FIFTEENTH KERALA LEGISLATIVE ASSEMBLY

COMMITTEE

ON

PUBLIC UNDERTAKINGS
(2023-26)

........22nd.......... **REPORT**

(Presented on ...01.02.2024....)

SECRETARIAT OF THE KERALA LEGISLATURE

THIRUVANANTHAPURAM

2024

FIFTEENTH KERALA LEGISLATIVE ASSEMBLY

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On

The Kerala Minerals and Metals Limited

(Based on the Reports of the Comptroller and Auditor General of India for the years ended 31st March, 2017 and 2019)

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COMMITTEE ON PUBLIC UNDERTAKINGS (2023-26)

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* 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 its behalf, present this ..22nd..... Report on The Kerala Minerals and Metals Limited based on the reports of the Comptroller and Auditor General of India for the years ended 31st March, 2017 and 2019 relating to the Public Sector Undertakings of the State of Kerala.

The aforesaid Reports of the Comptroller and Auditor General of India were laid on the Table of the House on 19-06-2018 and 10-06-2021 respectively. The Reports, besides other things in their findings, brought to light some functional irregularities relating to the Kerala Minerals and Metals Limited. The Committee, in connection with the perusal of the reports, took notice of the comparability of the audit paragraphs pertaining to such irregularities and decided to examine them altogether. 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 (2021-2023) at its meeting held on 06-10-2022.

This Report was considered and approved by the Committee (2023-26) at its meeting held on 22.12.2023.

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 Government Secretariat and the Kerala Minerals and Metals 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 Kerala Minerals and Metals Limited who appeared for evidence and assisted the Committee by placing their views before the Committee.

E. CHANDRASEKHARAN
Chairman,
Committee on Public Undertakings.

Thiruvananthapuram,
..01...02...*2024*

REPORT

Report on Kerala Minerals and Metals Limited

Audit para 4.6 (2016-17)

4.6 Extra expenditure in procurement of paper packing bags

Extra expenditure of ₹41.20 lakh in procurement of paper packing bags due to limiting the order quantity of the lowest bidder while simultaneously procuring at higher rates from other bidders.

According to the directions[1] of Central Vigilance Commission (CVC), the tendered quantity can be split among bidders other than the lowest bidder, only if the lowest bidder is incapable of supplying the full quantity. Items of critical or vital nature can be sourced from more than one source if the ratio of splitting is pre-disclosed in the tender itself. CVC also emphasised that conditions in the tender did not authorise tender accepting authority to take decisions in an arbitrary manner.

The Kerala Minerals and Metals Limited (Company), engaged in manufacture and sale of titanium dioxide pigment, invited (June 2014) two-part (technical and commercial parts) global e-tenders for procurement of six lakh multiwall box type[2] paper packing bags (paper bags). Three bidders submitted bids and all were technically qualified. Price bids were opened on 03 November 2014 and the standing of the three bidders were as given in Table 4.12:

Table 4.12: Standing of bidders on opening of the price bids

Sl. No.	Name of bidder	Landed cost per bag (₹)
1	B&A Packaging India Limited, Odisha (B&A Packaging)	36.76 (L1)

1 Circular No. 4/3/2007 dated 3 March 2007.

2 Paper bag (value/box)of size 550mm(Length)X470mm(Height)suitable for use on Haver Integra Bagging Machine.

2	Dy-Pack Verpackungen Guztav Dyckerhoff GmbH, Germany (Dy-Pack)	47.19 (L2)
3	Mondi Bags Austria GmbH, Austria (Mondi Bags)	48.04 (L3)

(Source: Data collected from the Company)

The Company placed (5 December 2014) purchase orders on B&A Packaging for one lakh paper bags at the rate of ₹36.76 per bag. Balance five lakh paper bags were procured from Dy-Pack (3.36 lakh paper bags) and Mondi Bags (1.64 lakh paper bags) at the negotiated rate of ₹45 per bag (landed cost). Decision to restrict the quantity to be purchased from B&A Packaging was taken (October 2014) by Managing Director of the Company on the ground that the firm was a new entrant and hence, was in trial stage.

Audit observed that B&A Packaging was technically qualified in the tender and hence, supply orders were not deniable on quality issues. Denial of full ordered quantity on the ground that B&A Packaging was in the trial stage was also unjustifiable because the Company procured 500 bags in December 2013 as trial and another 25,400 bags (August 2014) for bulk trial from them. Both the trials were found satisfactory (01 December 2014). Three officials of the Company also visited (14 October 2014) the factory of B&A Packaging to assess their capability and production facility and reported (18 October 2014) that it had sufficient production capacity[3] . Ignoring all these matters, the Company restricted the quantity of order for B&A Packaging to one lakh paper bags and procured balance five lakh paper bags from Dy-Pack and Mondi Bags at higher rates, which resulted in extra expenditure of ₹41.20 lakh (5 lakh bags x ₹8.24).

