendation	Reply from SILK
1	5.2	Electrical energy management by Public Sector Undertakings in the manufacturing sector. Delay in conducting energy audit, failure to achieve specific energy consumption norms, non-availing of open access facility etc. led to extra expenditure and non-achievement of energy savings.	SILK had conducted Energy Audit in 2008 through Kerala State Productivity Council; energy audit during the year 2020, didn't materialize due to Covid-19 Pandemic situation. The units of SILK which requires mandatory energy audit are Foundary Unit, Ottapalam and General Engineering Works, Thuravoor with HD connection. In January 2021 Energy Audit was conducted for these two units through Athul Energy Consultants Pvt.Ltd, Thrissur. Certificate was issued by Director, Energy Management Centre, Kerala to the company.

K. ASOKAN
Additional Secretary
Industries Department
Govt. Secretariat
Thiruvananthapuram

Action Taken Report on Para 5.2.3 and 5.2.6 in the C&AG Report on PSUs for the year ended on 31 March 2019

Sl. No.	Para No.	Recommendation	Reply from SILK
1	5.2.3	**Excess Power consumption by nondesignated PSUs.** Audit observed that four out of seven PSUs did not fix any norms for power consumption.	SILK will have taken steps for fixing norms and patterns for power consumption after completing modernisation works.
2	5.2.6	**Lapses in energy requirement planning and efficiency improvement measures.** 5.2.6.2 Analysis also revealed that seven PSUs achieved PF above 0.90 in all the three years (total eight connections). Out of this, TCCL obtained PF incentive of 10 points for 34 months and nine points for two months. In the remaining five connections, three PSUs (KMML -2, KSCMMCL - 2 and SILK-1) paid penalty of ₹7.21 lakh during this period for reduction in PF below 0.90. Continued reduction in the PF and payment of penalty indicated that the PSUs failed to investigate the reasons for poor PF and take remedial action. Though the energy audit report recommended (April 2018) replacement of capacitor in one of the HT connections, KMML replaced the capacitor only in June 2019 despite paying penalty for PF reduction on a regular basis.	For improving the PF, steps are taken for replacing the APFC panel (Active Power Factor Control Panel) currently existing in the Foundary Unit by a new APFC panel.

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ACTION TAKEN REPORT FURNISHED BY THE INDUSTRIES DEPARTMENT ON PARA 5.2 IN THE REPORT OF C&AG ON PUBLIC SECTOR UNDERTAKINGS FOR THE YEAR ENDED ON 31.3.2019, RELATED TO THE MALABAR CEMENTS LIMITED

Para No	Audit Para	Reply
5.2.1	Delay in conducting energy audit As per the GoK directions (1992/2015) read with Government Order (January 2011), all HT/EHT installations should conduct energy audit once in three years. Audit observed that out of nine PSUs selected for audit, energy audit was not conducted in STL so far (October 2019). Though SILK conducted first energy audit in 2008, subsequent energy audits were not conducted till October 2019 in the case of remaining six PSUs, delay ranging from 7 to 59 months was noticed in conducting the latest energy audit which was due between May 2012 and March 2019. The energy audit conducted by MCL, KMML and KSCMMCL did not include all their HT/EHT connections. Regarding delay in conducting energy audit, the GoK replied (October/ November/December 2020) that SILK planned to conduct energy audit during July 2020, which did not materialise due to Covid-Pandemic situation. TCCL conducted the energy audit only in February 2019 due to selecting energy auditor from the BEE's empanelled list. Further, KMML and TTPL had initiated steps for conducting the energy audit for its units. KCCL missed one energy audit due to retirement of key personnel and STL would take immediate steps to conduct energy audit. TELK replied (September 2020) that the energy audit was conducted and report submitted to EMC in September 2020. Regarding not conducting energy audit of all the units, the PSUs replied that steps were initiated to conduct the energy audit of these units.	MCL has conducted Energy Audit for the left out HT Consumer connection at Mines in July 2020 by M/s Athul Energy Consultants Pvt. Ltd. Thrissur. The energy audits in other units have already been carried out earlier.

