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Report of the Comptroller and Auditor General of India on Public Sector Undertakings for the year ended 31 March 2017

Government of Maharashtra

Report No. 4 of the year 2018

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Preface

This Report deals with the results of audit of 84 Government companies and four Statutory corporations for the year ended 31 March 2017 for submission to the Government of Maharashtra under Section 19A of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971, as amended from time to time.

2. The accounts of Government companies (including companies deemed to be Government companies as per the provisions of the Companies Act) are audited by the Comptroller and Auditor General of India (CAG) under the provisions of Section 619 of the Companies Act, 1956 and Sections 139 and 143 of the Companies Act, 2013.

3. The CAG is the sole Auditor for Maharashtra State Road Transport Corporation, a Statutory corporation and Maharashtra Electricity Regulatory Commission, a regulatory body. As per the State Financial Corporations (Amendment) Act, 2000, the CAG has the right to conduct the audit of accounts of Maharashtra State Financial Corporation in addition to the audit conducted by the Chartered Accountants, appointed by the Corporation from the panel of auditors approved by the Reserve Bank of India. In respect of Maharashtra State Warehousing Corporation, the CAG has the right to conduct the audit of their accounts in addition to the audit conducted by the Chartered Accountants, appointed by the State Government in consultation with the CAG. Audit of Maharashtra Industrial Development Corporation is entrusted to the CAG under Section 19(3) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971 and CAG is the sole Auditor.

4. The instances mentioned in this Report are those, which came to notice in the course of test audit for the period 2016-17 as well as those which came to notice in earlier years, but could not be reported in the previous Audit Reports; matters relating to the period subsequent to 31 March 2017 have also been included, wherever necessary.

5. The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Overview

1. Functioning of Government Companies and Statutory Corporations

Audit of Government companies is governed by Sections 139 and 143 of the Companies Act, 2013. The accounts of Government companies are audited by Statutory Auditors appointed by Comptroller and Auditor General of India (CAG). These accounts are also subject to supplementary audit conducted by CAG. Audit of Statutory corporations is governed by their respective Legislations. The working results of 88 State Public Sector Undertakings (PSUs) comprising 84 State Government companies and four Statutory Corporations are discussed in this report. The turnover of 66 working PSUs was ₹ 86,319.25 crore in 2016-17 as per their latest finalised accounts. This turnover was equal to 3.81 *per cent* of the State Gross Domestic Product indicating the important role played by the State PSUs in the economy. The working PSUs incurred an overall net loss of ₹ 17,354.54 crore in 2016-17 and they had accumulated losses of ₹ 36,770.82 crore as on 31 March 2017.

(Paragraphs 1.1, 1.2, 1.3, 1.14, 1.15 and 1.16)

As on 31 March 2017, the investment (Capital and long term loans) in 88 PSUs was ₹ 2,29,830.42 crore. It grew by 142.90 *per cent* from ₹ 94,619.69 crore in 2012-13 mainly because of increase in investment in power sector. The Government contributed ₹ 3,123.99 crore towards equity, loans and grants/subsidies during 2016-17.

(Paragraphs 1.5 and 1.7)

Fifty three working PSUs had arrears of 137 accounts as of September 2017. The extent of arrears was one to 18 years. There are 22 non-working companies of which two are under liquidation.

(Paragraphs 1.9 and 1.11)

During the year 2016-17, out of 66 working PSUs, 39 PSUs earned profit of ₹ 2,986.73 crore and 16 PSUs incurred loss of ₹ 20,341.27 crore. Eight working PSUs prepared their accounts on a ‘no profit no loss’ basis and three companies had not yet started commercial operations and therefore not prepared statement of profit and loss. The major contributor to profit was M.S.E.B. Holding Company Limited (₹ 2,570.46 crore) whereas heavy losses were incurred by Maharashtra State Electricity Distribution Company Limited (₹ 15,021.09 crore) and Maharashtra State Electricity Transmission Company Limited (₹ 4,082.08 crore).

(Paragraph 1.15)

During the year, the Statutory Auditors had given unqualified certificates for 31 accounts, qualified certificates for 19 accounts and adverse certificates (which mean that accounts do not reflect a true and fair view) for three accounts.

(Paragraph 1.20)

2. Performance Audit of Government Company

Performance Audit of **Augmentation of Thermal Power Generation Capacity of Maharashtra State Power Generation Company Limited** was conducted. Highlights of the Audit findings are given below**:**

2.1 Maharashtra State Power Generation Company Limited

Executive Summary

Introduction

Maharashtra State Power Generation Company Limited (Company) was incorporated (May 2005) under the Companies Act, 1956 as a wholly owned Government Company and was engaged in the business of generation of electricity. As on 31 March 2017, the Company had an installed capacity of 13,817 Mega Watts (MW).This comprised seven coal based Thermal Power Stations (TPS) of 10,380 MW, a gas based TPS of 672 MW, 180 MW from Solar Power Plants and 26 Hydro Electric Projects of 2,585 MW.

Thermal capacity addition plan

The Company had planned/taken up 13 thermal power projects of 13,900 MW for completion/implementation during 2007-17 as against the capacity addition requirement of 7,891 to 9,664 MW during the same period. The Company completed seven projects having capacity of 5,730 MW (2007-17) while remaining six projects of 8,170 MW on which the Company had incurred ₹ 112.09 crore towards various pre-order activities, were proposed either for cancellation or deferred/pending decision of the Board of Directors (BoD) citing surplus power scenario in the State.

Project implementation

The Company completed five thermal power projects (Koradi, Parli, Chandrapur, Bhusawal and Khaperkheda) involving 4,730 MW during the period 2012-17. All the five projects were constructed by awarding two comprehensive Engineering, Procurement & Construction (EPC) contracts comprising Boiler, Turbine and Generator (BTG) package and Balance of Plant (BoP) package. The Company awarded 10 EPC contracts worth ₹ 20,867 crore for five projects.

Deficiencies in pre-implementation planning

➢ Construction of an additional unit in Parli despite water shortage and without ensuring permanent water supply for existing units was not justified.

➢ Detailed Project Report (DPR) of Bhusawal was defective as it did not provide for construction of railway siding which contributed to delayed project execution.

➢ Coal requirement of three projects (Koradi, Chandrapur and Parli) was to be met from development of a coal block. Even before development of coal block could commence, issues related to coal quality and cost effectiveness have cropped up raising doubts about its economic viability. As per the prevailing policy, the Ministry of Coal (MoC) had granted Bridge Linkage (BL) for meeting 75 *per cent* coal requirement for period up to March 2019. Thus, existing coal arrangements were inadequate for running the plant to full capacity and there was lack of firm allocation of coal for operation of the three new projects (3,230 MW) beyond March 2019. The Company had not prepared a concrete alternative plan for procurement of coal.

Time overrun

According to terms and conditions of contract, successful completion of trial run of the units was to be considered as completion date of the contract for the project. Delay in completion of trial run of the units ranged between 20 and 49 months from the scheduled completion date. Delayed project execution was attributed to poor performance and financial crisis of EPC contractors. None of the major milestones/activities were completed within the time period stipulated in the contracts.

There was lack of coordination between the BTG and BoP works which affected interrelated works. Further, there was avoidable delay due to factors within management control like delay in awarding BoP contracts; delay in completion of railway siding due to defective DPR and delay in commencement of commercial operation of units in absence of timely obtaining of requisite statutory permissions and Environmental Clearance (EC)/non-compliance with environmental conditions.

Cost analysis

As against the estimated cost of ₹ 25,048 crore for five projects, the actual cost as on date of commercial operations was ₹ 35,012 crore leading to increase in cost by ₹ 9,964 crore.

➢ Major increase in cost (56 *per cent*) of ₹ 5,620 crore was on account of increase in Interest During Construction (IDC) on loans. Of which, ₹ 1,871.93 crore was disallowed by Maharashtra Electricity Regulatory Commissions (MERC) on the grounds that delay in project execution was not entirely beyond the control of the Company.

➢ There was loss of equity contribution of ₹ 235.54 crore from the Government of Maharashtra (GoM) in three projects (Koradi, Chandrapur and Parli) consequent to delay in execution of projects.

➢ The Company incurred excess expenditure of ₹ 19.92 crore on overheads (establishment expenditure) over and above the industry norms in Parli project which was disallowed by the MERC.

Deficiencies during project construction

Audit noticed instances of deficiencies in project execution like pre-mature commissioning of units and issues related to quality of material/workmanship of EPC contractors. This had contributed to low capacity utilisation of new units and consequent irrecoverable loss of revenue on account of disallowance of fixed cost and loss of generation. Other issues like financing of a non-viable water supply scheme, non-adjustment of interest free advance against water charges, blocking of funds and extra expenditure while providing ash disposal arrangements were also observed.

Payments and recoveries

- Abnormal delay was noticed in recovery of liquidated damages of ₹ 2,296.91 crore from the EPC contractors which led to irrecoverable loss of interest of ₹ 237.30 crore.

- There was non-recovery of labour cess of ₹ 154.84 crore from the EPC contractors in three projects.

Financial management

- Failure to obtain payment security mechanisms from Maharashtra State Electricity Distribution Company Limited facilitated payment defaults and accumulation of huge arrears. This impacted liquidity/cash flow position of the Company thereby affecting project financing and repayment of loans.

- The Company paid penal interest of ₹ 78.86 crore for non-payment of loan instalments within due dates, burden of which was passed on to the consumers against tariff principles.

- The Company could not avail equity contribution to the extent of ₹ 80.10 crore from GoM due to non-inclusion of installation of Flue Gas Desulphurisation (FGD) plant in the project cost.

- There were delays in filing petitions with MERC for approval of tariff/capital costs led to delayed realisation of revenue/returns.

- Return on Equity (RoE) of ₹ 1,041.83 crore on new projects for the years 2016-18 was foregone without fulfilment of mandatory pre-conditions laid down by the BoD.

Monitoring

The monitoring system was ineffective in minimising delays in the project and IT based monitoring system was not implemented.

Operational efficiency of new units

- Performance of new units was below the norms prescribed by MERC for Plant Availability (PA), Plant Load Factor, Auxiliary Energy Consumption (AEC), Station Heat Rate, consumption of oil and Operation & Maintenance (O&M) expenses. Non-achievement/adherence to operational norms fixed by MERC resulted in non-recovery of fixed costs, excess AEC, excess consumption of coal and oil and excess expenses on O&M of plants. Low capacity utilisation of new units due to forced outages led to loss of generation of 20,391 Million Units (MUs) during 2012-17.

- Availability of the generation capacity was as important as to get it dispatched in the Merit Order considering surplus power available in the State.

The units having least cost were scheduled/dispatched first and in case power was not required, generating units having higher cost were backed down. Audit observed loss of generation on account of backing down of units of the Company had increased from 143 MUs in 2012-13 to 9,311 MUs in 2016-17 (total loss: 17,313 MUs), leading to loss of revenue (energy charges) to the Company besides burdening the consumers with fixed charges. In respect of new projects, cost of generation was highest at Bhusawal and hence suffered maximum backing down of generation.

Environmental compliances

There was instance of non-compliance with conditions of EC regarding installation of FGD and ozonisation plant at Koradi project. None of the new projects achieved target of 100 *per cent* fly ash utilisation.

3. Compliance Audit Paragraphs

Gist of some of the important audit observations is given below:

City and Industrial Development Corporation of Maharashtra Limited having selected the Navi Mumbai site for development of Greenfield airport project with scheduled commencement of operation in 2012-13 could not complete the various activities such as pre-development works, land acquisition, necessary clearances, development of Rehabilitation & Resettlement (R&R) sites and R&R of 3,000 project affected families even after more than 10 years from the receipt of approval for the project. Non-completion of the required activities by CIDCO has resulted in cost and time overrun on the project.

(Paragraph 3.1)

Haffkine Bio-Pharmaceuticals Corporation Limited did not file the Income Tax returns on due dates and had to forgo the set off benefit of carry forward loss which resulted in loss of ₹ 1.21 crore. The Company also did not get the refund of excess tax paid ₹ 43 lakh.

(Paragraph 3.2)

Maharashtra State Electricity Distribution Company Limited paid Load factor incentive of ₹ 9.69 crore to 76 HT consumers whose load factor exceeded more than 100 *per cent*. The Company did not adopt the formula as prescribed by MERC while calculating the PF incentive/penalty to HT consumers. The collection efficiency of the Company by considering the total billed demand and collection during each financial year was varying from 70.87 to 74.53 *per cent*.

(Paragraph 3.3)

Maharashtra State Electricity Distribution Company Limited made excess payment of ₹ 5.45 crore towards fixed charges, at higher rates, to the co-generator.

The Company purchased costly power from Bagasse based power generators by backing down other economic power producing units.

(Paragraphs 3.4 and 3.5)

Injudicious decision of **Maharashtra State Electricity Transmission Company Limited** to convert 25 MVA Power Transformers to 50 MVA resulted in extra expenditure of ₹ 3.12 crore as compared to the cost of new 50 MVA transformer. The Company did not execute the work for which material costing ₹ 14.50 crore was procured during January to March 2014 resulting in loss of interest of ₹ 4.93 crore.

(Paragraphs 3.6 and 3.7)

Shivshahi Punarvasan Prakalp Limited went ahead with the rehabilitation of slum dwellers without proper mechanism for implementation. Though, the Company allotted 1,128 flats to a society for allotment to slum dwellers, the intended objective of vacating the encroached land could not be achieved and the slum dwellers were still occupying the land even after allotment of flats.

(Paragraph 3.9)

Maharashtra Industrial Development Corporation granted undue benefit to the plot holder by reducing the additional premium resulting in a loss of revenue of ₹ 6.48 crore.

(Paragraph 3.10)

Chapter I

Functioning of State Public Sector Undertakings

Chapter-I

Functioning of State Public Sector Undertakings

Introduction

1.1 The State Public Sector Undertakings (PSUs) consist of State Government companies and Statutory corporations. As on 31 March 2017, there were 84 State Government companies and four Statutory corporations. None of these Government companies was listed in the stock exchange. During the year 2016-17, three[1] PSUs were incorporated and two[2] PSUs ceased to be treated as Government companies as per clarification[3] from Ministry of Corporate Affairs (MoCA). The details of the State PSUs in Maharashtra as on 31 March 2017 are given below.

Table 1.1: Total number of PSUs as on 31 March 2017

Type of PSUs	Working PSUs	Non-working PSUs[4]	Total
Government companies[5]	62	22	**84**
Statutory corporations	04	--	**4**
Total	**66**	**22**	**88**

The working PSUs registered a turnover of ₹ 86,319.25 crore as *per* their latest finalised accounts as of September 2017. This turnover was equal to 3.81 *per cent* of State Gross Domestic Product (GDP) for the year 2016-17. The working PSUs incurred aggregate loss of ₹ 17,354.54 crore as per their latest finalised accounts as of September 2017. As on March 2017, the State PSUs had employed 2.12 lakh employees.

As on 31 March 2017, there were 22 non-working PSUs having investment of ₹ 717.90 crore. This is a critical area as the investments in non-working PSUs do not contribute to the economic growth of the State.

Accountability framework

1.2 The process of audit of Government companies is governed by respective provisions of Sections 139 and 143 of the Companies Act, 2013 (Act). According to Section 2(45) of the Act 2013, a Government Company means any Company in which not less than fifty one *per cent* of the paid-up share capital is held by the Central Government, or by any State Government or

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[1] Maharashtra Satara Kagal Infrastructure Limited, Village Social Transformation Foundation and Maharashtra Information Technology Corporation Limited

[2] Pune Smart City Development Corporation Limited and Solapur City Development Corporation Limited

[3] MoCA clarified (December 2016) that the equity stake of Municipality or Local Body may not be treated at par with the equity stake of a State or Central Government for the purposes of reckoning as to whether a company is a Government company within the meaning of Section 2(45) of Companies Act, 2013

[4] Non-working PSUs are those that have ceased to carry on their operations

[5] Includes other companies referred to in Sections 139(5) and 139(7) of Companies Act, 2013

Governments, or partly by the Central Government and partly by one or more State Governments, and includes a Company which is a subsidiary Company of such a Government Company.