Audit also observed that at the time of placing purchase orders (December 2014), the stock of paper bags was 2.43 lakh and the number of bags used per month during June 2014 to December 2014 ranged between 0.22 lakh (August 2014) and 0.74 lakh (October 2014). Thus it can be observed that there was no urgency for procurement of paper bags from L2 and L3 bidders.

3 Total production capacity of 3.50 crore bags per year and utilised capacity upto 1.8 crore bags per year as against the company's requirement of 6 lakh bags.

Government of Kerala (GoK) replied (March 2017) that the officials of the Company who visited the factory of B&A Packaging reported (18 October 2014) that looking at the technical capabilities, order of one lakh bags may be placed on the firm. Moreover, feedback from end users of the trial order of 25,400 procured from B&A Packaging was still awaited and thus, the Company was not sure about the quality of these bags. Considering the uncertainty in quality, the Company gave orders to L2 and L3 who were established manufacturers. It was further replied that the tender conditions provided for placement of orders on one or more bidders and accordingly, order for balance supply was split between L2 and L3.

Reply of GoK was not acceptable due to the following reasons:

- The officials of the Company who visited the factory of B&A Packaging reported (18 October 2014) that it had sufficient production capacity. They only suggested to give a part order to this firm and increase the quantity of order based on feedback from customers during the part supply period, which was permissible as per conditions of tender. This, in no way justified splitting of the tendered quantity among other bidders. Further, B&A Packaging quoted for supplying the entire tendered quantity of six lakh bags and had at no stage expressed their inability to supply the entire tendered quantity. The Company carried out the trial starting with 500 paper bags as early as December 2013 and the same was found satisfactory (29 January 2014). Further, the bulk trial of 25,400 paper bags purchased from B&A Packaging was completed in November 2014 and the Company found (1 December 2014) that the paper bags were of good quality even before placement of Purchase Order for one lakh paper bags. The Company also did not receive any complaints from the customers during the trial stage of paper bags purchased from B&A Packaging.

- Tender conditions providing for placing orders with more than one supplier simultaneously was in violation of CVC directions, as ratio of splitting quantity was not pre-disclosed in the tender documents and the item procured was not stated as critical or vital.

Thus, decision of the Company to limit the order quantity to B&A Packaging and purchase of paper bags from L2 and L3 bidders at higher rates in violation to the guidelines of CVC resulted in loss of ₹41.20 lakh to the Company.

[The Audit paragraph 4.6 contained in the report of the C &AG for the year ended 31 March 2017.]

The notes furnished by the Government cn the audit paragraph are given in Appendix II

Discussion and findings of the committee

The Committee sought explanation on the extra expenditure of ₹41.20 lakh in procurement of paper packing bags from L2 and L3 bidders in tender process. The Managing Director informed that the Company used only the paper packing bags of M/s Dye-pack, Germany and M/s Mondi bags, Austria GmbH till 2014 . Then in 2014, as a part of promoting indigenisation and cost cutting the company decided to award the tender for the supply of paper packing bags to M/s B & A Packing India Limited, Odisha- L1, a tea bag distributor manufacturing high technology paper bags. As the company was a new entrant, a technical inspection team of the company visited the factory to assess their manufacturing capability before opening the price bid and recommended that only a partial purchase order can be given to the firm and that further order could be given only after assessing the quality of bags they supply and customer feed back. Based on this recommendation, out of six lakh bags tendered, the company decided to award purchase order only for one lakh bags to M/s B & A Packaging India Limited, Odisha, which was L1. As the dry powder could not be stored in an intermediate facility and needed to be bagged immediately after producion, any shortage in the supply of bags would have resulted in stoppage of production which would have in turn resulted in a loss of 40-50 lakh rupees per day. Hence the company decided to place orders for the remaining five lakhs bags equally, as stipulated in tender conditions, among the remaining two bidders who were L2 and L3, Viz. M/s Dye-pack, Germany and M/s Mondi bags, Austria at the rate quoted by L2. The witness also clarified that the award of the order at the rate of L2 was done in good faith to avoid possible financial loss in case the L1 failed to fulfil the quality of bags.