	The fact, however, remains that non-conducting of energy auditor delay in conducting it would lead to delayed identification of areas for energy efficiency and conservation with probable energy savings. The reply of GoK regarding TCCL was not correct as the delay was due to failure of the PSU to ensure technical qualification of the L1 firm before opening the price bid which led to cancellation of the tender. Further, as STL and SILK did not conduct any energy audit and KMML did not claim the subsidy though it conducted energy audits, these PSUs did not receive the subsidy from EMC. Audit also noticed that EMC was appointed (January 2011) as the State Designated Agency to coordinate, regulate and enforce the provisions of the rules in force. EMC, however, did not regularly monitor the conduct of energy audit and follow up measures implemented by the PSUs. EMC stated (July 2020) that empanelled energy auditors would be directed to incorporate details including status of implementation of previous energy audit and recommendations in energy audit report.	
5.2.2	Non-achievement of specific energy consumption targets As per Perform Achieve and Trade (PAT) Rules 2012, the designated consumers are required to achieve specific energy consumption target over a cycle, of three years. Any shortfall in achieving the target is compensated by purchasing required number of Energy Savings Certificates (ESCerts). As per Section 26 of the Energy Conservation Act, 2001, non-compliance of the above would attract a penalty of Rs.10 lakh in addition to Rs.10,000 per day for continued failures. The performance of the designated consumers, MCL and TCCL, under PAT cycle-I (1 April 2012 to 31 March 2015) and PAT cycle-II (1 April 2016 to 31 March 2019) was examined in audit. Audit noticed that MCL failed to achieve the specific energy consumption target of 0.1050 and 0.1011 Ton of Oil Equivalent (TOE) per ton of finished product in PAT cycle-I and PAT cycle-II respectively. As a result,	Due to sluggish market, heavy rain and flood, the company could not achieve its full capacity utilisation. Though MCL had received a letter from EMC regarding the purchase of ESCerts in November 2017, the check verification audit to ascertain the number of certificates to be purchased by MCL for PAT Cycle 1 was carried out by BEE designated energy audit firm only in December 2018. And by this time the trading of ESCerts was stopped. Thus MCL could not purchase any ESCerts for PAT Cycle 1. Thus MCL is not liable for any penalty as ESCerts were not available for trading. The matter is taken up with EMC and BEE. Regarding the purchase of ESCerts for PAT Cycle 2, BEE has requested MCL to do the required

	MCL has a liability to purchase 16,522 nos. (3,958 nos. for PAT cycle-I and 12,564 nos. for PAT cycle-II) of ESCerts costing Rs.74.35 lakh. Since MCL did not purchase any ESCerts so far (December 2019), it was also liable to pay penalty of Rs.60.80 lakh as per Section 26 of the Energy Conservation Act, 2001. Further, the non-achievement of specific energy consumption norms resulted in excess consumption of fuel amounting to Rs.80.05 crore for the PAT cycle-II (1 April 2016 to 31 March 2019). The GoK replied (November 2020) that MCL could not achieve capacity utilisation due to interruptions in continuous running of plant caused by external factors like sluggish market demand which affected the energy efficiency of the entire plant. The reply was, however, silent as to why MCL did not approach BEE for revising the target, citing unfavourable market conditions. Further, MCL did not purchase ESCerts even after receiving directions (November 2017) from EMC in this regard.	registration in August 2021. Accordingly MCL have applied for the same. BEE has also informed that trading of ESCerts for PAT Cycle 2 has not yet started.
5.2.4.1	Audit noticed that MCL applied for no objection certificate from Kerala State Electricity Board Limited (KSEBL) in April 2013. But, instead of pursuing the application pending with KSEBL, MCL initiated (August 2013) steps for obtaining legal opinion on an agreement proposed to be entered into with Power Trading Corporation of India for purchasing power through open access. The legal opinion was received only in April 2017. MCL lost four years in obtaining the legal opinion and took another two years for obtaining no objection certificate from KSEBL, which was received only in July 2019. Power purchase through open access could be commenced only from November 2019 onwards. As per information furnished by MCL, though the plant was not running full-fledged, it could achieve savings of Rs.2.75 lakh for, the month of November 2019 by using the open access facility. The GoK replied (November 2020) that MCL applied for NOC and waited for the NOC in good faith. But, there was delay from KSEBL in giving the	The delay was on account of getting clearance from KSEBL. MCL is able to avail the open access power w.e.f. November 2019 and could reduce its power consumption cost to the tune of Rs.60 lakhs till date.

	NOC which could be realised in later years. The legal opinion was obtained only to ensure correctness of the proposed agreement. The reply was not tenable as it was silent on why MCL waited for four years (April 2013 to April 2017) for obtaining the legal opinion instead of pursuing the application pending with KSEBL for the NOC. During this period, MCL did not take any steps to comply with the directions (April 2013) of KSEBL for installation of required meters and other facilities. This was also confirmed by the Managing Director in an exit meeting with the audit team. Considering the benefit of Rs.2.75 lakh achieved in November 2019 when the plant was not running full-fledged, MCL lost an opportunity to save Rs.1.32 crore for these four years.	
5.2.5	Non-implementation, of solar power projects The Budget Speech 2013-14 of the GoK encouraged the PSUs to setup solar energy units GoK also issued directions (July/December 2013) to six out of nine PSUs selected for audit to implement solar energy units. Audit observed that four out of the six PSUs set up solar energy units as directed by GoK. In the case of the remaining two PSUs, TELK did not take any steps to comply with the directions of the GoK. KMML did not implement the solar energy unit as it was not financially viable (2014) and due to closure (2018) of a scheme for roof top solar project under Renewable Energy Service Company (RESCO) model implemented by Solar Energy Corporation of India Limited. Audit noticed that implementation of solar energy project would have reduced the liability of KMML towards purchase of, Renewable Energy Certificates for fulfilling Renewable Purchase Obligation. It was further noticed that MCL failed to claim subsidy of rupees six lakh from Ministry of New and Renewable Energy (MNRE) for implementing the solar energy project. After it was pointed out by Audit, MCL claimed (October 2019) the same, which was yet to be received.	MCL has implemented a solar power plant of 20 KWP in July 2014. MCL conducted feasibility study to enhance the capacity of the above. But the report said that due to plant buildings located in Forest and dusty atmosphere will not be economically viable.