Further, as per sub-Section (7) of Section 143 of the Act, the Comptroller and Auditor General of India may, in case of any Company covered under sub-Section (5) or sub-Section (7) of Section 139, if considered necessary, by an order, cause test audit to be conducted of the accounts of such Company and the provisions of Section 19A of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971 shall apply to the report of such test Audit. Thus, a Government Company or any other Company owned or controlled, directly or indirectly, by the Central Government, or by any State Government or Governments or partly by Central Government and partly by one or more State Governments is subject to audit by the Comptroller and Auditor General of India. An audit of the financial statements of a Company in respect of the financial years that commenced on or before 31 March 2014 shall continue to be governed by the provisions of the Companies Act, 1956.

Statutory Audit

1.3 The financial statements of the Government companies (as defined in Section 2(45) of the Companies Act, 2013) are audited by Statutory Auditors, who are appointed by the Comptroller and Auditor General of India as *per* the provisions of Section 139(5) or (7) of the Act, 2013. The Statutory Auditors submit a copy of the Audit Report to the Comptroller and Auditor General of India including, among other things, financial statements of the Company under Section 143(5) of the Act, 2013. These financial statements are also subject to supplementary audit to be conducted by the Comptroller and Auditor General of India within sixty days from the date of receipt of the Audit Report under the provisions of Section 143(6) of the Act, 2013.

Audit of Statutory corporations is governed by their respective legislations. Out of four Statutory corporations, the Comptroller and Auditor General of India is sole auditor for Maharashtra State Road Transport Corporation and Maharashtra Industrial Development Corporation. In respect of Maharashtra State Warehousing Corporation and Maharashtra State Financial Corporation, the audit is conducted by Chartered Accountants and supplementary audit by the Comptroller and Auditor General of India.

Role of Government and Legislature

1.4 The State Government exercises control over the affairs of these PSUs through its administrative departments. The Chief Executive and Directors to the Board are appointed by the State Government.

The State Legislature also monitors the accounting and utilisation of Government investment in the PSUs. For this, the Annual Reports together with the Statutory Auditors' Reports and comments of the Comptroller and Auditor General of India, in respect of State Government companies and Separate Audit Reports in case of Statutory corporations are to be placed before the State

Legislature under Section 394 of the Act, 2013 or as stipulated in the respective Acts. The Audit Reports of the Comptroller and Auditor General of India are submitted to the Government under Section 19A of the Comptroller and Auditor General of India's (Duties, Powers and Conditions of Service) Act, 1971.

Investment in State PSUs

1.5 As on 31 March 2017, the total investment (capital and long term loans) in 88 PSUs was ₹ 2,29,830.42 crore as per details given below.

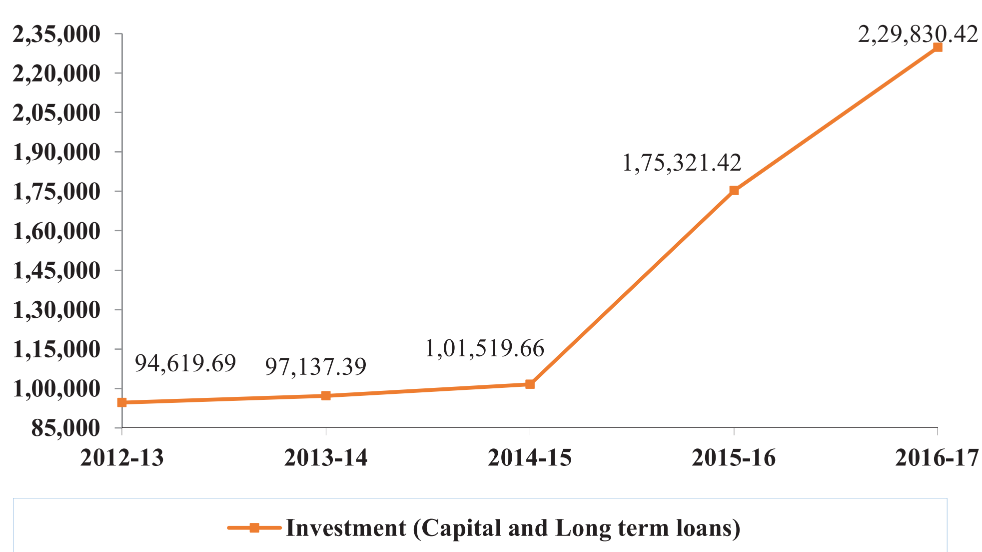
Table 1.2: Total investment in PSUs *(₹ in crore)*

Type of PSUs	Government companies			Statutory corporations			Grand Total
	Capital	Long Term Loans	Total	Capital	Long Term Loans	Total	
Working	1,74,099.20	50,495.97	**2,24,595.17**	3,761.31	756.04	**4,517.35**	**2,29,112.52**
Non-working	318.35	399.55	**717.90**	--	--	--	**717.90**
Total	**1,74,417.55**	**50,895.52**	**2,25,313.07**	**3,761.31**	**756.04**	**4,517.35**	**2,29,830.42**

(Source: Data compiled from information provided by PSUs)

As on 31 March 2017, of the total investment in State PSUs, 99.69 *per cent* was in working PSUs and the remaining 0.31 *per cent* was in non-working PSUs. 77.53 *per cent* of the investment was on capital and 22.47 *per cent* in long term loans. As per their latest finalised accounts, 39 working PSUs earned an aggregate profit of ₹ 2,986.73 crore. The total investment grew by 142.90 *per cent* from ₹ 94,619.69 crore in 2012-13 to ₹ 2,29,830.42 crore in 2016-17 as shown in the graph below:

Chart 1.1: Total investment in PSUs
(₹ in crore)



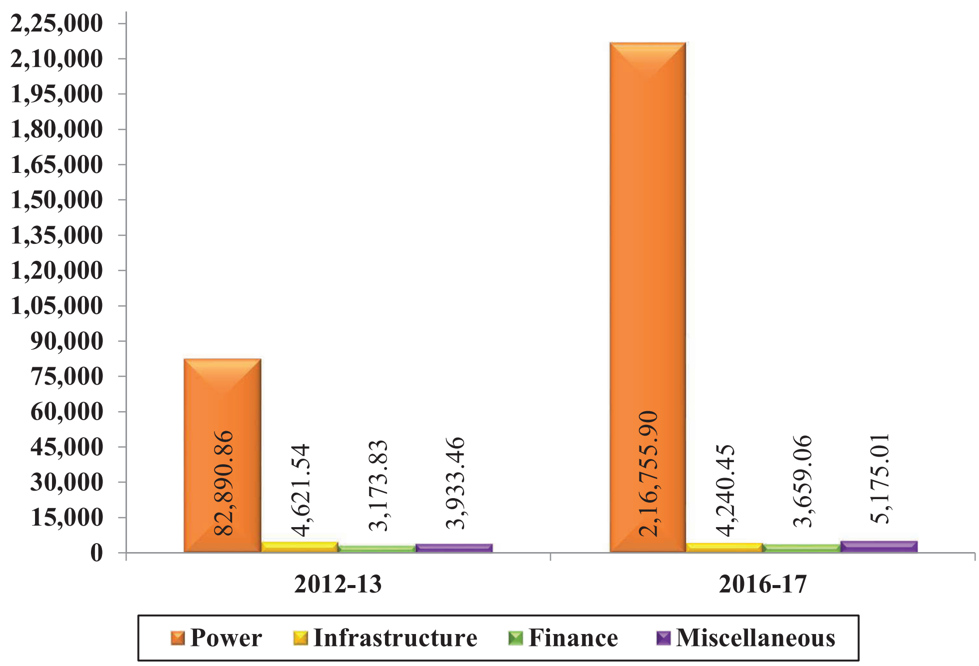
1.6 The sector-wise summary of investments in the State PSUs as on 31 March 2017 is given below:

Table 1.3: Sector-wise investment in PSUs

Name of sector	Government companies		Statutory corporations	Total	Investment (₹ in crore)	Percentage to total investment
	Working	Non-working	Working			
Power	8	--	--	**8**	2,16,755.90	94.32
Infrastructure	12	6	1	**19**	4,240.45	1.85
Service	3	--	1	**4**	3,911.85	1.70
Finance	17	--	1	**18**	3,659.06	1.59
Manufacturing	9	8	--	**17**	675.51	0.29
Agriculture & Allied	7	6	1	**14**	558.98	0.24
Miscellaneous	6	2	--	**8**	28.67	0.01
Total	**62**	**22**	**4**	**88**	**2,29,830.42**	**100.00**

The investment in various important sectors and percentage thereof at the end of 31 March 2013 and 31 March 2017 are indicated in the bar chart below.

Chart 1.2: Sector wise investment in PSUs
(Figures ₹ in crore)



The thrust of PSU investment was mainly in power sector which increased from 87.60 *per cent* to 94.32 *per cent* during 2012-13 to 2016-17. The power sector received investment of ₹ 1,33,865.04 crore (99 *per cent*) out of total investment of ₹ 1,35,210.73 crore made during the period 2012-13 to 2016-17.

Special support and returns during the year

1.7 The GoM provides financial support to PSUs in various forms through the Annual Budget. The summarised details of Budgetary outgo towards equity, loans, grants/subsidies, loans written off and interest waived in respect of State PSUs for three years ending 2016-17 are given below:

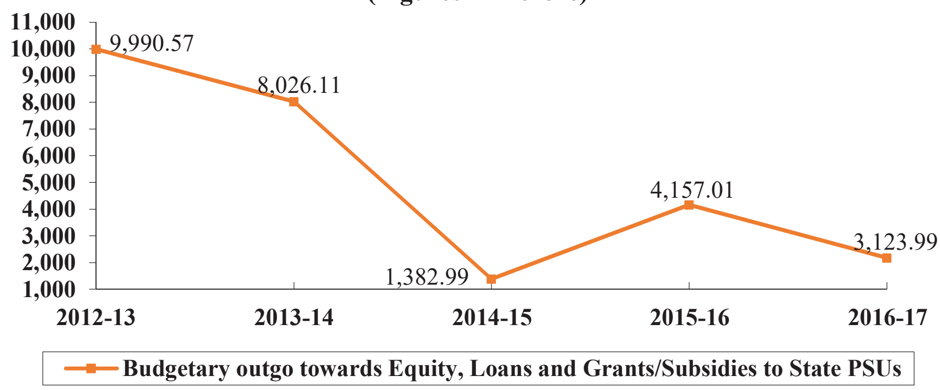
Table 1.4: Details regarding budgetary support to PSUs (₹ in crore)

Sl. No.	Particulars	2014-15		2015-16		2016-17	
		No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
1.	Equity Capital outgo	9	624.47	6	1,528.54	6	1,599.80
2.	Loans given	1	10.00	1	206.82	7	253.63
3.	Grants/Subsidy received	17	748.52	17	2,421.65	19	1,270.56
4.	**Total Outgo (1+2+3)**	**18**	**1,382.99**	**18**	**4,157.01**	**26**	**3,123.99**
5.	Loan repayment written off	--	--	--	--	--	--
6.	Waiver of interest	1	0.36	--	--	--	--
7.	Guarantees issued	4	88.37	2	11.08	2	1.94
8.	Guarantee Commitment	11	2,540.30	11	2,200.53	12	1,708.92

(Source: Data compiled from information provided by PSUs)

The details regarding budgetary outgo towards equity, loans and grants/ subsidies for the five years ending 2016-17 are given in a graph below:

Chart 1.3: Budgetary outgo towards Equity, Loans and Grants/Subsidies (Figures ₹ in crore)



1.7.1 During the year 2016-17, the budgetary outgo in State PSUs decreased from ₹ 4,157.01 crore in the previous year to ₹ 3,123.99 crore. Out of the total equity capital outgo of ₹ 1,599.80 crore, the State Government provided significant assistance to M.S.E.B Holding Company Limited (₹ 693.79 crore), Maharashtra State Road Transport Corporation (₹ 486.98 crore) and Maharashtra State Power Generation Company Limited (₹ 392.78 crore). Similarly, the major recipients of loan were Maharashtra State Road Development Corporation Limited (₹ 179.02 crore) and Mahatma Phule Backward Class Development Corporation Limited (₹ 40.99 crore). Grants/Subsidy were also provided to Maharashtra State Police Housing and Welfare Corporation Limited (₹ 545.59 crore) and Maharashtra Tourism Development Corporation Limited (₹ 170.60 crore).

In order to enable PSUs to obtain financial assistance from Banks and Financial Institutions, State Government gives guarantee for which the guarantee fee is being charged. This fee varies from 0.50 *per cent* to two *per cent*, as decided by the State Government, depending upon the loanees. The guarantee commitment of State Government decreased to ₹ 1,708.92 crore during 2016-17 from

₹ 2,200.53 crore in 2015-16. Further, seven PSUs paid guarantee fees to the tune of ₹ 3.77 crore during 2016-17 whereas five PSUs did not pay guarantee fees/ commission during the year. The accumulated/outstanding guarantee fees/ commission there against were ₹ 305.63 crore as on 31 March 2017.

Implementation of UDAY Scheme in Maharashtra

1.7.2 The Government of India approved (November 2015) Ujwal DISCOM Assurance Yojana (UDAY) a scheme for operational and financial turnaround of the State owned power distribution companies. As per the Scheme, the State Governments were to take over 75 *per cent* of DISCOM debts as on 30 September 2015 over a period of two years *i.e.* 50 *per cent* in 2015-16 and the remaining 25 *per cent* in 2016-17.

As on 30 September 2017, the accounts of Maharashtra State Electricity Distribution Company Limited (MSEDCL) for the year 2016-17 were in arrears. As per information received from the Company, during 2016-17, State Government raised Special Bonds of ₹ 4,959.75 crore (75 *per cent* of Medium and Short term debts) and gave as loans to the MSEDCL. For the balance ₹ 1,653.25 crore (25 *per cent* of Medium and Short term loans) MSEDCL has been authorised to raise funds with the guarantee of the State Government.

Reconciliation with Finance Accounts

1.8 The figures in respect of equity, loans and guarantees outstanding as per records of State PSUs should agree with that of the figures appearing in the Finance Accounts of the State. In case the figures do not agree, the concerned PSUs and the Finance Department should carry out reconciliation of the differences. The position in this regard as on 31 March 2017 with respect to 49 PSUs is stated below:

Table 1.5: Equity, loans, guarantees outstanding as per Finance Accounts *vis-a-vis* records of PSUs **(₹ in crore)**

Outstanding in respect of	Amount as per Finance Accounts	Amount as per records of PSUs	Difference
Equity	9,496.25	95,667.16	86,170.91
Loans	6,042.53	1,094.40	4,948.13
Guarantees	1,772.86	1,708.92	63.94

The matter is regularly taken up with the Chief Secretary/Additional Chief Secretary (Finance), the latest being in November 2017. The Government and the PSUs should take concrete steps to reconcile the differences in a time-bound manner.

Arrears in finalisation of accounts

1.9 The financial statements of the companies for every financial year are required to be finalised within six months from the end of relevant financial year *i.e.* by September end in accordance with the provisions of Section 129(2) and placed before the Annual General Meeting of the Company in terms of Section 96(1) of the Companies Act, 2013. Failure to do so may attract penal provisions under Section 129(7) and 99 of the Act, 2013. In case of Statutory corporations, their accounts are finalised, audited and presented to the Legislature as per the provisions of their respective Acts.

The table below provides the details of progress made by working PSUs in finalisation of accounts as on 30 September 2017:

Table 1.6: Position relating to finalisation of accounts of working PSUs

Sl. No.	Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
1	Number of Working PSUs	65	65	65	65	66
2	Number of accounts finalised during the year	74	78	64	57	55
3	Number of accounts in arrears	129	116	125	129	137[6]
4	Number of Working PSUs with arrears in accounts	52	51	54	57	53
5	Extent of arrears (numbers in years)	1 to 7 years	1 to 8 years	1 to 16 years	1 to 17 years	1 to 18 years

It was observed that the number of accounts in arrears had increased from 129 accounts in 2012-13 to 137 accounts in 2016-17. During the year 15 working PSUs did not finalise even a single year's account which led to increase in accumulation of arrear accounts.

The Administrative Departments have the responsibility to oversee the activities of these entities and to ensure that the accounts are finalised and adopted by these PSUs within the stipulated period. The PSUs and their concerned Departments were informed regularly and meetings were also held for liquidating the arrears of accounts by drawing their attention to the provisions of the Companies Act, 2013.

1.10 The GoM had invested ₹ 4,202.28 crore in 26 PSUs {Equity: ₹ 1,926.14 crore (16 PSUs), Loans: ₹ 531.75 crore (nine PSUs) and Grants: ₹ 1,744.39 crore (16 PSUs)} during the years for which accounts had not been finalised as detailed in **Annexure 1**. In the absence of Financial Statements and their subsequent audit, it could not be ensured whether the investments and expenditure incurred had been properly accounted for and the purpose for which the amount was invested was achieved or not and thus Government's investment in such PSUs, remained outside the control of the State Legislature.