The Committee pointed out that the officials of the company who visited the factory of B&A Packaging reported that it had sufficient production capacity and found no quality issues. Moreover the ratio of splitting quantity was not included in the tender conditions. Then the Committee expressed doubt on the transparency of the process of awarding order and asked reason for inviting tender when it had a stock of 240000 bags required for six months. The witness replied that when inviting the tender, the Company only had a stock for two months and it required 12 lakhs bags per year. The Senior Audit Officer objected it and informed that by assessing the use of bags from June 2014 to December 2014, the audit found that the Company required only 40000 bags per month and had a stock of 2.43 lakh bags at the time of inviting the tender. When the Committee asked whether the Company had used 12 lakhs bags in any year, the officials could not give a clear reply.

The Committee commented that prima facie the act of the company, in giving the order of only one lakh bags to the Indian company which quoted lower rate and the balance 5 lakh to the companies which quoted higher rate, seemed to be suspicious. If the product of the Indian company had any quality issues it had to be considered before the selection. Then the Committee enquired about pre quality test. The witness informed that the Company procured 500 bags in December 2013 and another 25400 bags in August 2014 as a trial and found some issues.

Then the Committee pointed out that the Company never stated anywhere that the product had quality issues. The Managing Director informed that in the year 2021 B&A Packaging had supplied the entire quantity of the paper bags required for the Company. The Committee enquired about the details of the current year's supply order. The witness informed that it was given to M/s Dye-pack, Germany and M/s B & A Packaging India in the proportion of 60:40 respectively at L1 rate. To a specific query of the Committee that the reason for not to award the order at the rate of L1, the witness replied that the M/s Dye-pack,Germany claimed their product had five mic on more than that of Indian product and could not be compared with the rate of the Indian product.

The Committee noted that the bulk trial of 25400 paper bags purchased from B & A packaging was completed in November 2014 and the company found that the paper bags were of good quality even before placement of purchase order for one lakh paper bags. The company did not receive any complaints from the customers during the trial stage about paper bags purchased from B & A packaging. To this the witness informed that B & A packaging was basically a teabag manufacturing company and their production of industrial bags was only 20% of the total production and had no previous experience and started manufacturing of industrial bags after obtaining a sample of foreign made bag from the Company. The committee who visited the Company suggested only partial order.

The Managing Director agreed with opinion of the Committee that prima facie the observation of Accountant General was correct. The Committee observed that the reason for giving only one lakh orders to B & A packaging could not be acceptable as the Company found no quality issues during the trial stage and the technical team recommended only part order. Moreover the ratio of splitting quantity was not included in tender documents. Then the Senior Audit Officer remarked that technical team who visited B & A packaging only suggested to give a part order and increase the quantity of order based on the feedback. The Committee commented that the act of the company, to limit the order quantity to B&A packaging and give orders to L2 and L3 at higher rate in violation to guidelines of CVC, was a severe lapse and should be careful not to repeat of such lapses.

Observations/Recommendations of the Committee

The Committee observes that the technical team of the company while visiting the factory of B&A Packaging reported that it had sufficient production capacity and found no quality issues. They only suggested to give a part order and increase the quantity of the order based on the feedback of the customer. The Committee understand that the advise of the technical team regarding the purchase of bags from B&A packaging was

misinterpretted for placing orders of 4 lakh bags from other bidders at a higher rate than that of the lowest bidder without valid reasons is highly irregular. Moreover the ratio of splitting quantity was not included in the tender conditions. Also the Audit found that the Company required about 40000 bags per month and had a stock of 2.43 lakh bags at the time of inviting the tender. The committee points out that the concerned officer was unable to give a clear answer to the committee's inquiry as to whether 12 lakh bags are being used in a year. Hence the Committee observes that prima facie the act of the company, in giving the order of only one lakh bags to the Indian company which quoted lower rate and the balance 5 lakh to the companies which quoted higher rate, seems to be suspicious and the tender documents were not prepared in a transparent manner.

The Committee observes that the reason for giving only one lakh orders to B & A packaging is not acceptable as the Company found no quality issues during the trial stage. More over the ratio of splitting quantity was not included in tender documents as stipulated by CVC. Hence the Committee recommends that the ratio of division of quantity should be clearly included in the tender documents, in future and utmostcare should be taken to avoid such procedural lapses again.

Audit paragraph 5.2 (2018-19)

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.

Energy[4] 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

4 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.

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 co-ordinate, regulate and enforce the provisions of the Act/ guidelines/ directions.

A sample of nine[5] out of thirty Public Sector Undertakings (PSUs) functioning in the manufacturing sector was selected as per Stratified Random Sampling Method[6] 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:

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[7] 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[8] .

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,

5Travancore 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).

6 Based on energy consumption bill data.

7 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.

8 Mines at Walayar of MCL, Mineral Separation Unit and Titanium Sponge Plant of KMML and the administrative building of KSCM

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.