	The GoK replied (November 2020) that there was no intentional delay on KMML' s part in implementing the solar project. Further, MCL was not eligible for MNRE subsidy as it comes under industrial building under State PSU. TELK replied (September 2020) that the possibilities of implementing rooftop solar project were being explored. However, as per the notification (November 2015) of MNRE, subsidy was not available to commercial and industrial, buildings of the private sector but was available for an industrial building under a State PSU. In the case of other PSUs, they were yet to comply with the direction (2013) of the GoK.	

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GOVERNMENT OF KERALA
INDUSTRIES DEPARTMENT
REMEDIAL MEASURES TAKEN REPORT ON PARA 5.2.4 IN THE REPORT OF C&AG ON PUBLIC SECTOR UNDERTAKINGS FOR THE YEAR ENDED ON 31.3.2019
MALABAR CEMENTS LIMITED

Para No.	Audit Para	Remedial Measures Taken
5.2.4	Non- utilisation of open access facility for purchase of power As per Section 42 of the Electricity Act 2003, Kerala State Electricity Regulatory Commission introduced (2013) open access scheme enabling the electricity users having more than 1MW connected load to avail the benefits of cheap power by purchasing it from the open market. Audit noticed that out of seven PSUs which were eligible to avail the open access facility, only two PSUs, KMML and TCCL, utilised the facility from 2015- 16 and 2017-18 onwards respectively. There were savings of Rs.13.37 crore to KMML and Rs.8.72 crore to TCCL on account of purchasing power using the open access facility up to 2018-19.The GoK confirmed (December 2020) that STL did not initiate steps for availing open access facility for purchase of power. KCCL would explore the possibilities of utilisation of open access facility. Out of the remaining five PSUs,three PSUs, MCL, TTPL and TELK, had EHT connections and there was scope for availing power through open access facility to minimise the cost of power.	Malabar Cements Limited initiated steps to avail open access in June 2013 after obtaining board approval. As exemption for installation of interfacing meters for availing open access expired in May 2013, MCL had to procure interfacing meters and certain other equipments to avail open access power purchase. Apart from this, the KSERC also published its Open Access Regulations 2013on 10.09.2013 where in lot of procedural changes were mentioned which had to be clarified before availing the open access power. Simultaneously MCL had taken action for obtaining legal opinion for signing the contract with PTC. After clarification of the procedures to avail open access, MCL started implementation of the scheme in the year 2016. The sequence of events is given below in a chronological order. 1. In 2016 MCL asked KSEBL to give the specification of Availability Based Tariff (ABT) meter. Meanwhile MCL also raised purchase requisitions for purchase of Current Transformers,Potential Transformers and other accessories on 25.11.2016.

		2. The specification of ABT meter was received on 22.02.2017 and purchase requisition for the same was raised immediately. The CT/PTs were received on 08.08.2017 and ABT meters were received in October 2017. 3. After receipt of ABT meters, the test reports were sent to KSEBL. Then KSEBL informed MCL to reduce the integration time of ABT meters from 30 minutes to 15 minutes. The matter was taken up with the supplier and they arranged the OEM of the meter to rectify the same. 4. The ABT meter was finally calibrated as per requirement of KSEBL in March 2018 at the Testing of Meters & Relays Division of KSEBL at Angamaly. The same was returned to MCL in May 2018. 5. MCL sent letter to KSEBL on 25.05.2018 for installation and commissioning of ABT meters and CT/PT units in MCL in the presence of KSEBL authorities. 6. In August 2018 KSEBL informed MCL to re-test the CT in the presence of KSEBL authorities as the test certificate produced by MCL from Suppliers was not acceptable to them. The tests were again carried out in the presence of KSEBL officials. 7. After obtaining of new test certificate on 08.03.2019, MCL requested for installation and commissioning of the required instruments at

		MCL in the presence of KSEBL authorities. The CT/PT units and ABT were finally installed on 03.07.2019. 8. MCL entered agreement with PIC India Ltd on 18.07.2019 for purchase of Open Access power through power exchanges. 9. MCL then applied for NOC for purchase of open access power and started to purchase the power from November 2019.

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