1.11 In addition to above, as on 30 September 2017, there were arrears in finalisation of accounts by non-working PSUs. Out of 22 non-working PSUs, two[7] were in the process of liquidation whose accounts were in arrears for

[6] Does not include three accounts of newly incorporated Companies during 2016-17 *viz*: Maharashtra Satara Kagal Infrastructure Limited, Village Social Transformation Foundation and Maharashtra Information Technology Corporation Limited

[7] Irrigation Development Corporation of Maharashtra Limited and Sahyadri Glass Works Limited

six to 23 years. Of the remaining 20 non-working PSUs, 15 PSUs had arrears of 29 accounts.

Table 1.7: Position relating to arrears of accounts in respect of non-working PSUs

No. of non-working companies	Period for which accounts were in arrears	No. of years for which accounts were in arrears
12	2016-17	1
1	2014-15 to 2016-17	3
1	2013-14 to 2016-17	4
1	2007-08 to 2016-17	10

Six PSUs (including two under liquidation) did not finalise even one account during 2016-17.

Placement of Separate Audit Reports

1.12 Two Statutory corporations had forwarded their final accounts of 2015-16 by 30 September 2017. The final accounts for the year 2016-17 were pending for all four Statutory corporations. The position depicted below shows the status of placement of Separate Audit Reports (SARs) issued by the Comptroller and Auditor General of India (up to 30 September 2017) on the accounts of Statutory corporations in the Legislature.

Table 1.8: Status of placement of SARs in Legislature

Sl. No.	Name of Statutory corporation	Year up to which SARs placed in Legislature	Year for which SARs not placed in Legislature		
			Year of SAR	Date of issue to the Government	Present Status
1.	Maharashtra State Warehousing Corporation	2014-15	2015-16	10/03/2017	SAR is yet to be placed before the State Legislature.
2.	Maharashtra Industrial Development Corporation	2011-12	2012-13 2013-14 2014-15	20/01/2015 05/10/2015 22/03/2016	SARs are yet to be placed before the State Legislature.
3.	Maharashtra State Financial Corporation	2014-15	-	-	Accounts for 2015-16 onwards are yet to be received.
4.	Maharashtra State Road Transport Corporation	2014-15	2015-16	24/08/2017	SAR is yet to be placed before the State Legislature.

Impact of non-finalisation of accounts

1.13 As pointed in **paragraph 1.9 to 1.11**, the delay in finalisation of accounts may also result in risk of fraud and leakage of public money apart from violation of the provisions of the relevant statutes. In view of the above state of arrears of accounts, the actual contribution of PSUs to the State GDP for the year 2016-17 could not be ascertained and their contribution to the State exchequer was also not reported to the State Legislature.

It is, therefore, recommended that the Administrative Department should strictly monitor and issue necessary directions to liquidate the arrears in accounts. The Government may also consider availing external assistance relating to preparation of accounts wherever there is lack of expertise.

Performance of PSUs as per their latest finalised accounts

1.14 The financial position and working results of working Government companies and Statutory corporations are detailed in **Annexure 2.** A *ratio* of PSU turnover to State GDP shows the extent of activities of these PSUs in the State.

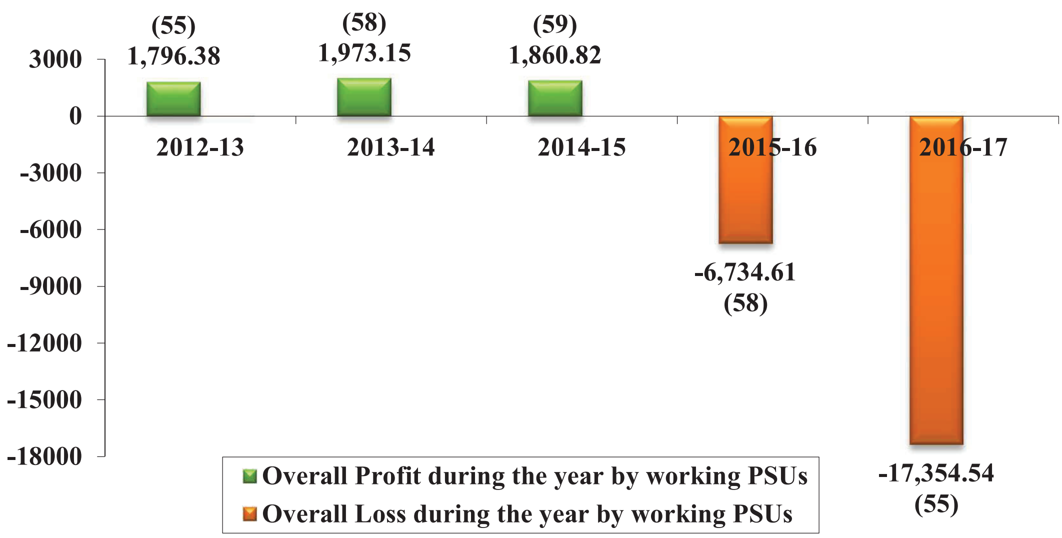
Table 1.9: Details of working PSUs turnover *vis-a-vis* State GDP *(₹ in crore)*

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Turnover	67,382.90	77,462.56	85,639.39	91,397.69	86,319.25
State GDP	13,72,644	14,76,233	16,86,695	20,01,223[8]	22,67,789[9]
Percentage of Turnover to State GDP	4.91	5.25	5.08	4.57	3.81

The increase in State PSUs' turnover ranged between 6.72 and 14.96 *per cent* during the period 2012-16, whereas the turnover of PSUs for 2016-17 has decreased (5.56 *per cent*) over previous year mainly because of decrease in turnover of the Power Sector Companies.

1.15 Overall profit earned/loss incurred by State working PSUs during 2012-13 to 2016-17 is given below in a bar chart.

Chart 1.4: Profit/Loss of working PSUs
(Figures in ₹ crore)



(Figures in brackets show the number of working PSUs in respective years)

During the year 2016-17, out of 66 working PSUs, 39 PSUs earned profit of ₹ 2,986.73 crore and 16 PSUs incurred loss of ₹ 20,341.27 crore. Eight working PSUs prepared their accounts on a 'no profit no loss' basis and three companies had not yet started commercial operations and therefore not prepared Statement of Profit and Loss. The major contributor to profit was M.S.E.B Holding Company Limited (₹ 2,570.46 crore) whereas heavy losses were incurred by Maharashtra State Electricity Distribution Company Limited (MSEDCL)

[8] Actuals
[9] Advance estimates

(₹ 15,021.09 crore) and Maharashtra State Electricity Transmission Company Limited (₹ 4,082.08 crore).

1.16 Some other key parameters pertaining to State PSUs are given below.

Table 1.10: Key Parameters of the State PSUs **(₹ in crore)**

Particulars	2012-13	2013-14	2014-15	2015-16	2016-17
Return on Capital Employed (*per cent)*	6.62	10.42	9.19	Σ	Σ[10]
Debt	59,053.64	58,911.16	54,477.66	55,068.28	49,391.45
Turnover	67,383.89	77,462.73	85,639.39	91,397.72	86,319.25
Debt/Turnover *ratio*	0.88:1	0.76:1	0.64:1	0.60:1	0.57:1
Interest Payment	4,062.00	7,014.15	6,064.04	5,982.88	7,109.49
Accumulated Profit/(Loss)	(11,219.48)	(10,036.05)	(9,071.83)	(18,027.42)	(36,770.82)

1.17 The State Government had formulated (October 2003) a dividend policy under which all profit making PSUs are required to pay a minimum return of five *per cent* on the paid up share capital contributed by the State Government. As per their latest finalised accounts, 39 PSUs earned an aggregate profit of ₹ 2,986.73 crore and only six PSUs declared a dividend of ₹ 4.53 crore.

As per latest finalised financial statements during 2016-17, total investment[11] in State PSUs was ₹ 2,28,612.10 crore and there was a corresponding negative return on investment of five *per cent*. Similarly, the total shareholders' fund/ equity[12] was ₹ 1,39,181.19 crore and there was a corresponding negative return on equity of 12 *per cent*.

Erosion of capital due to losses

1.18 The net accumulated losses in respect of all the State PSUs as per their latest finalised financial statements were ₹ 36,770.82 crore as detailed in **Annexure 2.** Of these PSUs, net worth was eroded in seven PSUs. The paid up share capital of the State Government and negative balance of reserves and surplus of these seven PSUs was ₹ 1,158.38 crore and ₹ 3,042.09 crore respectively. The net worth was eroded primarily in Maharashtra State Textile Corporation Limited (₹ 802.14 crore), Maharashtra State Financial Corporation (₹ 579.04 crore) and Maharashtra Electronics Corporation Limited (₹ 325.67 crore) as detailed in **Annexure 3**.

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10 Return on capital employed is negative

11 Includes paid up share capital, share application money, free reserves and long term loans

12 Includes paid up share capital, share application money, free reserves, accumulated loss and deferred revenue expenditure

Winding up of non-working PSUs

1.19 There were 22 non-working PSUs (all companies) as on 31 March 2017 having a total investment of ₹ 717.90 crore towards capital (₹ 318.35 crore) and long term loans (₹ 399.55 crore). Of these, two PSUs (Irrigation Development Corporation of Maharashtra Limited and Sahyadri Glass Works Limited) have commenced liquidation process. During 2016-17, 10 non-working PSUs incurred an expenditure of ₹ 2.89 crore towards establishment expenses. The stages of closure in respect of non-working PSUs are given below.

Table 1.11: Closure of Non-working PSUs

Sl. No.	Particulars	Companies	Total
1	Total No. of non-working PSUs	22	22
2	Of (1) above, the No. of PSUs as under		
(a)	Liquidation by Court (liquidator appointed)	2	2
(b)	Voluntary winding up (liquidator appointed)	0	0
(c)	Closure *i.e.* closing orders/instructions issued but liquidation process not yet started	20	20

During the year 2016-17, no non-working company was finally wound up. The Government may take a decision regarding winding up of 20 non-working PSUs.

Accounts Comments

1.20 During the year 2016-17, 46 working companies forwarded their 53 audited accounts to the Accountant General (AG). Of these, 23 accounts of 20 companies were selected for supplementary audit. The audit reports of Statutory Auditors appointed by Comptroller and Auditor General of India and the supplementary audit of Comptroller and Auditor General of India indicate that the quality of maintenance of accounts needs to be improved substantially. The details of aggregate money value of comments of Statutory Auditors and Comptroller and Auditor General of India are given below.

Table 1.12: Impact of audit comments on working companies *(Amount ₹ in crore)*

Sl. No.	Particulars	2014-15		2015-16		2016-17	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1	Decrease in profit	9	33.46	7	26.10	8	66.18
2	Increase in loss	11	3,884.84	6	2,080.65	6	11,751.29
3	Non-disclosure of material facts	7	56.15	4	7,307.35	-	-
4	Errors of classification	8	57.19	15	644.09	4	92.79

During the year 2016-17, the Statutory Auditors had given unqualified certificates for 31 accounts, qualified certificates for 19 accounts and adverse certificates (which means that accounts do not reflect a true and fair position) for three accounts. The compliance of companies with the Accounting

Standards remained poor as there were 43 instances of Non-Compliance in 14 accounts during the year.

1.21 Similarly, two working Statutory corporations[13] forwarded their two accounts to AG during the year 2016-17. Of these, accounts of Maharashtra State Road Transport Corporation (a Statutory corporation) pertained to sole audit by the Comptroller and Auditor General of India which was completed and other was selected for supplementary audit. The Audit Reports of Statutory Auditors and the sole/supplementary audit of Comptroller and Auditor General of India indicate that the quality of maintenance of accounts needs to be improved substantially.

The details of aggregate money value of comments of Statutory Auditors and Comptroller and Auditor General of India are given below.

Table 1.13: Impact of audit comments on Statutory Corporations *(Amount ₹ in crore)*

Sl. No.	Particulars	2014-15		2015-16		2016-17	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1	Decrease in profit	-	-	1	2.54	-	-
2	Increase in loss	1	11.55	-	-	1	40.83
3	Non-disclosure of material facts	-	-	2	4.26	1	7.88
4	Errors of classification	1	94.83	1	2.94	-	-

During the year, one account pertaining to Maharashtra State Warehousing Corporation received qualified certificate.

Response of the Government to Audit

Performance Audit and Paragraphs

1.22 For the Report of the Comptroller and Auditor General of India for the year ended 31 March 2017, a Performance Audit Report and 11 Compliance Audit paragraphs were issued to the Additional Chief Secretaries/Principal Secretaries of the respective Departments with request to furnish replies within six weeks. Replies on the Performance Audit Report and nine Compliance Audit paragraphs were awaited from the State Government (February 2018).

Follow up action on Audit Reports

Replies Outstanding

1.23 The report of the Comptroller and Auditor General of India represents the culmination of the process of audit scrutiny. It is, therefore, necessary that they elicit appropriate and timely response from the executive. The Finance Department, Government of Maharashtra issued (January 2001) instructions to all Administrative Department to submit replies/explanatory notes to

[13] Maharashtra State Road Transport Corporation and Maharashtra State Warehousing Corporation

paragraphs/performance audit included in the Audit Reports of the Comptroller and Auditor General of India within a period of three months after their presentation to the Legislature, in the prescribed format without waiting for any questionnaires from the Committee on Public Undertakings (COPU).

Table No.1.14: Explanatory notes not received as on 31 January 2018

Year of the Audit Report (Commercial /PSU)	Date of placement of Audit Report in the State Legislature	Total Performance Audits (PAs) and Paragraphs in the Audit Report		Number of PAs/Paragraphs for which explanatory notes were pending receipt	
		PAs	Paragraphs	PAs	Paragraphs
2012-13	14 June 2014	3	15	-	1
2015-16	07 April 2017	1	14	-	9
Total		**4**	**29**	**-**	**10**

As on 31 January 2018, explanatory notes to 10 paragraphs in respect of 12 departments were awaited.

Discussion of Audit Reports by COPU

1.24 The status of discussion of Performance Audits and Paragraphs that appeared in Audit Reports (PSUs) and discussed by the COPU as on 31 January 2018 was as under:

Table No.1.15: Performance Audit/Paragraphs appeared in Audit Reports *vis-a-vis* discussed as on 31 January 2018

Period of Audit Report	Number of Performance Audit/Paragraphs			
	Appeared in Audit Report		Paras discussed	
	PAs	Paragraphs	Pas	Paragraphs
2008-09	2	21	1	21
2009-10	2	21	1	21
2010-11	2	19	-	17
2011-12	2	21	-	15
2012-13	3	15	-	4
2013-14	2	6	1	5
2014-15	4	12	-	-
2015-16	1	14	-	-
Total	**18**	**129**	**3**	**83**

Compliance to Reports of COPU

1.25 Action Taken Notes (ATN) to 180 paragraphs pertaining to 29 Reports of the COPU presented to the State Legislature between 2005-06 and 2017-18 had not been received (January 2018) as indicated below:

Table No.1.16: Compliance to COPU Reports

Year of the COPU Report	Total number of COPU Reports	Total number of recommendations in COPU Report	Number of recommendations where ATNs not received
2005-06	1	5	5
2007-08	2	16	16
2010-11	6	39	28
2012-13	3	45	30
2013-14	2	20	20
2015-16	14	81	74
2017-18	1	7	7
Total	**29**	**213**	**180**

These Reports of COPU contained recommendations in respect of paragraphs pertaining to 16 departments, which appeared in the Reports of the Comptroller and Auditor General of India for the years 2001-02 to 2013-14.

It is recommended that the Government may ensure: a) sending of replies to IRs/explanatory Notes/draft paragraphs/performance audits and ATNs on the recommendations of COPU as per the prescribed time schedule; b) recovery of loss/outstanding advances/overpayments and other actions required to be taken on internal control issues as well as fixing of accountability on officials concerned within the prescribed period; and c) revamping of the system of responding in time to audit observations.