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. 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[9] 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 rules109 in force. EMC, however, did not regularly monitor the conduct of energy audit and followup 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.

5.2.3 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[10] out of seven PSUs did not fix any norms for power consumption. In the case of remaining three[11] PSUs, the consumption of power was higher

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

10 KSCMMCL, TELK, SILK and KCCL

11 KMML, TTPL and STL

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 [12] crore.

The GoK replied (November/ December 2020) that the specific energy consumption of TTPL was fixed for a daily production of 45 tons and the excess compared to the norm was due to non-achievement of this production level. Further, steps were being taken to fix the range of specific energy consumption under different production levels. The GoK replied that STL achieved the norms in 2016-18, but the power consumption increased in 2018-19 due to the increase in capacity utilisation.

TELK/KSCMMCL replied (September/December 2020) that steps were being taken for fixing norms for consumption of energy for different productions levels, production mix etc.

The GoK reply was silent on the reasons for the excess consumption of power in KMML. The reply regarding TTPL was also not acceptable as no production level was stipulated for achieving the specific energy consumption at the time of fixing the norm. Further, the norm was revised from 1,200 kWh to 1,150 kWh in May 2016 based on the performance in 2015-16 and no revision was made thereafter which indicated that the norm was achievable. The reply regarding STL was not tenable as increase in capacity utilisation would ideally help to achieve the norm.

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[13] which were eligible to avail the open access facility, only two PSUs, KMML and TCCL, utilised the facility from 2015-16 and 2017-18

12KMML (₹10.87 crore), TTPL (₹33.96 lakh) and STL (₹14.55 lakh).

13MCL, TCCL, KMML, TELK, TTPL, KCCL and STL.

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.

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.

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[14] out of nine PSUs selected for audit to implement solar energy units.

Audit observed that four[15] 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[16] 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[17].

It was further noticed that MCL failed to claim subsidy of ₹ six lakh[18] from Ministry of New and Renewable Energy (MNRE) for implementing the solar energy project. After it

14 KMML, MCL, TELK, TTPL, TCCL and STL.

15 MCL, TTPL, STL and TCCL.

16Under this model, there is no capital investment by KMML and regular upkeep of the facility will be done by the supplier for 25 years.

17As 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.

18Cost capital subsidy of 30 per cent of the project cost limited to ₹30 per Watt peak for Photovoltaic Systems without battery backup 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.

TELK replied (September 2020) that the possibilities of implementing roof top 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.

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[19] to HT and EHT consumers for power factor[20] (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[21] 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

19 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.

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

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

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.

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.

[The Audit paragraph 5.2 contained in the report of the C &AG for the year ended 31 March 2019.]

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

Discussion and findings of the committee

5.2 Electrical Energy Management by Public Sector Undertakings in the mangufacturing Sector. (2018-19)

5.2.1. Delay in conducting energy Audit

The Committee enquired whether energy audit had been conducted for all HT/EHT Connections. The concerned official replied that the Company had two main units viz. the pigment unit and mineral separation unit. The energy audit of the pigment unit had been done by an external agency and the energy audit of the mineral separation unit had been done by an internal agency; and after the audit observation, external agency is engaged for conducting regular audits.

The Managing Director admitted that though they had conducted the energy audit they could not insisted upon getting the subsidy amount of 50,000 rupees as EMC informed that they had insufficient funds. The Committee noted the failure of the Company in claiming the subsidy amount due from the EMC after conducting energy audit and directed to take appropriate action.

The Committee enquired whether energy auditing was conducted for all ET/HT connections. The witness replied that though energy audit had to be done in all ET/HT connections, it was not done in the mineral separation unit and following the audit observation, steps were being taken after 2020 to complete energy auditing of all HT/EHT connections of all units and to submit the report.

Observation/Recommendation of the Committee

The Committee observes that energy audit of the pigment unit was done by an external agency and the energy audit of the mineral separation unit was done by an internal agency and after the audit observation, external agency is conducting regular audits.The Committee observes that the Company failed in obtaining the the subsidy amount of 50,000 rupees from EMC. The Committee points out that the persons responsible for this cannot stay away from it. Hence the Committee recommends that responsibility should be fixed on the persons concerned and appropriate action should be taken to obtain the subsidy.

5.2.3. Excess Power Consumption by non-designated PSUs

The Committee sought the reason of excess power consumption against the norms fixed. The Managing Director informed that 36000 tonnes per year is the rated capacity of production and for the last years the production was between 30000 and 34000 tonnes. The benchmark conception can be attained only if the production reached 36000 tonnes. He added that power consumption can be reduced only by maximising the production.