Disinvestment, Restructuring and Privatisation of PSUs and reforms in power sector

1.26 No disinvestment or privatisation of PSUs had taken place during 2016-17.

Chapter II

Performance Audit of Government Company

Chapter II

2. Performance Audit Report on augmentation of Thermal Power Generation Capacity of Maharashtra State Power Generation Company Limited

Executive Summary

Introduction

Maharashtra State Power Generation Company Limited (Company) was incorporated (May 2005) under the Companies Act, 1956 as a wholly owned Government Company and was engaged in the business of generation of electricity. As on 31 March 2017, the Company had an installed capacity of 13,817 Mega Watts (MW). This comprised seven coal based Thermal Power Stations (TPS) of 10,380 MW, a gas based TPS of 672 MW, 180 MW from Solar Power Plants and 26 Hydro Electric Projects of 2,585 MW.

Thermal capacity addition plan

The Company had planned/taken up 13 thermal power projects of 13,900 MW for completion/implementation during 2007-17 as against the capacity addition requirement of 7,891 to 9,664 MW during the same period. The Company completed seven projects having capacity of 5,730 MW (2007-17) while remaining six projects of 8,170 MW on which the Company had incurred ₹ 112.09 crore towards various pre-order activities, were proposed either for cancellation or deferred/pending decision of the Board of Directors (BoD) citing surplus power scenario in the State.

Project implementation

The Company completed five thermal power projects (Koradi, Parli, Chandrapur, Bhusawal and Khaperkheda) involving 4,730 MW during the period 2012-17. All the five projects were constructed by awarding two comprehensive Engineering, Procurement & Construction (EPC) contracts comprising Boiler, Turbine and Generator (BTG) package and Balance of Plant (BoP) package. The Company awarded 10 EPC contracts worth ₹ 20,867 crore for five projects.

Deficiencies in pre-implementation planning

- Construction of an additional unit in Parli despite water shortage and without ensuring permanent water supply for existing units was not justified.

- Detailed Project Report (DPR) of Bhusawal was defective as it did not provide for construction of railway siding which contributed to delayed project execution.

- Coal requirement of three projects (Koradi, Chandrapur and Parli) was to be met from development of a coal block. Even before development of coal block could commence, issues related to coal quality and cost effectiveness have cropped up raising doubts about its economic viability. As per the prevailing policy, the Ministry of Coal (MoC) had granted Bridge Linkage (BL) for meeting 75 *per cent* coal requirement for period up to March 2019. Thus, existing coal arrangements were inadequate for running the plant to full capacity and there was lack of firm allocation of coal for operation of the three new projects (3,230 MW) beyond March 2019. The Company had not prepared a concrete alternative plan for procurement of coal.

Time overrun

According to terms and conditions of contract, successful completion of trial run of the units was to be considered as completion date of the contract for the project. Delay in completion of trial run of the units ranged between 20 and 49 months from the scheduled completion date. Delayed project execution was attributed to poor performance and financial crisis of EPC contractors. None of the major milestones/activities were completed within the time period stipulated in the contracts.

There was lack of coordination between the BTG and BoP works which affected interrelated works. Further, there was avoidable delay due to factors within management control like delay in awarding BoP contracts; delay in completion of railway siding due to defective DPR and delay in commencement of commercial operation of units in absence of timely obtaining of requisite statutory permissions and Environmental Clearance (EC)/non-compliance with environmental conditions.

Cost analysis

As against the estimated cost of ₹ 25,048 crore for five projects, the actual cost as on date of commercial operations was ₹ 35,012 crore leading to increase in cost by ₹ 9,964 crore.

- Major increase in cost (56 *per cent*) of ₹ 5,620 crore was on account of increase in Interest During Construction (IDC) on loans. Of which, ₹ 1,871.93 crore was disallowed by Maharashtra Electricity Regulatory Commissions (MERC) on the grounds that delay in project execution was not entirely beyond the control of the Company.

- There was loss of equity contribution of ₹ 235.54 crore from the Government of Maharashtra (GoM) in three projects (Koradi, Chandrapur and Parli) consequent to delay in execution of projects.

- The Company incurred excess expenditure of ₹ 19.92 crore on overheads (establishment expenditure) over and above the industry norms in Parli project which was disallowed by the MERC.

Deficiencies during project construction

Audit noticed instances of deficiencies in project execution like pre-mature commissioning of units and issues related to quality of material/workmanship of EPC contractors. This had contributed to low capacity utilisation of new units and consequent irrecoverable loss of revenue on account of disallowance of fixed cost and loss of generation. Other issues like financing of a non-viable water supply scheme, non-adjustment of interest free advance against water charges, blocking of funds and extra expenditure while providing ash disposal arrangements were also observed.

Payments and recoveries

- Abnormal delay was noticed in recovery of liquidated damages of ₹ 2,296.91 crore from the EPC contractors which led to irrecoverable loss of interest of ₹ 237.30 crore.

- There was non-recovery of labour cess of ₹ 154.84 crore from the EPC contractors in three projects.

Financial management

- Failure to obtain payment security mechanisms from Maharashtra State Electricity Distribution Company Limited facilitated payment defaults and accumulation of huge arrears. This impacted liquidity/cash flow position of the Company thereby affecting project financing and repayment of loans.

- The Company paid penal interest of ₹ 78.86 crore for non-payment of loan instalments within due dates, burden of which was passed on to the consumers against tariff principles.

- The Company could not avail equity contribution to the extent of ₹ 80.10 crore from GoM due to non-inclusion of installation of Flue Gas Desulphurisation (FGD) plant in the project cost.

- There were delays in filing petitions with MERC for approval of tariff/capital costs led to delayed realisation of revenue/returns.

- Return on Equity (RoE) of ₹ 1,041.83 crore on new projects for the years 2016-18 was foregone without fulfilment of mandatory pre-conditions laid down by the BoD.

Monitoring

The monitoring system was ineffective in minimising delays in the project and IT based monitoring system was not implemented.

Operational efficiency of new units

- Performance of new units was below the norms prescribed by MERC for Plant Availability (PA), Plant Load Factor, Auxiliary Energy Consumption (AEC), Station Heat Rate, consumption of oil and Operation & Maintenance (O&M) expenses. Non-achievement/adherence to operational norms fixed by MERC resulted in non-recovery of fixed costs, excess AEC, excess consumption of coal and oil and excess expenses on O&M of plants. Low capacity utilisation of new units due to forced outages led to loss of generation of 20,391 Million Units (MUs) during 2012-17.

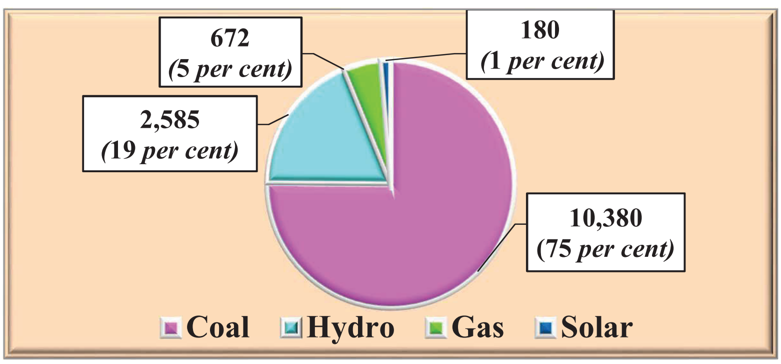
➢ Availability of the generation capacity was as important as to get it dispatched in the Merit Order considering surplus power available in the State. The units having least cost were scheduled/dispatched first and in case power was not required, generating units having higher cost were backed down. Audit observed loss of generation on account of backing down of units of the Company had increased from 143 MUs in 2012-13 to 9,311 MUs in 2016-17 (total loss: 17,313 MUs), leading to loss of revenue (energy charges) to the Company besides burdening the consumers with fixed charges. In respect of new projects, cost of generation was highest at Bhusawal and hence suffered maximum backing down of generation.

Environmental compliances

There was instance of non-compliance with conditions of EC regarding installation of FGD and ozonisation plant at Koradi project. None of the new projects achieved target of 100 *per cent* fly ash utilisation.

Introduction

2.1 Maharashtra State Power Generation Company Limited (Company)[1], a State Public Sector Company, was engaged in the business of generation of electricity. As on 31 March 2017, the Company had an installed capacity of 13,817 Mega Watts (MW). This comprised seven coal based Thermal Power Stations (TPS) of 10,380 MW, a gas based TPS of 672 MW, 180 MW from Solar Power Plants and 26 Hydro Electric Projects of 2,585 MW taken from Government of Maharashtra (GoM) on long term lease as depicted below:



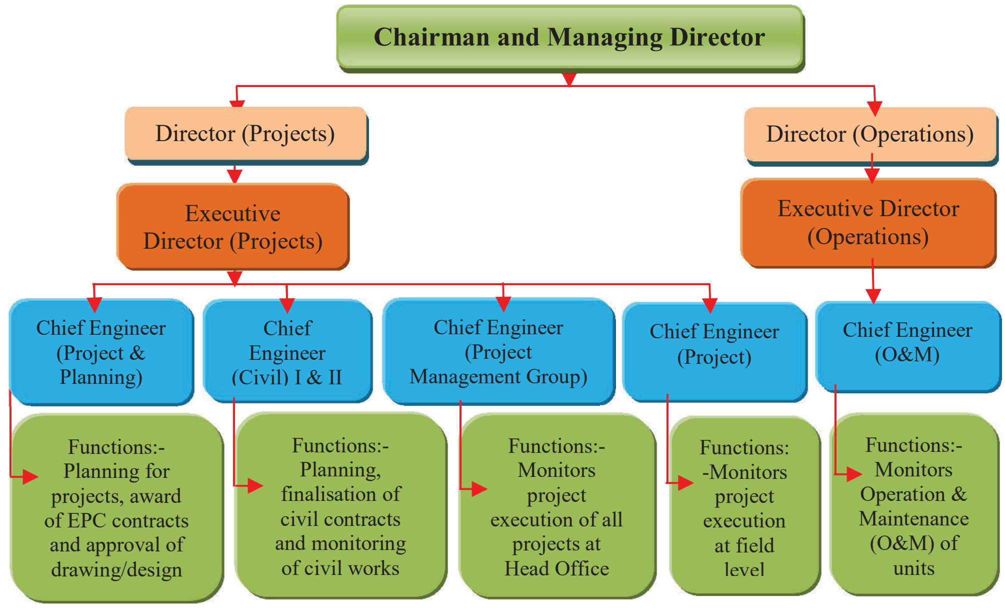
The Company completed seven thermal power projects involving 5,730 MW during 2007-17 as given in ***Annexure 4***. This included two projects of 1,000 MW during 2007-12 and five projects of 4,730 MW during the period 2012-17. The Company had also planned six thermal capacity addition projects of 8,170 MW which were either cancelled or deferred as discussed in **para 2.7**.

Organisational structure

2.2 The Company is under the administrative control of the Energy Department of the GoM. The Management of the Company is vested with the Board of Directors (BoD) consisting of Chairman & Managing Director (CMD) and

[1] Incorporated in May 2005 under the Companies Act, 1956

seven Directors including Principal Secretary (Energy), GoM and two independent Directors. The organisational set up for construction and Operation and Maintenance (O&M) of the projects is as given below:



Financial position and Working results

2.3 The financial position of the Company for the period 2012-13 to 2016-17 is given in ***Annexure 5.*** The working results of the Company for the period 2012-13 to 2016-17 are shown in the table below:

(₹ in crore)

Particular	2012-13	2013-14	2014-15	2015-16	2016-17
Revenue:					
Revenue from operations	16,423.86	16,538.21	18,970.00	19,293.42	18,163.95
Other income	219.18	83.74	266.97	103.64	199.90
Total	**16,643.04**	**16,621.95**	**19,236.97**	**19,397.06**	**18,363.85**
Expenses	**15,715.29**	**16,301.98**	**18,228.01**	**17,618.86**	**19,293.55**
Profit before tax and extraordinary item and tax	927.75	319.97	1,008.96	1,778.20	**(-)929.71**
Extraordinary items	--	--	--	10,520.24	--
Profit before tax	**927.75**	**319.97**	**1,008.96**	**(-)8,742.04**	**(-)929.71**
Net Profit/loss for the year after tax	**487.97**	**111.04**	**435.79**	**(-)8,794.62**	**(-)628.12**

(Source: Annual financial statements of the Company)

The Company had earned profit during 2012-13 to 2014-15 ranging between ₹ 111 crore and ₹ 488 crore and incurred loss during 2015-16 and 2016-17 to the extent of ₹ 8,795 crore and ₹ 628 crore respectively. During 2015-16, assets were revalued as per market rates retrospectively from the date of incorporation (May 2005) of the Company[2] and depreciation was provided on increased value

[2] As per financial re-structuring plan of erstwhile Maharashtra State Electricity Board (MSEB) approved (March 2016) by the GoM

of assets, which contributed to huge loss. During 2016-17, the loss was mainly on account of decrease in revenue from sale of power.

The Company had huge trade receivables *i.e.* outstanding dues from sale of power to Maharashtra State Electricity Distribution Company Limited (MSEDCL), which increased from ₹ 7,133 crore in 2012-13 to ₹ 10,672 crore in 2016-17. This impacted liquidity position of the Company and increased borrowed funds for working capital requirements from ₹ 5,549 crore in 2012-13 to ₹ 8,819 crore in 2016-17.

Scope of audit and objectives

2.4 The Performance Audit (PA) was conducted during May 2017 to September 2017 to analyse adequacy of augmentation of thermal capacity of the Company (2007-17) considering the power requirement *vis-a-vis* supply from all alternate sources in the State. Detailed scrutiny of five projects (4,730 MW[3]) which were completed during 2012-17 was carried out covering aspects related to their pre-implementation planning, project execution, financial management, monitoring, operational performance and compliance to environmental norms along with delay analysis. Besides, operational performance and environmental compliances of two projects of 1,000 MW[4] completed during 2007-12 were also examined.

Audit objectives of the PA were to assess whether:

- planning was adequate considering overall power demand and supply position in the State;
- projects were executed with due economy and efficiency and there existed an adequate and effective monitoring mechanism; and
- performance of the augmented units was as per norms prescribed by Maharashtra Electricity Regulatory Commission (MERC) and environmental rules/regulations were adhered to.

Audit criteria and methodology

2.5 The audit criteria were adopted from the following:

- Thermal capacity addition plans formulated by the Company;
- Electric Power Surveys (EPS) of India published by Central Electricity Authority (CEA), National Electricity Policy (NEP) of Government of India (GoI), guidelines/policies of Ministry of Power (MoP) of GoI, CEA and GoM;
- Feasibility Reports/Detailed Project Reports (DPRs) of the project;
- Government Resolutions, Agenda Notes and Minutes of meetings of BoD, Power Purchase Agreements (PPAs) with Maharashtra State Electricity Distribution Company Limited (MSEDCL);

[3] Koradi: 1,980 MW, Chandrapur: 1,000 MW, Bhusawal: 1,000 MW, Khaperkheda: 500 MW and Parli: 250 MW

[4] Parli: 500 MW and Paras: 500 MW

- Tender documents, Contract Agreements and Central Vigilance Commission (CVC) guidelines;
- Conditions of Environmental clearance, Consent to Establish/Operate the project, Environmental Rules and Regulations of GoI; and
- Tariff regulations/orders issued by MERC.

The audit process involved examination of records at Head Office and Project offices/TPS at five[5] locations entrusted with execution of new projects. Entry Conference was held in May 2017, followed by analysis of data/records with reference to audit criteria, interaction with Management of the Company, issue of draft PA Report to the Management/GoM for their comments. Audit findings were discussed in Exit Conference (September 2017) wherein the representatives of the Company and GoM were present. The views expressed by the Company (September 2017) during Exit Conference and their replies (October 2017) have been considered while finalising Report on the PA. Reply of the GoM was awaited (February 2018).

Acknowledgement

2.6 Audit acknowledges the co-operation and assistance extended by the Company at various stages of conducting the Performance Audit.

Audit findings

Planning for augmentation of thermal capacity

2.7 Power requirement in the State, apart from thermal generation units of the Company, was met from Central Public Sector Undertakings, private power producers, captive power plants and from renewable sources (hydro/solar/ wind). Electricity Act, 2003 also encouraged setting up of thermal power projects by private parties. Accordingly, the MoP, GoI issued (January 2005) Competitive Bidding Guidelines (CBG), allowing private power producers to participate in capacity building through tariff bidding process.

The CEA conducted periodical EPS in the country to forecast State wise electricity demand on short, medium and long term basis. This survey formed the basis for planning for power generation to meet future requirements of the States. Based on 17th EPS report (March 2007) and 18th EPS report (December 2011), the State required capacity additions of 7,891 MW by March 2012 and 9,664 MW by March 2017 respectively.