To a query of the Committee, the Managing Director informed that during previous years the Company could not increase production due to various reasons. But in the last year it attained the maximum production capacity. As a chemical industry which had heavy corrosion, there will be a yearly shutdown and tend to lose minimum 30 days of production. The shortage in the availability of the black sand also affected production during last years.

The Committee inquired about the stock of black sand held by the company. The Managing Director informed that the company did not have enough stock of black sand and was currently working with minerals obtained from Thottapally and were facing some problems for mining in Kovilthottam. He also informed that a file had been forwarded to the Revenue Department seeking permission for mining in Neendakara.

The Committee asked whether the difference in the actual power consumption during the period 2019-20 to 2021-22 had been examined. The Managing Director informed that the consumption has increased in proportion to the production and since the last year's production was 35000 tonnes, the consumption of electricity had also reached to the fixed benchmark.

The Committee wanted to know the details of the procurement of power and its rate. The witness replied that the Company purchased power from KSEB and also by utilising open access facility. Only 10 to 15% of the required electricity is available from Open Access and it was one rupee cheaper than the normal rate per unit.

Observation/Recommendation of the Committee

The Committee observes that 36000 tonnes per year is the rated capacity of production of the company and for the last years the production was between 30000 and 34000 tonnes. The benchmark consumption can be attained only if the production reaches 36000 tonnes and power consumption can be reduced only by maximising the production. Hence the committee recommends that necessary steps should be taken to bring the production up to the benchmark by keeping the electricity consumption within the prescribed norms.

5.2.4.Non-utilisation of open access facility for purchase of Power

5.2.5. Non-implementation of solar power projects

Regarding the audit objection, the DGM informed that the roof of the Company's administrative office had a space for 10KV solar power plant only. He added that the Company had 20 acres of land refilled after mining adjacent to the sea. As the land could not be used for any other purpose, a survey conducted by Keltron had been completed to assess the possibility of setting up a solar plant there and further action is in progress. He further stated that though the Company tried to install CAPEX model solar panel in 2014, it was given up finding that it had negative returns. After that the board approved the proposal for setting up a RESCO model solar power plant. But the Company could not proceed with it as the Solar Energy Corporation of India, which provides capital subsidy for this scheme, stopped the same. Now the company commissioned a 10 KV online UPS with solar panel on the administrative block. The Managing Director added that as the company handled dusty chemicals, the RESCO model would be a better option as far as maintenance is concerned.

When the Committee inquired whether any visit had been conducted to study the chemical industry-related institutions in foreign countries, the Managing Director informed that no such studies had been conducted in this regard. He further added that usually solar plant would be installed only on the roofs of chemical industry-related institutions and in an extensive scale it would be implemented in barren areas such as in CIAL Model and that will be more effective.

To a query of the Committee, the witness informed that after mining up to a depth of 8 meters it would be filled with non-valuable sand. He added that the Company had decided to install a 200 KV plant on the roof of the newly constructing canteen building and KMML had received the state award of EMC for the year 2019 and 2020.

Observation/Recommendation of the Committee

The Committee observes that Keltron has completed a survey for setting up a solar power plant on the 20 acre land reclaimed after mining. Hence the Committee opines that the implementation of solar energy projects would be beneficial to the company and recommends to furnish a report regarding the present status of implementation of solar power project.

5.2.6. Lapses in energy requirement planning and efficiency improvement measures

The Committee wanted to know the reason for the poor power factor and the measures taken to rectify it. The Managing Director informed that it was due to a faulty capacitor outside the Company. The capacitor of the HT connections could be replaced only after the local agitation in the mining area was over. The Company had not done any intentional lapse regarding this.

The Committee inquired whether any studies had been conducted to ensure to get the benefit of maximum energy saving. The witness replied that Keltron was conducting a study regarding this. To a specific query of the Committee the witness informed that the action taken on the energy audit reports of external and internal agencies had been updated to EMC. He also informed that HT/EHT connections were audited by EMC accredited agency and currently it is being done by Kerala State Productivity Council. He added that the auditing is being done once in three years as per the Government Order.

The Committee doubted whether any effective study is possible if the audit is being conducted once in every three years as there had been changes in energy consumption every year as part of modernisation process. The witness replied that on the basis of the annual internal audit, the energy savings are calculated and evaluated regularly, and on the basis of that, the KMML got award in 2019 and 2020.

Observation/Recommendation of the Committee

The Committee doubts whether any effective study is possible if the audit is being conducted once in every three years as there had been changes in energy consumption every year as part of modernisation process. Energy savings are counted on the basis of the annual internal audit, but the Committee observes that 1.23 lakh fine was paid since the power factor was below 0.90 in two of the company's connections. Therefore, the Committee recommends that a constant monitoring system should be established in PSUs of higher end energy access for maintaining the PF (Power Factor) above 0.90 by finding out rectification areas and taking effective measures for rectification.

Thiruvananthapuam
01-02-2024

E.Chandrasekharan.
Chairman,
Committee on Public Undertakings

Appendix -I

Observations/Recommendations of the Committee

S.l No.	Para No.	Department	Observations/Recommendations
1	2	3	4
1	1	Industries	*The Committee observes that the technical team of the company while visiting the factory of B&A Packaging reported that it had sufficient production capacity and found no quality issues. They only suggested to give a part order and increase the quantity of the order based on the feedback of the customer. The Committee understand that the advise of the technical team regarding the purchase of bags from B&A packaging was misinterpretted for placing orders of 4 lakh bags from other bidders at a higher rate than that of the lowest bidder without valid reasons is highly irregular. Moreover the ratio of splitting quantity was not included in the tender conditions. Also the Audit found that the Company required about 40000 bags per month and had a stock of 2.43 lakh bags at the time of inviting the tender. The committee points out that the concerned officer was unable to give a clear answer to the committee's inquiry as to whether 12 lakh bags are being used in a year. Hence the Committee observes that prima facie the act of the company, in giving the order of only one lakh bags to the Indian company which quoted lower rate and the balance 5 lakh to*

			the companies which quoted higher rate, secms to be suspicious and the tender documents were not prepared in a transparent manner. The Committee observes that the reason for giving only one lakh orders to B & A packaging is not acceptable as the Company found no quality issues during the trial stage. More over the ratio of splitting quantity was not included in tender documents as stipulated by CVC. Hence the Committee recommends that the ratio of division of quantity should be clearly included in the tender documents in future and utmostcare should be taken to avoid such procedural lapses again.
	2		*The Committee observes that energy audit of the pigment unit was done by an external agency and the energy audit of the mineral separation unit was done by an internal agency and after the audit observation, external agency is conducting regular audits.The Committee observes that the Company failed in obtaining the the subsidy amount of 50,000 rupees from EMC. The Committee points out that the persons responsible for this cannot stay away from it. Hence the Committee recommends that responsibility should be fixed on the persons concerned and appropriate action should be taken to obtain the subsidy.*
	3		*The Committee observes that 36000 tonnes per year is the rated capacity of production of the company*

			and for the last years the production was between 30000 and 34000 tonnes. The benchmark consumption can be attained only if the production reaches 36000 tonnes and power consumption can be reduced only by maximising the production. Hence the committee recommends that necessary steps should be taken to bring the production up to the benchmark by keeping the electricity consumption within the prescribed norms.
	4		*The Committee observes that Keltron has completed a survey for setting up a solar power plant on the 20 acre land reclaimed after mining. Hence the Committee opines that the implementation of solar energy projects would be beneficial to the company and recommends to furnish a report regarding the present status of implementation of solar power project.*
	5		*The Committee doubts whether any effective study is possible if the audit is being conducted once in every three years as there had been changes in energy consumption every year as part of modernisation process. Energy savings are counted on the basis of the annual internal audit, but the Committee observes that 1.23 lakh fine was paid since the power factor was below 0.90 in two of the company's connections. Therefore, the Committee recommends that a constant monitoring system should be established in PSUs of higher end energy*

			access for maintaining the PF (Power Factor) above 0.90 by finding out rectification areas and taking effective measures for rectification.

APPENDIX - II

GOVERNMENT OF KERALA

INDUSTRIES DEPARTMENT

ACTION TAKEN REPORT OF C&AG Report on PSUs for the year ended 31/3/2017 of the KERALA MINERALS AND METALS LIMITED

<table>
<tr><th>Para No.</th><th>RECOMMENDATION</th><th>ACTION TAKEN REPORT</th></tr>
<tr><td>4.6</td><td>Extra expenditure of ₹41.20Lakh in procurement of paper packing bags due to limiting the order quantity of the lowest bidder while simultaneously procuring at higher rates from other bidders.</td><td>KMML had floated a Global open e -tender in July 2014 for the purchase of paper packing bags and received three successful bids from three bidders- M/s Dye-pack Germany , (L2) M/s Mondi bags Austria GmbH (L3)& M/s B & A Packing India Ltd (L1). M/s B & A Packing India Ltd, the indigeneous supplier was in the development stage of manufacturing activities. Technical inspection team of the Company visited their factory in October 2014 to assess their manufacturing capability and recommended for partial quantity only. On the basis of the inspection report and considering the development stage of the successful bidder, Company decided to order only one lakh bags to M/s B&A packing even before the opening of the price bid.