It was observed that the Company had planned/undertaken 13 thermal power projects of 13,900 MW for completion/implementation during 2007-17 as against the power requirement of 7,891 to 9,664 MW during the same period. This indicated that the Company did not make comprehensive planning considering the capacity additions undertaken by the private parties during this period as evident from the fact that the MSEDCL executed (September 2008 to February 2013) a total of 11 long term PPAs with private power producers for

[5] Bhusawal, Chandrapur, Khaperkheda, Koradi and Parli

procurement of 6,875 MW in the State. The Company completed seven projects having capacity of 5,730 MW (2007-17) while remaining six projects of 8,170 MW[6] on which the Company had incurred ₹ 112.09 crore towards various pre-order activities, were either proposed for cancellation or deferred/pending decision of the BoD citing surplus power scenario in the State.

It is also emphasised that the availability of the generation capacity is as important as to get it dispatched considering surplus power in the State. The units having least cost were scheduled/dispatched first and in case power was not required, generating units having higher cost were backed down under Merit Order Dispatch (MOD) principles. It was observed that consequent to surplus power, there was rising trend of backing down of generating units of the Company as discussed in **para 2.19.7.**

As on 31 March 2017, the total installed generation capacity in the State was 41,410 MW, out of which contribution of private sector and central sector was 19,950 MW (48 *per cent*) and 7,114 MW (17 *per cent*) respectively. The Company had contributed 53 *per cent* of the total installed capacity in the State in April 2007 which was reduced to 35 *per cent* in March 2017 while share of private generating companies had increased from 20 to 48 *per cent* during the same period.

The Company stated (October 2017) that due to enactment of Electricity Act, 2003 and delicensing of generation sector, many private players also planned their projects and demand growth did not happen as per forecast of EPS. Further, requirement of power in the State was assessed by MSEDCL and once the PPA was signed, the Company did not carry out assessment of power requirement but went ahead with the project implementation.

The reply of the Company itself indicated that the capacity addition plan was formulated without assessing the capacity additions from the private companies. Not assessing power requirement after signing of PPAs lacked justification as the MERC had also initiated *suo motu* proceedings for review of PPAs for the six deferred projects and had given an interim order (December 2017) to the Company to carry out a realistic assessment for need of these six projects considering demand supply scenario in the State, competitiveness of generating units, other PPAs of MSEDCL and projected generation from renewable sources. It was also directed to submit a fresh proposal/roadmap for taking decision regarding cancellation of these projects and their consequent removal from the PPAs[7], which was not submitted till date (February 2018).

Pre-implementation planning of five completed projects

2.8 For setting up of a power plant, various pre-order activities like investment approval of BoD/GoM, obtaining various kinds of approvals/statutory clearances, preparation of DPR, selection of site and technology, tying up for

[6] Green field projects: Latur (1,320 MW), Dondaicha (3,300 MW) and Dhopawe (1,980 MW) and replacement projects: Bhusawal (660 MW), Paras (250 MW) and Nashik (660 MW)

[7] Final order of MERC in this regard was awaited (February 2018)

inputs like coal, water, land *etc.* are required to be completed. Timely completion of pre-order activities ensures expeditious completion of projects.

The Company identified four projects[8] for implementation in October 2005 and another project (Parli) in December 2006. As per the capacity addition plan of the Company, these five projects were targeted for completion during XI Five Year Plan (FYP) (2007-12). These five projects were however delayed and completed in XII FYP. It was observed that the Company had not formulated a project management system laying down activity wise schedule for completion of each of the pre-order activities and hence activity wise delays in the five projects could not be identified.

In this connection, audit further observed as follows:

Indecision in selection of plant capacity

2.8.1 Audit observed that the Company obtained investment approval for Parli, Chandrapur and Koradi after a delay of 23, 29 and 36 months respectively from the date of their identification due to uncertainty in settling the planned capacity/ size[9] of these projects. As a result, these projects could be taken up for construction only during July 2008 to September 2009 and completed in last two years of XII FYP (during 2015-17) though planned to be completed in XI FYP.

The Company stated that for bringing latest technology and optimum use of available resources, different studies, approval and clearances from various authorities were involved which led to delay from date of identification to investment approval. The Company accepted the delays at various stages in the process. However, the fact remained that the Company's indecision in finalising the project size/capacity ultimately delayed execution of projects.

Deficiencies in Detailed Project Reports

2.8.2 Formulation of a proper DPR was a critical activity of project planning. Audit observed deficiencies in DPR like non-provision for construction of railway siding and imprudent selection of site as discussed below:

Non-provision for construction of railway siding

2.8.2.1 Audit observed that DPR for Bhusawal project provided for augmentation of railway siding facilities of existing units on grounds of reducing the project cost. This was without assessing its operational feasibility in consultation with the Railway authorities. Though, the DPR did not provide for construction of a new railway siding for coal handling facilities, the Company, after a delay of more than 20 months from date of placing (January 2007) order for Boiler, Turbine and Generator (BTG), awarded (October 2008) a contract for construction of a new railway siding at a cost of

[8] Bhusawal:1,000 MW, Khaperkheda:500 MW, Koradi:1,500 MW and Chandrapur:500 MW

[9] Initial planned capacity of Chandrapur, Koradi and Parli was 500 MW, 1500 MW and 250-300 MW unit which was changed to 1000 MW, 1980 MW and 250 MW respectively

₹ 62.54 crore. The railway siding was completed in April 2013, leading to substantial delay in project completion. This could have been avoided if the same was provided in the DPR and contract for railway siding awarded immediately after placement of order for BTG.

The Company stated that separate railway siding was not provided in the DPR due to cost considerations and the same was subsequently provided for owing to operational constraints on insistence of railways. Audit observed that the MERC had disallowed (April 2015) Interest During Construction (IDC) of ₹ 302.77 crore on account of delay contributed by the Company.

Imprudent selection of site

2.8.2.2 The Company constructed (November 2016) one unit of 250 MW in Parli. The DPR provided that water requirement for the project would be met by increasing the capacity of existing Khadka barrage by raising its height. The Company was aware of the fact that Parli had persistently/perennially faced water shortage/scarcity and hence existing water arrangements were not adequate for running five already existing units[10] at Parli simultaneously. In fact, existing five units were closed on account of water shortage for prolonged periods on various occasions during 2012-13 to 2016-17. Further, water shortage also contributed to delay in completion of the new project. During 2012-17, there was loss of generation of 19,235 MUs due to closure of existing units on account of water shortage. Further, two units of Parli (unit 4 and 5) were closed during the entire year 2016-17 (reserve shutdown) due to water shortage.

The MERC also observed (December 2017) that despite the persistent water shortage situation at Parli TPS, no concrete alternative arrangements have been made by the Company to ensure adequate water for power generation. Besides, Parli TPS was located far from the coal mine areas and hence the generation cost was higher than the stations located closer to the mines, which meant that the unit was inherently prone to backing down under MOD regime.

Thus, selection/construction of an additional unit in Parli at cost of ₹ 2,292 crore despite water shortage and without ensuring permanent water supply for existing units was not justified and the DPR was thus deficient to that extent**.** The Company's subsequent efforts to overcome the persistent water shortage at Parli were also unsuccessful as discussed in **para 2.14.4.1.**

2.8.2.3 The GoI had recommended (December 2007) the State Governments/ power utilities to optimise land requirements for coal based thermal power plants. The Company had assessed (June 2006) land requirement of 35 hectares for 250 MW (expansion unit). The DPR, however, proposed (2008) acquisition of 122.36 hectares land for the project, out of which 55 hectares was to be utilised for the current project and balance land for future expansion. The Company acquired 130.46 hectares of land for ₹ 3.16 crore (₹ 2.42 lakh per

[10] Five units (3 units of 210 MW each and 2 units of 250 MW each)

hectare) which was in excess by 75.46 hectares (130.46 hectares less 55 hectares) land costing ₹ 1.83 crore.

The Company stated that balance land could be utilised for future replacement projects in lieu of existing units which were very old. Further, it would have been very difficult to get adjacent land, if a new project was implemented and cost too would have been very high. The reply was not convincing as capacity additions at Parli were difficult in view of perennial/persistent water shortages besides being contrary to recommendations of GoI to optimise the land requirements. Further, for replacement projects, existing land could be utilised.

Coal arrangements

2.8.3 To ensure that the units are run at optimum level, adequate arrangements for procurement of coal and coal handling system were required. In this connection, audit observed as follows:

Non-availability of firm source of coal at the time of commissioning

2.8.3.1 For meeting coal requirements of the Khaperkheda project, Ministry of Coal (MoC), GoI had granted coal linkage through Letter of Assurance (LoA) issued (July 2010) by Mahanadi Coalfields Limited (MCL). The Company executed (March 2011/June 2012) Memorandum of Understandings (MoU) with MCL followed by execution (January 2013) of Fuel Supply Agreement (FSA), which was after a lapse of nine months from the date of commissioning of the project (April 2012). The MCL commenced coal supplies from April 2013 and hence there was no firm source of coal for running the project during 2012-13. The coal requirement of the project for the interim period was met partially by utilising the coal allocated to other units of the Company. Due to non-availability of firm source of coal, unit could not run on full load during the year 2012-13 which resulted in loss of generation of 659.72 Million Units[11] (MUs).

The Company stated that MCL delayed execution of FSA and did not make supplies under MoUs/FSA despite efforts taken by them at various levels. The fact remained that a new unit could not be operated at optimum level due to non-availability of coal tie-up before its commissioning.

Lack of firm source of coal for period beyond March 2019

2.8.3.2 As per the DPR, coal requirement for three projects at Koradi, Chandrapur and Parli was to be met from Machhakata coal block allocated (February 2006) by the MoC, GoI. The coal allocation was cancelled (August 2014/September 2014) as per the orders of the Supreme Court of India. Subsequently, the MoC allocated (March 2015) another coal block[12] to the Company for end-use of the three projects through e-auction. The tender for selection of a Mine Developer-cum-Operator (MDO) was floated (April 2016) by the Company and finalisation of MDO was in process (February 2018).

[11] As per information furnished by the Company

[12] Gare Palma Sector II coal block in Chhattisgarh

To meet the requirement of coal for the projects in the interim period before start of production from the allotted coal mine, MoC had granted (April 2016) Bridge Linkage (BL). As per the prevailing policy, the BL quantum was allotted for a period of three years from the date of coal allotment which was up to March 2019 and coal supply was 75 *per cent* of the agreed requirement[13] of coal. In view of uncertainties in development of coal block, the Company had requested MoC (July 2017) for extension of BLs up to October 2021, which was not granted till date (February 2018). Further, in the absence of adequate coal arrangements to meet full requirements of the project, the Company suffered loss of generation of 1,814 MUs due to coal shortage in two projects[14] during April 2017-February 2018.

Meanwhile, the Company had submitted (August 2017) before MERC that the coal grades from this coal block were inferior than those specified, which could make the development of coal blocks economically unviable and the Company was considering future course of action in this regard. Accordingly, MERC directed (December 2017) the Company to submit a detailed analysis and action plan with regard to the quality issues and cost effectiveness of development of the coal mine before finalising the appointment of the MDO. The MERC further stated that the Company had not prepared a concrete alternative plan for procurement of coal considering that the units were saddled with high capacity charges and directed to submit a detailed action plan on alternative coal sourcing options, which was not submitted till date (February 2018). Thus, existing coal arrangements were inadequate for running the plant to full capacity and there was lack of firm allocation of coal for operation of the three new projects (3,230 MW) beyond March 2019.

Inadequate Coal Handling System

2.8.3.3 Coal from various collieries transported through railway wagons is unloaded by wagon tipplers at coal stack yard in the Coal Handling Plant (CHP). The Bhusawal project (unit 4 and 5) was provided with two wagon tipplers in the CHP for unloading of coal in the stack yard having capacity of 1.50 lakh Metric Tonnes (MT). The capacity of wagon tipplers was, however, inadequate to unload entire coal meant for the project and hence coal had to be unloaded at stack yard of CHP of old units for reduction of railway demurrage charges. As a result, for meeting coal requirements of the project, coal was transported from old CHP by road. This led to an expenditure of ₹ 6.43 crore on road transportation of coal during the period from February 2013 to March 2017. The BoD had belatedly approved (October 2015) a scheme for providing interconnection between two CHPs at estimated cost of ₹ 24 crore for minimising road transportation costs with direction to the concerned TPS for ensuring implementation of the scheme by March 2017. The work order was, however, not finalised till date (February 2018) and hence the Company continued to incur additional expenditure.

[13] Calculated at 90 *per cent* of normative requirement of projects

[14] Parli: 534 MUs and Koradi: 1,280 MUs

The Company stated that NIT for the work was published in December 2016 and approval of BoD for placement of order on successful bidder was under process.

Project construction

2.9 The Company completed five thermal power projects at Bhusawal, Chandrapur, Khaperkheda, Koradi and Parli involving 4,730 MW[15] during 2012-17. All the five projects were constructed under two comprehensive Engineering, Procurement and Construction (EPC) contracts comprising Boiler, Turbine and Generator (BTG) Package and Balance of Plant (BoP) package. The Company awarded 10 EPC contracts of ₹ 20,867.48 crore for five projects to the lowest bidders as given in table below:

Sl. No.	Name of the project	Name of the contractor (Type of contract)	Date of issue of Letter of Award (LoA)	Awarded cost (₹ in crore)	Zero date of contract	Scheduled completion period (months)	
1	Parli	Bharat Heavy Electricals Limited, New Delhi (BTG)	20/01/2009	798.96	20/10/2009	Unit-8	36
		Sunil Hi Tech Engineers Limited, Nagpur (BoP)	01/01/2010	487.84	01/01/2010		24
2	Koradi	Larsen & Toubro Limited, Hyderabad (BTG)	23/09/2009	7,144.40	23/09/2009	Unit-8	51
						Unit-9	57
						Unit-10	63
		Lanco Infratech Limited, Hyderabad (BoP)	27/07/2010	1,305.72	27/07/2010	Unit-8	44
						Unit-9	44
						Unit-10	44
3	Chandrapur	Bharat Heavy Electricals Limited, New Delhi (BTG)	25/07/2008	2,691.35	09/02/2009	Unit-8	41
						Unit-9	44
		BGR Energy Systems Limited, Chennai (BoP)	12/06/2009	1,631.80	10/07/2009	Unit-8	32
						Unit-9	35
4	Bhusawal	Bharat Heavy Electricals Limited, New Delhi (BTG)	23/01/2007	2,564.82	23/01/2007	Unit-4	43
						Unit-5	47
		TATA Projects Limited, Secunderabad (BoP)	05/11/2007	1,891.95	05/11/2007	Unit-4	32
						Unit-5	36
5	Khaperkheda	Bharat Heavy Electricals Limited, New Delhi (BTG)	23/01/2007	1,352.62	23/01/2007	Unit-5	41
		BGR Energy Systems Limited, Chennai (BoP)	03/07/2007	998.02	03/07/2007		32
		Total		**20,867.48**			

Time overrun and cost analysis

2.10 Time provided for completion of the five projects was within a period of 32 to 63 months from the zero date of the contract *i.e.* date of issue of Letter of Award (LoA) to BTG contractor. According to terms and conditions of the contract, successful completion of trial run of the units was to be considered as

[15] Koradi: 1,980 MW, Chandrapur: 1,000 MW, Bhusawal: 1,000 MW, Khaperkheda: 500 MW and Parli: 250 MW

completion date of the contract for the project. Details of project-wise scheduled date of completion of trial run, actual date of completion of trial run and delay in completion are given below:

Sl. No.	Project	Unit no.	Capacity (MW)	Scheduled date of completion of trial run	Actual date of completion of trial run	Delay (in months)
1	Khaperkheda	5	500	22-06-2010	04-04-2012	20
2	Bhusawal	4	500	22-08-2010	29-10-2012	26
3		5	500	22-12-2010	19-03-2013	26
4	Chandrapur	8	500	08-07-2012	09-11-2015	40
5		9	500	08-10-2012	22-11-2016	49
6	Parli	8	250	19-10-2012	18-11-2016	49
7	Koradi	8	660	22-12-2013	09-11-2015	22
8		9	660	22-06-2014	31-05-2016	23
9		10	660	22-12-2014	14-01-2017	24

(Source: Data furnished by the Company)

It could be seen from the above that none of the nine units (five projects) were completed within the scheduled time limit and delay in completion of trial run ranged from 20 to 49 months. Analysis of delay in project execution is discussed subsequently in **para 2.12, 2.13.1 and 2.13.2.**