The other two bidders -M/s Dye-pack & Mondi were established manufacturers for the said item . To ensure certainty in the quality, company decided to give orders to the two bidders and tried to negotiate with L2 &L3 to reduce rate and to match with L1 rates . But they were not willing to reduce their price. Moreover the procurement of product being a critical item, tender conditional clearly specify that the orders will be split among the successful bidders. Accordingly orders were given to L2 and L3.

M/s B& A Packing India Ltd participated in the succeeding year tenders and got the orders as follows ;
<table>
<tr><th>Year</th><th>ORDER (in number)</th></tr>
<tr><td>2015</td><td>30,000</td></tr>
<tr><td>2016</td><td>2,52,000</td></tr>
<tr><td>2017</td><td>3,36,000</td></tr>
<tr><td>2018</td><td>5,10,000</td></tr>
</table>
The company decided to split the orders among M/s Dye-pack Germany (L2) and M/s.Mondi bags Austria GmbH (L3) because M/s B&A Packing India Ltd (L1) package was in the development stage and the company needs critical raw material and package items.</td></tr>
</table>

REETHA S. PRABHA
Additional Secretary
Industries Department
Secretariat

GOVERNMENT OF KERALA
INDUSTRIES (H) DEPARTMENT

REMEDIAL MEASURES TAKEN ON THE REPORT OF THE COMPTROLLER & AUDITOR GENERAL OF INDIA ON PUBLIC SECTOR UNDERTAKINGS FOR THE YEAR ENDED ON 31st MARCH 2019

KERALA MINERALS AND METALS LIMITED

Para No.	RECOMMENDATION	REMEDIAL MEASURES TAKEN
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. Energy 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 out of thirty Public Sector Undertakings (PSUs) functioning in the manufacturing sector was selected as per Stratified Random Sampling Method 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.	
	Delay in conducting energy audit	Kerala Minerals and Metals Limited,

	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.	Vide work order No. TP/WO/PROJ/0251/2021-22 dtd 25/11/2020 and TP/WO/PROJ/0253/2021-22 dtd 02/12/2020 have appointed M/s. Kerala State Productivity Council, Kochi, to carry out comprehensive energy audit (Electrical and Thermal) of all the three units of KMML viz. TP, MS and TSP unit as well as external KSEBHT connection in the mining field. The field study has been completed and the final energy audit report is ready up to 2021 . As part of claiming energy audit subsidy, KMML had filed on line application and taken up the matter with Energy Management Centre.
5.2.1	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. 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. 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 empaneled energy auditors would be directed to incorporate details including status of implementation of previous energy audit and recommendations in energy audit report.	
	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 out of seven PSUs did not fix any norms for power consumption. In the case of remaining three 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	As per the power norms fixed by KMML towards specific consumption over the energy consumption (SEC), 1900 KWh/MT consumption is envisaged during the months of TiO2 pigment production above 3000 MT and 1900 to 2500 Kwh/MT when the TiO2 pigment production is below 3000 MT/Month .At least Minimum quantity of 1800 MT/Month of TiO2 production is required for ensuring SEC of 2500 KWH/MT which otherwise increase SEC drastically with reduced production. The power norms of the company depends directly on the quantity of Ti02 pigment & beneficiated ilmenite produced being the production process. Monthly specific energy consumption value during 2016-17 to 2018-19 is attached as Annexure B. As per actual consumption data for the said period , the SEC seems to be

5.2.3	13.90 per cent (KMML) during 2016- 17 to 2018- 19. This resulted in extra expenditure of Rs. 11.36 crore; The GoK replied (November/ December 2020) that the specific energy consumption of TTPL was fixed for a daily production of 45 tons and the excess compared to the norm was due to non-achievement of this production level. Further, steps were being taken to fix the range of specific energy consumption under different production levels. The GoK replied that STL achieved the norms in 2016-18, but the power consumption increased in 2018-19 due to the increase in capacity utilisation. TELK / KSCMMCL replied (September/December 2020) that steps were being taken for fixing norms for consumption of energy for different productions levels, production mix etc. The GoK reply was silent .on the reasons for the excess consumption of power in KMML. The reply regarding TTPL was also not acceptable as no production level was stipulated for achieving the specific energy consumption at the time of fixing the norm. Further, the norm was revised from 1,200 kWh to 1,150 kWh in May 2016 based on the performance in 2015-16 and no revision was made thereafter which indicated that the norm was achievable. The reply regarding STL was not tenable as increase in capacity utilisation would ideally help to achieve the norm.	within the limit as fixed as per the norms. In the Audit observation, 1900 Kwh/ MT SEC is considered as the limit for the total power consumption calculation. But the same is not in proportion to the fixed power norms of the Company as per monthly production quantity, which ultimately lead to the misappropriate loss calculation during the period 2016-17 to 2018-19. If SEC is considered as 1900 Kwh/MT, yearly TiO2 pigment production quantity would have been at least 36000 TPA whereas the actual TiO2 production achieved is as below and had not reached 36000 TPA due to various other reasons. yearly TiO2 pigment production quantity from 2016-17 to 2018-19 is as follows; 2016-17 : 31256 MT 2017-18 : 34120 MT 2018-19 : 33514 MT Audit observation of the excess power consumption of KMML is on the basis of SEC figure of 1900 Kwh/MT (SEC as per minimum 3000 MT/month TiO2 pigment production quantity). In order to arrive actual consumption as per norms, the actual power consumption at par with the achieved Ti02 production rate per month & SEC have to be taken into account. .i.e. SEC would be 1900 Kwh/MT for TiO2 pigment production above 3000 MT/Month. Below 3000 MT/Month TiO2 pigment production, SEC would be in the range of 1900
	5.2.4 Non-utilisation of open access facility for purchase of power As per Section 42 of the Electricity Act	Kwh/MT to 2500 KWh/MT.