2.11 Details of original cost *vis-a-vis* actual final cost (as on the date of commissioning) of five projects were as given below:

(₹ in crore)

Sl. No.	Name of project	As per DPR		Actual final cost on the date of commissioning[16]		Increase in cost	
		Estimated cost	Cost per MW	Cost	Cost per MW	Amount	*Per cent*
1	Koradi	11,880	6.00	14,818	7.48	2,938	24.73
2	Chandrapur	5,500	5.50	7,180	7.18	1,680	30.55
3	Khaperkheda	2,170	4.34	3,570	7.14	1,400	64.52
4	Bhusawal	4,123	4.12	7,152	7.15	3,029	73.47
5	Parli	1,375	5.50	2,292	9.17	917	66.69
	Total	**25,048**		**35,012**		**9,964**	**39.78**

(Source: Data furnished by the Company)

In respect of all these five projects, there was total cost increase of ₹ 9,964 crore (39.78 *per cent*) ranging between 25 *per cent* (Koradi) and 73 *per cent* (Bhusawal). Consequently, actual construction cost per MW of all the units had increased substantially compared to estimated cost in DPR, with

[16] Final cost of Koradi, Parli and Chandrapur may increase on capitalisation of minor balance works being carried out post commissioning of the units

Parli project being most expensive at ₹ 9.17 per MW. The major cost elements which increased/decreased were as follows:

Sl. No.	Increased		Decreased	
	Cost element	Amount (₹ in crore)	Cost element	Amount (₹ in crore)
1	Interest during construction (IDC) on loans	5,620	Overheads/ Contingencies	1,403
2	Basic cost of EPC contract including taxes and duties (BTG and BoP)	3,861	Minor civil works	406
3	Price variation	2,004	Land and development at site	28
4	Civil work	316		
	Total	**11,801**		**1,837**

(Source: Data furnished by the Company)

Financial implications of delayed project execution are discussed subsequently in **para 2.17.1 to 2.17.4.**

Delay analysis

2.12 The Company had appointed (May 2015 to July 2016) third parties[17] to analyse the delays in these five projects. The Company/third party analysis reports attributed delay in project execution due to financial crisis of the BoP contractors and poor performance of BTG/BoP contractors. The reports also highlighted delay in supply of materials and in erection, non-deployment of adequate skilled manpower, failure of some of the equipment and auxiliary during erection and commissioning causing rework, inadequate and inferior quality of coal (Bhusawal) and water shortage (Parli) as given in ***Annexure 6.***

➢ The EPC contracts stipulated scheduled date of completion for various electrical, mechanical and civil works of the projects. The contractors could not complete any of the major milestones/activities within the stipulated time period. These were completed after a delay of six to 2,569 days which delayed the trial run of the units as given below:

Sl. No.	Name of the Project	Unit No.	Delay in completion of major milestones/activities (in days)
1	Khaperkheda	5	62 to 381
2	Bhusawal	4	33 to 464
		5	42 to 539
3	Koradi	8	6 to 659
		9	63 to 878
		10	26 to 799
4	Chandrapur	8	147 to1,050
		9	271 to 1,367
5	Parli	8	10 to 2,569

Delay in completion of major activities delayed the trial run of all the five projects. There was lack of coordination between the BTG and BoP works, due to which interrelated works were affected on account of non-availability of inputs for further works.

[17] MECON Limited, Ranchi (Chandrapur, Khaperkheda and Parli) and Central Power Research Institute (Bhusawal and Koradi)

- As per contractual terms, if the contractor neglected to execute the works as defined in the contract with due diligence and expedition, a notice in writing was to be given to contractor to make good the failure/neglect. In case the contractor fails to comply with notice within one week from the date of service thereof, the Company could take the works wholly or in part out of the Contractor's hand and re-contract with any other person or persons to complete the works or any part thereof at his risk and cost. In addition, the contractor remained responsible for payment of Liquidated Damages (LD) for delay and performance guarantee furnished by the terminated contractor also remained valid for the full value and for the full period of the contract. Though the performance of contractors were poor since commencement of the contract and none of the milestone stipulated in the contract were achieved, the Company did not take required action as per the contractual terms.

The Company stated that termination of contract was an extreme step and would not have been time and cost efficient in view of difficulty in assessment of balance work, time involved in re-tendering, legal issues and issues related to performance guarantees of material/equipment. The reply was not convincing as the MERC had stated (December 2017) that the delay in execution of three projects (Koradi, Chandrapur and Parli) was not due to any sudden or unforeseen activities but slow progress/slackness in project execution was noticed from the initial stages itself during which even adequate manpower was not mobilised for taking up the works. Accordingly, the MERC had disallowed IDC of time overrun in these three projects attributing delay was partly within control of the Company to that extent.

Avoidable delays in project execution

2.13 Audit observed that there was avoidable delay in project completion due to factors within management control as discussed below:

Delay in finalisation of BoP contracts

2.13.1 Completion of main plant (BTG package) was dependent on availability of various inputs from BoP contractor. Audit observed that the Company awarded contracts of BoP package for the five projects after a period of five to 12 months from the date of award of orders for BTG package. This contributed to substantial delay in project completion. In fact, Koradi project was delayed by 797 to 948 days due to delay in availability of Natural Draft Cooling Tower (NDCT) to BTG contractor for all the three units, construction of which was under the scope of BoP contractor.

The Company stated that it was not the period by which BoP orders were placed after placement of BTG package, but synchronisation of BoP activities so as to make the inputs ready for scheduled BTG activity. The reply was not convincing as delays in project execution could have been minimised had the BoP contracts been awarded soon after placement of BTG contracts.The CEA/MERC had also stated (April 2015/December 2017) that delay in finalisation of BoP contracts was one of the factors which contributed to delayed project execution of Parli and Chandrapur projects.

Delay in commencement of commercial operations despite successful completion of trial run

2.13.2 As per terms and conditions of contract, successful completion of trial run of the units was to be considered as completion date of the contract for the project. After the trial run was carried out successfully, unit was handed over by the contractor to the Company for declaration of Commercial Operation Date (CoD). Before CoD, the Company was required to obtain Consent to Operate (CTO) from Maharashtra Pollution Control Board (MPCB) by ensuring compliance with conditions of Environment Clearance (EC) granted by the Ministry of Environment & Forest and Climate Change (MoEFCC), GoI.

Audit observed that out of the nine units commissioned during 2012-17, the Company did not ensure CTO prior to successful completion of trial runs in respect of two units, which led to avoidable delay of 381 days in CoD and loss of generation of 4,454 MUs valuing ₹ 865.58 crore as stated below:

Sl. No.	Unit No	Date of successful completion of trial run	COD	Delay (in days)	Loss of generation		Reasons for delay
					Units (in MUs)	Amount (₹ in crore)	
1	Chandrapur 8	09/11/2015	04/06/2016	207	2,111	319.96	EC for the project granted in January 2009 was valid for a period of five years up to January 2014. Considering, delay in completion of the project, the Company was required to obtain extension of EC before its expiry, which was not done. After a delay of 17 months, application for re-validation of the EC was submitted (July 2015). On receipt of EC on 31 March 2016, MPCB granted CTO on 13 May 2016 for the unit. Thus, delay by the Company to renew the EC before its expiry resulted in avoidable delay in CoD.
2	Koradi 9	31/05/2016	22/11/2016	174	2,343	545.62	The Company submitted (January 2016) application for issue of CTO, which was rejected by the MPCB due to non-compliance with conditions (January 2010) of EC regarding installation of Flue Gas Desulphurisation (FGD) and prescribed pollution control systems. The CTO was conditionally granted by MPCB on 3 October 2016 after obtaining undertaking from the Company that they would install FGD to unit 9 within six months period and Bank Guarantee of ₹ 25 lakh for compliance of the same. Thus, CoD was delayed due to non-compliance with conditions of EC.
	Total			**381**	**4,454**	**865.58**	

The Company stated that:

- In Bhusawal project, Company had obtained CTO after the expiry of EC since all the trial runs were completed. Hence, it was decided to directly go for CTO for Chandrapur 8 unit to save further delay.

- The Company had appealed to MoEFCC for waiver of Flue Gas Desulphurisation (FGD) condition for Koradi 9 and the same was intimated to MPCB which led to delay in obtaining CTO.

The reply itself indicated that CTO was delayed on account of various reasons like expiry of EC, non-compliance with terms and conditions of EC and lack of follow up with MPCB which led to IDC of ₹ 289.22 crore during the delay period thereby increasing the project cost to that extent, which was avoidable.

Deficiencies in Project execution

2.14 Audit observed instances of deficiencies in project execution like pre-mature commissioning of units, issues related to quality of material/ workmanship of EPC contractors, water arrangements, Ash disposal arrangements/systems and coal conveying arrangements.

Premature commissioning of projects

2.14.1 As per MERC regulations, full Annual Fixed Charges (AFC) incurred by the Company could be recovered only if actual availability was equal to or higher than the approved target. In case of shortfall in Plant Availability (PA) during any year, recovery of AFC was proportionately reduced and hence the Company had to bear that loss. Audit observed that there was premature commissioning of two units which adversely impacted their PA as discussed below:

- The Company declared commercial operation of Parli project on 19 November 2016. However, major/critical works related to CHP, necessary for sustained operation of the project were not completed. Consequently, the unit was withdrawn on the same day (19 November 2016) up to 17 March 2017 for completion of pending works. Thus, the unit was closed for 118 days (89 *per cent*) out of total 132 days available for operation during 2016-17. This was the major factor which contributed to extremely low PA of 4.44 *per cent* as against norms of 85 *per cent* leading to non-recovery of fixed cost (refer **para 2.19.1)**.

- The Company declared commercial operation of Koradi (unit 10) on 17 January 2017, without completion of major/critical works related to Ash Handling Plant (AHP) and NDCT, which were necessary for sustained operation of the unit. Consequently, unit was withdrawn immediately after its commissioning from 07 February 2017 to 08 April 2017 for completion of pending works. As a result, the unit was closed for 52 days (71 *per cent*) out of total 73 days available for operation during 2016-17. This was the major factor which contributed to lower PA of 47.2*6 per cent* as against norms of 85 *per cent* and loss due non recovery of fixed cost as discussed in **para 2.19.1.**

The Company stated that commercial operation declaration was final target of the Company so as to start its earning and there by commencing repayment of the loan. The fact remained that pre-mature commissioning of units led to non-recovery of fixed costs during that period.

Irrecoverable loss of revenue due to defective/inadequate systems

2.14.2 As per the terms and conditions of the EPC contracts, generating units were to be commissioned after successful completion of trial run during which all the equipment should run to prove their performance and contractor shall demonstrate capabilities of his supplied equipment as per contract specifications. If the trial run was not satisfactory then based on the observations during trial operation, necessary modification/repairs to the plant/equipment were to be carried out by the contractor and on completion of such works, the trial operation was to be repeated again on a date and for a period to be mutually decided. After commissioning of units, the contractor was responsible for replacement/rectification/repair of any defective part in the equipment arising from faulty installation/design, material or workmanship at his cost during defect liability period of one year from the date of successful completion of Performance Guarantee tests. However, the contractor was not liable for any indirect or consequential losses or damages on this account and hence the Company needed to ensure that identified problems are rectified prior to commissioning of the units to safeguard its financial interests.

Audit observed instances of non-rectification of defects noticed since construction stage and erection/acceptance of plants with inadequate systems in three projects which contributed to lower PA/Plant Load Factor (PLF) and consequent irrecoverable loss of revenue on account of disallowance of fixed costs and loss of generation as discussed in **para 2.19.1.** Project wise cases are as discussed below:

Koradi project

- Fly ash generated during the process of coal burning is collected in Electrostatic Precipitator[18] (ESP). The Company had provided for dry fly ash evacuation system in Ash Handling Plant (AHP) of all the five projects for evacuation of fly ash from ESP. The installed system, however, could not perform satisfactorily and hence the Company had to additionally install wet ash evacuation system at cost of ₹ 95.76 lakh at two earlier projects (Bhusawal and Khaperkheda) for overcoming system problems. In fact, there was a major incidence of collapse (November 2013) of ESP hoppers of Bhusawal project (unit 5) due to huge accumulation of fly ash which substantially delayed commercial operation of the unit at full load. Accordingly, the Company had decided (March 2014) to implement standby arrangement of wet fly ash evacuation system for ongoing projects[19] before their commissioning for overcoming AHP problems.

[18] ESP has 108 hoppers (nine rows having 12 hoppers each) for ash collection per unit

[19] Koradi, Chandrapur and Parli

Audit observed that wet fly ash system was not installed before commissioning of first unit at Koradi (unit 8). Further, the unit was commissioned (December 2015) with contingency arrangement of buffer hopper which was inadequate for optimum performance of unit, despite awareness of the fact that any indirect or consequential losses or damages on this account were not recoverable from the contractor. Due to ash evacuation problem from ESP hoppers, unit had to be run on partial load besides there were various instances of closure of unit due to high levels of fly ash and tripping/non-availability of ESP fields leading to huge loss of generation to the extent of 927 MUs[20] of ₹ 233.25 crore during 2015-17. Similar problems of AHP were noticed in unit 9 which led to loss of generation of 361 MUs (valuing ₹ 84.26 crore). AHP problems constituted 26 and 42 *per cent* of total generation loss of unit 8 and 9 respectively, which was the major reason for lower PA/PLF. The Company, after a lapse of 18 months from commissioning of the unit, approved (July 2017) for installation of wet ash evacuation system at cost of ₹ 25.17 crore for all the three units[21] and the work was yet to commence (February 2018).

➢ Problems of Induced Draft/Forced Draft fans[22] in the main plant of unit 8 and 9 installed by the BTG contractor[23] were noticed by the Company since trial run/construction stage. The problems were not rectified prior to commissioning and were recurring till date (February 2018). During 2015-17, the Company suffered loss of generation of 615 MUs[24] (unit 8:297 MUs and unit 9: 318 MUs) valuing ₹ 148.15 crore[25], which was eight and 37 *per cent* of total generation loss of unit 8 and 9 respectively.

Chandrapur project

Audit observed that there were 10 incidences of Boiler Tube Leakages (BTL) during trial run/construction stage of the project (unit 8 and 9). The Company did not ensure rectification of BTL problem from the BTG contractor[26] prior to commissioning of units. As a result, there were recurring incidences of BTL even after commissioning of plants, which led to forced outages of the both the units on 11 occasions[27] during 2016-17 leading to loss of generation of 586 MUs[28] valuing ₹ 128.80 crore[29]. In fact, BTL accounted for 24 and 42 *per cent* of total generation loss of unit 8 and 9 respectively and thus was the major factor which contributed to lower PA. Though the Company attributed BTL on erection failure of Bharat Heavy Electricals Limited (BHEL),

[20] As per information furnished by the Company and energy charges approved by MERC

[21] First two rows of ESP hoppers of all the three units

[22] Induced Draft fan sucks out the exhaust gas from inside the furnace and discharges it into the chimney and then the atmosphere. Forced draft fan supplies fresh atmospheric air into the furnace to support the combustion of fuel

[23] Larsen & Toubro Limited, Hyderabad (BTG)

[24] As per information furnished by the Company

[25] Unit 8 : ₹ 73.93 crore and unit 9: ₹ 74.22 crore

[26] Bharat Heavy Electricals Limited, New Delhi

[27] Unit 9: 4 BTLs (233 MUs) and unit 8: 7 BTLs (353 MUs)

[28] As per information provided by the Company

[29] 586 MUs x ₹ 2.198 per unit being MERC approved energy charges for 2016-17

consequent loss of revenue could not be recovered from the contractor in view of the contractual terms.

Bhusawal project

Audit observed that the project had faced problems of BTL since trial run/ construction stage. The Company did not ensure rectification of BTL problem from the BTG contractor[30] prior to commissioning of units. As a result, there were recurring incidences of BTL even after commissioning of plants, which led to forced outages of the both the units during 2012-13 to 2016-17 leading to loss of generation of 1,521 MUs[31] (unit 4: 1,096 MUs and unit 5: 425 MUs). BTL accounted for 14 and nine *per cent* of total generation loss of unit 4 and 5 respectively, which was one of the recurring factors impacting operational performance of the units.

The Company stated that:

- The proposal for providing standby arrangement of wet fly ash evacuation system at Koradi was kept on hold due to non-readiness of AHP by BoP contractor. It was also decided to judge the performance of ash evacuation system during operation of the units before taking decision of installation of wet ash system. As the performance of ash evacuation system was not satisfactory due to poor coal quality, it was decided to install the wet ash system. Further, fan problems occurred due to minor defects which had been attended immediately.

- BTL was a general phenomenon which had minimised after completion of stabilisation period of all the units and various actions had been taken.

- The performance related issues were attributed to stabilisation period of units and supply of lower quality of coal having high ash content

The reply was not tenable as it did not address the issue of non-rectification of recurring defects which had been noticed/identified during trial run which adversely impacted operational performance of the units and consequent irrecoverable loss of revenue. Further, reply was silent on the issue of installation of inadequate AHP at Koradi and non-implementation of preventive /corrective action for overcoming known system problems prior to commissioning of units as already decided.

Modification/rectification of newly installed systems

2.14.3 As per the scope of EPC contracts mentioned under General Conditions of the Contract, contractors were responsible for detailed design and engineering of all equipment and necessary auxiliaries and systems as a whole including complete civil works. These were required to conform to high standards of quality and should be capable of performing in continuous operation in satisfactory manner. Further, contractors within the contract price

[30] Bharat Heavy Electricals Limited, New Delhi

[31] As per information provided by the Company

were required to provide all supplies and services including any equipment or accessories not specified in the contract but which were required for satisfactory completion of the project and safe/successful Operation and Maintenance (O&M) of the same on total turnkey basis.

Audit, however, observed that the Company carried out various modifications/ rectifications in the systems installed by EPC contractors at two projects (Koradi and Chandrapur) for sustained and safe/successful operation at its own cost incurring extra expenditure of ₹ 5.15 crore. Further, various works for modification/rectification of installed systems[32] involving expenditure of ₹ 6.10 crore were also approved by the Company for execution at their cost. Further, the Company had also incurred expenditure ₹ 42.11 crore in Koradi project for completion of works not carried out by the EPC contractors and repairs/restoration of various auxiliaries/equipment prematurely failed during defect liability period. Though, these works were stated to be executed at risk and cost of the contractors[33], no recovery was made till date (February 2018).

The Company had to bear consequential generation losses and damages arising from installation of inadequate and defective equipment as the same were not recoverable from the contractors as per the contractual terms besides exposing plant to safety risks. These issues were not considered adequately by the Company before acceptance of plants after trial run from the contractors.

The Company stated that works were required for smooth running of the system, meeting normative parameters and safety of the plant/human being. Further, works of ₹ 2.26 crore at Koradi were necessitated due to non-availability of washed coal as per plant design. Thus, the reply of the Company indicated that the design and drawings of the project finalised/approved by the Company were not adequate for safe/successful O&M of the plant as accepted in the reply.

Water arrangements

2.14.4 The Company executed MoUs/agreements with the State Government authorities for supply of water for the projects. In this connection, audit observed as follows:

Non-viable water scheme

2.14.4.1 In order to overcome persistent water shortage at Parli, the Company decided to finance a water supply scheme of the GoM. Accordingly, the Company executed (March 2013) a MoU with Godawari Marathwada Irrigation Development Corporation (GMIDC), Aurangabad for constructing Majalgaon Lift Scheme to supply flood water in rainy season from Loni Sawangi barrage. As per terms of MoU, Company was required to pay capital contribution of ₹ 199.86 crore and GMIDC/Water Resources Department (WRD) agreed to supply water from Majalgaon dam to Parli TPS. The Company paid an amount

[32] Coal handling plant, turbine, coal mill reject system, control panels *etc*.

[33] Larsen & Toubro Limited, Hyderabad : ₹ 35.15 crore and Lanco Infratech Limited, Hyderabad : ₹ 6.96 crore

of ₹ 142 crore to GMIDC during the period from June 2013 to January 2015 by availing loan from Power Finance Corporation Limited (PFC).

Audit noticed that GMIDC had already awarded (November 2010) the contract for execution of project at cost of ₹ 163.68 crore, more than two years before execution of MoU. The work[34] was, however, stopped since March 2015 due to land acquisition problems. The GoM constituted (September 2015) a committee[35] for revaluation of the scheme with directions to submit the report by October 2015, which had not been submitted till date (February 2018). The GoM further pointed out (May 2016) that water in the barrage was never full during last four to five years (2011-12 onwards) and hence it was not possible to supply water to Parli project from the scheme.

Thus, financing of a scheme without ascertaining the viability thereof, resulted in blocking of funds of the Company to the extent of ₹ 142 crore and avoidable interest expenditure of ₹ 57.90 crore[36], which added to financial burden to the Company.

The Company stated being a deposit work it was the responsibility of the GMIDC for execution of the scheme including acquisition of land. The reply of the Company was not tenable as though the scheme was under execution by GMIDC, the Company agreed to finance the same and hence necessary due diligence should have been exercised to ascertain viability of the scheme.

Non adjustment of interest free advance against water charges

2.14.4.2 The Company receives raw water for old units[37] of Bhusawal TPS from Hatnur reservoir. For meeting water requirements of new units of Bhusawal project (unit 4 and 5) from the existing Hatnur reservoir, the Company approached GoM and Tapi Irrigation Development Corporation (TIDC), Jalgaon. The Company's request was rejected citing non-availability of water. The GoM suggested that additional water requirement could be met from Ozerkheda dam. Accordingly, the Company executed (August 2008) a MoU with GoM and TIDC for supply of additional water for Bhusawal project from Ozerkheda dam. As per terms and conditions of MoU (August 2008), the Company paid interest free advance of ₹ 60 crore to TIDC during the period from September 2009 to February 2012. This advance was to be adjusted against the charges of water being supplied from Hatnur reservoir. Both old and new units were supplied water from Hatnur reservoir as the proposed Ozerkheda dam was not completed till date (February 2018).

Audit observed that the Company did not adjust the advance against water bills of the old units which were supplied water from Hatnur reservoir and continued

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[34] Supply of pipelines and erection of pumping station was completed

[35] Includes Principal Secretary of WRD, Energy, Drinking Water and Sanitation Departments, CMD of the Company and Chief Engineer (Hydrology project), Nashik

[36] The loan was drawn during the period from March 2013 to January 2015 and the prevailing rate of interest was 10.22 *per cent per annum*

[37] Two units of 210 MW

making payments[38] for the same till date (February 2018). Adjustment of advance was started belatedly against water bills of new units (500 MW) after its commissioning in November 2012 and only ₹ 8.86 crore was adjusted till March 2017. The entire advance could have been adjusted by October 2015. Thus, non-adjustment of advance against water charges as per MoU resulted in loss of interest the extent of ₹ 24.93 crore[39], when the Company was already under financial constraints.

The Company stated that agreement for the water charges of old units was signed with Irrigation Department (GoM), Jalgaon while MoU was signed with TIDC. The reply was not acceptable as the terms of MoU clearly provided for adjustment of advance against water charges of old units. The Company during Exit Conference (October 2017) assured that terms and conditions of MoU would be reviewed.

Ash disposal arrangements

2.14.5 For sustained operation of a thermal generation unit, arrangements are made for disposal of ash in dry form or through water slurry from ash pipe lines to ash bund. Audit observed as follows:

Blocking of funds and extra expenditure

2.14.5.1 As per the provisions of Maharashtra Public Works Manual (March 1984), no work should be started on land which was not acquired and not under possession.

In respect of Khaperkheda project, the Company planned for construction of ash bund on the land acquired at Nandgaon. For laying of ash disposal pipe lines from Khaperkheda project to Nandgaon ash bund, the Company had acquired (December 2001 to June 2002) a strip of land. Subsequently, GoI acquired (2005-07) certain portion of the above land for Western Coalfields Limited (WCL) and the Company ceased to be owner of the said land. The Company and WCL identified an alternate corridor for laying of ash pipelines and accordingly a proposal along with a draft MoU was submitted (May 2010) to the GoI. The GoI granted (June 2010) permission for the same with condition that ownership of land would remain with WCL and the Company would pay lease rent. The MoU was, however, executed after a delay of more than four years (October 2014) and lease agreement for transfer of land has not been executed till date (February 2018). Though, the land required for laying ash pipe lines was not in possession of the Company, it awarded (August 2010) the contract for construction of Nandgaon ash bund, which was completed in March 2016 at cost of ₹ 74.37 crore. The ash bund was lying idle due to non-availability of ash pipe lines required for transporting fly ash from the project (February 2018). Thus, there was blocking of funds to the extent of ₹ 74.37 crore due to construction of ash bund despite non-availability of land

[38] Payment of ₹ 80.21 crore was made till March 2017

[39] Interest worked out on payments made against the water bills of old units at the rate of 10 *per cent per annum* being average rate of working capital/cash credit

for laying ash pipe lines, which strained resources of the Company when it was already under financial constraints.

As the ash bund was not constructed/available, the Company had to make contingency/standby arrangement for ash disposal from existing Waregaon ash bund by incurring extra expenditure of ₹ 38.05 crore, in order to meet exigency of COD (April 2012) of the project.

The Company stated that ash pipe line would be completed before March 2018 and ash bund would be utilised.

2.14.5.2 The Company awarded (January 2014) a contract for laying of RCC pedestals for ash disposal pipe lines of Khaperkheda project, including that on WCL land. The agency erected 170 numbers of pedestals on the WCL land at a cost of ₹ 49.62 lakh. The Company thereafter suspended the work in June 2014 and contract was finally short closed (June 2015) in view of court case filed by WCL against the Company for carrying out construction on their land. Thus, the Company incurred unfruitful expenditure of ₹ 49.62 lakh on work undertaken on WCL land.

The Company stated that construction works were carried out as land was in possession of Company before WCL notification and alternative strip of land was not provided by WCL, which was essential for disposal of fly ash. The reply was not tenable as the Company had commenced construction on WCL land without obtaining their consent.

Coal conveying arrangements

Loss of Interest due to funds lying idle with a third party

2.14.6 The Company had constructed a new railway siding for transporting coal in Bhusawal which was crossing National Highway (NH) and hence it was proposed to construct a Road Over Bridge (ROB) on NH. The Company referred the matter to National Highway Authority of India (NHAI) for construction of ROB on deposit basis. NHAI approved (December 2010) construction of a temporary manned crossing to ensure transportation of coal to the project until completion of ROB. NHAI insisted on advance payment of entire cost and execution of agreement before installing temporary gate on NH for blocking traffic during transportation of wagons. The Company accepted (April 2012) the conditions of NHAI and an agreement was executed (April 2012) for construction of ROB on advance payment deposit of ₹ 124.52 crore (May 2012). The work of construction was, however, not commenced till date (February 2018). The expenditure was funded from loan from Rural Electrification Corporation Limited and the Company had incurred ₹ 71.04 crore towards interest[40] on funds lying idle with NHAI (till October 2017) which had affected profitability of the Company.

[40] Loan was drawn on 31 May 2012 and current rate of interest is 10.22 *per cent per annum*

Payments and recoveries

2.15 Audit observed various shortcomings like abnormal delay in recovery of Liquidated Damages (LD), non-recovery of labour cess in contravention of the statutory provisions, non-recovery of interest free mobilisation advances as per CVC guidelines, irregular refund of interest and excess payment to contractors as discussed below:

Non-recovery of Liquidated Damages for delay

2.15.1 The EPC contracts provided for levy of LD at the rate of half *per cent* of the contract price per week of delay or part thereof subject to maximum of 10 *per cent* of the contract price for delay in the completion of works. The contract further provided that liability of payment for LD would be established once the delay in completion was established on the part of the contractor and the Company should not be required to take any further action like arbitration or approaching the court of law for levying the LD. The LD for delay was recoverable at sole discretion of the Company from contract price or from other securities available.

It was observed that all the five projects were completed (April 2012 to January 2017) with delay, which the Company attributed to poor performance of the contractors. As per information furnished by the Company, LD of ₹ 2,705.81 crore[41] was recoverable from the 10 contractors as per the contractual terms. The Company, however, had recovered LD of only ₹ 408.90 crore leading to shortfall of ₹ 2,296.91 crore. This included five contracts where no recovery was made though an amount of ₹ 870.89 crore was recoverable. The Company had refunded LD collected from contractors from time to time against Bank Guarantees and deferred further recovery citing special financial support to contractors for expediting completion of projects. The Company, however, should have finalised LD immediately after completion of the projects. Thus, there was abnormal delay in recovery of LD which led to irrecoverable loss of interest to the extent of ₹ 237.30 crore[42].

It was further observed that the Company had belatedly appointed (May 2015 to January 2017) third party agencies at the cost of ₹ 3.28 crore for delay analysis. Third party analysis report of three projects (Koradi, Khaperkheda and Bhusawal[43]) were submitted (November 2015 to March 2017) to the Company while that of two projects (Chandrapur and Parli) were awaited (February 2018). The report of Koradi (October 2016) and Khaperkheda (March 2017) also concluded that substantial delays were due to BTG and Balance of Plant (BoP) contractors while in respect of Bhusawal project BoP (November 2015) contractor was responsible for delay. No action was, however, taken for recovery of LD till date (February 2018).

[41] Koradi: ₹ 1,261.80 crore, Bhusawal: ₹ 518.65 crore, Chandrapur: ₹ 498.07 crore, Khaperkhed: ₹ 273.89 crore and Parli: ₹ 153.40 crore

[42] Calculated at the rate of 10 *per cent per annum* on unrecovered LD amount of ₹ 2,296.91 crore from date of commissioning of units till October 2017

[43] Delay analysis report was sought for only BoP contract for Bhusawal

The Company stated that LD would be recovered from contractors after acceptance of delay analysis report. The reply was, however, silent on abnormal delays in finalisation of LD despite the third party analysis reports attributing project delays to contractors.

Non-recovery of labour cess

2.15.2 The GoM had notified (April 2008) recovery of labour cess from the contractors at the rate of one *per cent* of the construction cost of the building/ project (excluding cost of land) and deposit the same to the Building and Other Construction Workers Welfare Board within a period of 30 days from the date of collection.

After issue of GoM notification, the Company awarded various contracts in respect of projects at Koradi, Chandrapur and Parli. As per the terms and conditions of contracts, contract price included all taxes and duties and the contractors were entirely responsible for payment of all taxes, license fees, registration fees *etc*. and other such levies imposed in owner's country and outside the owner's country within the contract price. Audit observed that the Company had paid an amount of ₹ 15,484 crore (up to May 2017) to EPC contractors of three projects without recovery of labour cess of ₹ 154.84 crore in contravention of the Act.

The Company stated that project construction works were carried out in premises of existing plants for which necessary approvals were obtained under the Factories Act, 1948. Hence, labour cess was not applicable and condition for recovery of the same was not incorporated in the work orders. The reply was not convincing as various High Courts[44] from time to time as well as Supreme Court of India in its order dated 18 October 2016 had held that construction workers were not covered under the Factories Act, 1948 and that contractors were liable to pay labour cess in absence of any operations/manufacturing process. Further, contractual terms provided for payment of all taxes/levies within the contract price.

Recovery of mobilisation advance

2.15.3 As per CVC guidelines (April 2007), recovery of interest free mobilisation advance should be time based instead of being linked to progress of work. This would ensure that even if contractor was not executing the work or executing at a slow pace, recovery of advance could commence and scope of misuse of such advance could be reduced. As per the terms and conditions of EPC contracts, 10 *per cent* mobilisation advance paid to the contractors was interest free up to the scheduled date for completion of entire work under the contract. The Company granted advance of ₹ 1,437 crore for five projects, against which an amount of ₹ 1,138 crore was recovered up to the scheduled completion date based on bills submitted by the contractors. There was unrecovered advance of ₹ 299 crore which was lying unutilised with the contractors at the end of the scheduled contractual period.

[44] High Courts of Allahabad, Odisha, Madhya Pradesh and Karnataka

The Company stated that the recovery of advance was made through bills but was silent on not ensuring time based recovery of advances.

Refund of interest

2.15.4 In case of delays beyond the stipulated completion dates, interest[45] was to be recovered from the contractors on the outstanding unrecovered mobilisation advance. Audit observed that project offices at Chandrapur and Parli had recovered interest from BoP contractors to the extent of ₹ 15.08 crore and ₹ 6.18 crore respectively. However, subsequently entire amount of ₹ 21.26 crore was refunded (March 2015 to June 2016) to the contractors against the contractual terms, citing extension of financial support for early completion of project.

The Company stated that refunded amounts would be recovered from the contractors at the time of final payment to the contractor. The fact remained that the act of the Company was contrary to the terms and conditions of the contract and led to loss of interest to the Company.