5.2.4	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 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 upto 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.	No adverse remarks about KMML in the report .
	5.2.5 Non-implementation, of solar power projects The Budget Speech 20 13-14 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 (201.4) and due to closure (201.8) 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	As part of renewable energy source

5.2.5	towards purchase of, Renewable Energy Certificates for fulfilling Renewable Purchase Obligation. It was further noticed that MCL failed to claim subsidy of 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. The GoK replied (November 2020) that there was no intentional delay on KMML' s part in implementing the solar project. Further, MCL was not legible 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.	utilization viz, solar energy, KMML have identified rooftop of the Administrative building to install a 10 KVA solar UPS. Company have installed the system successfully by October, 2020. KMML is planning to install solar rooftop system in the upcoming Projects.
5.2.6	**5.2.6 Lapses in energy requirement planing 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 to HT and EHT consumers for power factor (PP) 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	EHT connection of the company drawn from KSEB is maintained with power factor above 0:95. The connection replacement noted by audit with low power factor is a High tension line taken directly from KSEB in the mining field pre-concentration plant-2 (PCP-2). By June 2019, the faulty capacitor bank of PCP-2 has been replaced with brand new and the power factor is maintained as per the requirement.

	charged in addition to the applicable charges.	
5.2.6.2	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 Rs.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.	

SEC FROM APRIL-2016 TO MARCH-2019

Month	PRODUCTION TiO2 (MT)	TIO2-POWER CONSUMPTION (Kwh)	SEC Kwh/MT TIO2
Apr-16	2506.00	5569289	2222.381883
May-16	2452.00	5906774	2408.961664
Jun-16	3033.00	5629472	1856.073854
Jul-16	2709.60	5902812	2178.480957
Aug-16	3105.00	6077833	1957.434138
Sep-16	2651.00	5639838	2127.437948
Oct-16	1820.00	4474617	2458.580769
Nov-16	1503.00	4362763	2902.70326
Dec-16	2424.00	5780113	2384.535066
Jan-17	3017.00	6322738	2095.703679
Feb-17	2780.00	5595903	2012.914748
Mar-17	3256.00	6383411	1960.507064
Apr-17	2742.00	5926920	2161.531729
May-17	2700.00	5866165	2172.653704
Jun-17	2601.00	5727043	2201.861976
Jul-17	3220.00	6321722	1963.267702
Aug-17	2834.00	6286815	2218.353917
Sep-17	2424.00	5663365	2336.3717
Oct-17	2826.00	6104428	2160.094834
Nov-17	2800.00	5264068	1880.024286
Dec-17	2580.40	5638949	2185.300341
Jan-18	3020.00	6297855	2085.38245
Feb-18	3069.00	5580836	1818.45422
Mar-18	3304.00	6378295	1930.476695
Apr-18	2502.00	5292551	2115.328137
May-18	3151.00	5949290	1888.064107
Jun-18	3055.60	5801681	1898.704346
Jul-18	3081.00	5746907	1865.273288
Aug-18	2143.00	5164109	2409.756883
Sep-18	2254.00	5437942	2412.574091
Oct-18	2902.00	5809896	2002.031702
Nov-18	2596.80	5519683	2125.571087
Dec-18	3110.00	5956233	1915.18746
Jan-19	3346.00	5923962	1770.460849
Feb-19	2880.00	5412875	1879.470486
Mar-19	2493.00	5431240	2178.596069

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Additional Secretary
Industries Department
Govt. Secretariat