Excess payment for imported coal

2.15.5 The Company issued (September 2011 to October 2012) Letter of Award (LoA) to MMTC Limited for supply of non-coking (steam) coal of foreign origin at Bhusawal, Khaperkheda and Chandrapur. According, to the terms and conditions of contract, in case basic concessional Custom Duty (CD) became applicable during the contractual period, the seller was responsible in all manner including completion of formalities in order to obtain concession in CD and such benefit was to be passed on to the purchaser. In case, the same was not availed, the Company had the right to recover from outstanding payments of the seller.

Audit observed that the MMTC supplied imported coal from Indonesia during the period from October 2011 to March 2013 against the said contracts. As per the notification of GoI (June 2011 and March 2012), imported coal from Indonesia was charged preferential Basic Custom Duty (BCD) of zero *per cent*. However, the Company made reimbursement of ₹ 13.40 crore to MMTC towards BCD on the basis of documentary evidence regarding payment of the same as furnished by MMTC. However, as the MMTC did not avail the benefit, the same should have been recovered from the supply bill which was not done by the Company. Thus, there was excess payment of ₹ 13.40 crore to MMTC.

The Company while accepting the audit findings stated that MMTC had been requested to deposit the amount of ₹ 13.40 crore to it and they had failed to do so.

[45] 14.25 *per cent per annum* for BoP and one *per cent* above borrowing rate for BTG contracts

Non-recovery of capital cost

2.15.6 The Company executed (October 2008) an agreement with Nagpur Municipal Corporation (NMC) for construction and operation of a Sewage Treatment Plant (STP) for utilisation of sewage treated water for Koradi project. As per the agreement, NMC was required to pay ₹ 90 crore towards capital cost of the project, as and when demanded by the Company or as per physical progress of work, whichever was later. However, the Company did not safeguard its financial interest by incorporating a suitable provision in the agreement regarding payment of interest in case of delayed payment by NMC.

The Company completed construction of the STP on 19 July 2016 at the cost of ₹ 177.33 crore from its own funds/loan. It was observed that the NMC paid an amount of ₹ 79.09 crore till 31 August 2015 in instalments. However, balance amount of ₹ 10.91 crore has not been paid by the NMC till date (February 2018) despite demands raised by the Company on various occasions (October 2015 to May 2017). As a result, the Company had to bear interest burden of ₹ 1.67 crore[46] thereon, which increased project cost to the same extent.

The Company stated that continuous follow up was being made with NMC for recovery of balance amount. The fact remained that the Company had to bear the interest burden in absence of any penal clause in the agreement.

Financial management

2.16 Audit observed the financial management of the projects was not effective. Various shortcomings/deficiencies were observed like failure to obtain prescribed payment security mechanisms from Maharashtra State Electricity Distribution Company Limited (MSEDCL) which facilitated payment defaults and accumulation of huge arrears, payment of penal interest on loan which was incorrectly recovered from the consumers through tariff, foregoing of equity contribution from GoM due to non-inclusion of cost of mandatory Flue Gas Desulphurisation (FGD) plant in the project cost, non-availing of fiscal benefits available under Mega Power Project policy of GoI, failure to ensure timely realisation of revenue/returns due to delays in issue of bills and filing petitions with MERC for approval of tariff/capital costs and unjustified foregoing of Return on Equity (RoE) which compromised financial position of the Company. The audit observations are discussed as under:

Project financing and servicing of loans

2.16.1 As per the project financing arrangement, the GoM granted equity of 20 *per cent* of the project cost and balance funds were to be arranged by the Company from debt financing and internal resources. Major source of revenue of the Company was sale of power to MSEDCL. The PPA provided for two payment security mechanisms for ensuring timely payments by the MSEDCL *i.e.* Letter of Credit (LC) and Escrow Account (for new projects). In case of

[46] On ₹ 10.91 crore at the rate of 10 *per cent* per annum for 560 days (20 July 2016 to 31 January 2018)

default/failure of MSEDCL to pay monthly bills or part thereof within the due date, Company could encash LC, invoke escrow payment mechanism in case LC was not adequate/operational and sell power to third party.

Audit observed that Company could not obtain payment security mechanisms from MSEDCL as provided in the PPA. This resulted in payment defaults by MSEDCL, as dues from sale of power increased from ₹ 7,133 crore (March 2013) to ₹ 10,671.94 crore (March 2017) which consequently impacted the liquidity/cash flow position of the Company. This had an adverse impact on project financing and repayment of loans as discussed below:

Equity investment

2.16.1.1 As per MERC (MYT) Regulations, 2011, the Company could implement power projects with a maximum equity contribution of 30 *per cent* of the project cost[47], on which the Company was entitled for revenue by way of RoE at the rate of 15.50 *per cent*[48]. Audit observed that the Company could not infuse equity to the extent of 30 *per cent* in all the five projects[49] owing to liquidity crunch and deficit in equity funding was met through loan from financial institutions. Equity financing of the five projects ranged between 15.49 *per cent* (Chandrapur) to 22.89 *per cent* (Khaperkheda) of their capital cost approved by the MERC. Thus, there was lower equity investment to the extent of ₹ 3,003.44 crore which deprived the Company of the opportunity to earn higher profit at the rate of 15.50 *per cent* on the same.

The Company stated that it did not have internal resources to fund the remaining 10 *per cent* equity and hence it was decided to avail debt funding.

Burden of penal interest passed on to consumers against tariff principles

2.16.1.2 As per the terms and conditions of sanction letter of loans availed from Financial Institutions,[50] penal interest[51] was payable in case of default in payment of loan installments (principal and interest) on due dates. Audit observed that during 2012-13 to 2016-17, the Company paid penal interest of ₹ 78.86 crore in respect of four projects[52] as the loan installments were not paid within due dates. As per MERC tariff principles, any penalty paid could not be recovered from consumers through tariff. The Company, however, had neither informed nor MERC sought information regarding penal interest paid on loans during tariff determination and there was no disallowance of penal interest through tariff orders.

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[47] Balance 70 *per cent* of the project by way of debt financing

[48] On projects commissioned on or after 1 April 2011

[49] Bhusawal, Khaperkheda, Koradi, Chandrapur and Parli

[50] Rural Electrification Corporation Limited (REC) and Power Finance Corporation Limited (PFC)

[51] At the rate of two *per cent* over and above interest rates of loan from PFC and as per prevailing loan policy from REC

[52] Khaperkheda: ₹ 37.41 crore, Bhusawal: ₹ 0.86 crore, Parli: ₹ 14.50 crore and Paras: ₹ 26.09 crore

The Company stated that it was constrained to delay debt servicing for certain period owing to adverse liquidity situation on account of huge receivables from MSEDCL.

Foregoing of funds from GoM due to non-inclusion of mandatory work in project cost

2.16.2 The MoEFCC had granted (January 2010) EC for the Koradi project with a condition that FGD system for one of the units should be installed initially and the requirement, if any, for installation in other two units would depend upon prevalent ambient levels of sulphur. Prior to grant of EC, the Company had represented before MoEFCC seeking waiver for installation of FGD system which was rejected (December 2009) on the grounds that justification for waiver was valid only from commercial interest and did not hold any merit on public health[53]. Subsequent request (September 2013) of the Company for waiver was also rejected (November 2013) by MoEFCC. The BoD, however, belatedly decided (November 2016) to install FGD system at one unit at estimated cost of ₹ 400.50 crore (including IDC) by inviting tenders on EPC basis. The Company invited bids (May 2017) and contract was not finalised till date (February 2018).

As installation of FGD system was mandatory, the Company should have provided for the same in the project cost submitted (November 2015) to the GoM. As per the prevailing policy, GoM contributed 20 *per cent* of the project cost by way of equity. In absence of provision of FGD in the project cost, the Company lost the opportunity to avail funds of ₹ 80.10 crore from GoM (20 *per cent* of ₹ 400.50 crore) and hence was borne by the Company from loan/ internal resources, when it was already under financial constraints. Further, operation of units without installation of FGD was in violation of the conditions of EC, which risked public health.

The Company stated that cost of FGD system was not included in the project cost as the decision for installation was not finalised at the time of sending initial/revised project cost proposal to GoM. The fact was that FGD was a mandatory requirement which was not included in project cost leading to non-receipt of 20 *per cent* equity contribution from the GoM.

Non-availing of fiscal benefits under Mega Power Policy

2.16.3 The Ministry of Power (MoP), GoI introduced (November 1995) Mega Power Project (MPP) policy whereby eligible projects of 1,000 MW or more were granted fiscal benefits like exemption from Custom Duty (CD) and exemption from Excise Duty (ED) for contracts awarded on International Competitive Bidding (ICB) basis. Three projects of the Company (Koradi, Chandrapur and Bhusawal) were granted MPP status in December 2009. In this connection, Audit observed as follows:

[53] The condition was insisted upon only for one unit keeping in consideration that Nagpur city was located only six kilometer from the project

Non-inclusion of essential works in EPC contract

2.16.3.1 The EPC contracts of Koradi project which were awarded through ICB route did not include essential works of supply/installation of raw water filtration plant, procurement of mandatory spares of Coal Mill reject handling system and installation of treatment plant for tertiary treated water reservoir. The Company subsequently awarded (January 2015/October 2015/ August 2016) contracts for above works through Local Competitive Bidding (LCB) at cost of ₹ 13.36 crore including ED of ₹ 1.18 crore. As the contracts were not awarded through ICB, the Company could not avail ED exemption of ₹ 1.18 crore.

The Company stated that the above orders were placed independently as and when needed. The bidding was done through LCB as the costs of the individual works involved were of lesser amount as compared to total project cost and was required lesser time to carry out ICB procedure. The reply was not tenable as all the essential works should have included in the EPC contract and invited through ICB considering fiscal benefits available for the project under MPP policy.

Delay in issue of Project Authority Certificate

2.16.3.2 The Company issued (January 2009) amended LoA for BTG package of Chandrapur project to Bharat Heavy Electricals Limited (BHEL) through ICB. Though, MPP status was not available, tender condition specified that in case the benefits for supplies made for MPP were extended by GoI, benefits of ED and CD should be passed to Company by the bidder. In absence of MPP status, the Company advised (September 2009) BHEL for procurement of material by paying ED and confirmed that same should be reimbursed as per terms and conditions of contract.

The GoI granted MPP status to the project on 16 December 2009. As per the provisions of the MPP policy, the Company was required to issue Project Authority Certificate (PAC) to the contractor to avail the benefits of ED exemption, which, *inter alia*, required details of contract agreement executed with the contractor. Audit observed that there was delay of more than three months in issue of PAC as the pre-requisite contract agreement was not executed with the contractor. As per terms of LoA, contract agreement was to be executed/finalised within 90 days from the date of issue of LoA (*i.e.* by April 2009). The Company belatedly issued PAC to the contractor on 30 March 2010 after execution of contract agreement on the same day. In absence of the PAC, the Company made reimbursement of ED to the extent of ₹ 3.89 crore for material supplied by the contractor after grant of MPP status. Thus, the Company incurred avoidable expenditure of ₹ 3.89 crore due to non-availing ED benefits.

The Company stated that BHEL had forwarded the contract agreement to the Company on 22 December 2009 which was executed on 30 March 2010, considering time required for revision in break-up of package price, changes in technical specifications *etc*. The fact remained that there was inordinate delay in execution of contract agreement which led to delay in issue of PAC and non-availing of ED benefits.

Non-recovery of custom duty

2.16.3.3 The BoP contract (supply) for Bhusawal project was awarded (November 2007) to Tata Power Limited (TPL) for total contract price of ₹ 873.38 crore. The contract agreement provided that in case the MPP status was granted to the project, maximum benefit of CD on supplies was ₹ 19.36 crore which was to be passed on the Company. It was observed that the contractor had refunded (May 2011) CD of ₹ 9.90 crore while an amount of ₹ 4.76 crore was retained from running bills. Thus, there was short remittance of CD benefit of ₹ 4.70 crore (₹ 19.36 crore less ₹ 14.66 crore) by the contractor, which was not recovered from their bills.

The Company stated that counter claim for the same had been made (March 2017) in arbitration proceedings instituted (October 2016) on demand of TPL which were in progress and amount would be recovered as per the decision of the same. The reply was not convincing in view of non-recovery of the same during currency of the contract.

Delay in issue of bills for supply of infirm power

2.16.4 As per the terms and condition of the PPA, actual fuel charges incurred by the Company on power supplied from the new units prior to their commissioning (infirm power) was to be recovered from MSEDCL. Audit, scrutiny revealed that out of total 60 months during which infirm power was generated in five projects,[54] bills for 32 months involving revenue of ₹ 643.43 crore were issued with delay[55] ranging between two to 230 days. Delays were attributed on time taken for rectification of discrepancies/errors in information sent by field offices, which was avoidable. Abnormal delays in issue of bills for infirm power resulted in loss of interest of ₹ 13.72 crore[56].

The Company stated that efforts would be made to minimise the delay in future.

Loss due to delay in filing tariff petitions

2.16.5 The MERC allowed carrying cost[57] to the generating companies in cases where the expenditure was accepted but recovery of costs was delayed/deferred by way of interest on admissible amounts. The carrying cost was allowed based on the financial principle that whenever the recovery of cost is deferred, the financing of the gap in cash flow is arranged by the Company from lenders/ promoters/accruals. Audit observed that the Company could not recover carrying cost of ₹ 143 crore due to delay in filing tariff petitions.

[54] Chandrapur (8 & 9), Koradi (8,9 & 10), Khaperkheda 5, Bhusawal (4 & 5) and Parli 8

[55] Considering period of 30 days from the end of month for preparation and issue of bills

[56] Worked out at the rate of 10 *per cent per annum*

[57] Carrying cost allowed on the admissible amounts is worked out considering Bank interest rate of the year in which petition is filed

The Company stated that generally approved costs as per the order for Annual Performance Review (APR) petition are considered as the base for final true-up petition. There was no deliberate delay in filing petition as the same was filed immediately after issue of order of APR of 2012-13 in July 2014. The reply was not tenable as the MERC had disallowed carrying cost due to delay in filing petition.

Foregoing of RoE without fulfilment of mandatory pre-conditions

2.16.6 National Tariff Policy provides for RoE on investments with the objective of generating a reasonable surplus of returns for the investor. The rate of RoE stipulated by Central Electricity Regulatory Commission (CERC) was to be adopted by the State Commissions. Financial viability/cost estimates of capacity addition projects of the Company were prepared considering return on investment/equity as per the CERC norms. The MERC regulations (2011/2015) provided for RoE of 15.50 *per cent* on equity for generating companies.

The GoM constituted (January 2015) a Committee[58] to study and suggest long term as well as immediate steps to bring down the tariff to sustainable level. The Committee suggested reduction in RoE which at the same time should ensure that financial viability and the credit rating of the Companies were not weakened. Accordingly, the BoD of the Company decided (January 2016) to provisionally claim RoE at reduced rate of 7.50 *per cent* for two years 2016-17 and 2017-18 and defer claim for balance RoE. In case, there was a loss, the Company would claim and bill the deferred "balance RoE" for an amount that would give a Profit After Tax (PAT) of ₹ 25 crore so as to maintain financial viability and the credit rating. The BoD directed that this policy was to be implemented on fulfilment of conditions by MSEDCL regarding forthwith submission of LC as per provisions of PPA and undertaking that at least current bills will be paid regularly on due dates.

Audit observed that the MSEDCL had neither submitted LC nor paid the current bills regularly. Despite non-fulfilment of mandatory conditions, the tariff petition was submitted (February 2016/July 2017) claiming reduced RoE at the rate of 7.50 *per cent* and conditional deferment of balance eight *per cent* RoE for 2016-17 and 2017-18. Based on submissions of the Company, MERC approved (August 2016/December 2017) RoE for 2016-17 and 2017-18 at the reduced rate of 7.50 *per cent.* However, the request of the Company for conditional deferment was not accepted by MERC. Thus, the Company had foregone revenue of ₹ 1,041.83 crore[59] in respect of new projects without fulfilment of mandatory pre-conditions for implementation of the policy, which weakened its financial position. The Company reported loss of ₹ 628 crore for the year 2016-17 mainly on account of reduction in revenue from sale of power to MSEDCL.

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[58] Comprising of Principal Secretary (Energy), GoM and CMDs of MSPGCL, MSEDCL and MSETCL

[59] Koradi : ₹ 321.43 crore, Chandrapur : ₹ 127.67 crore, Khaperkheda : ₹ 102.68 crore, Bhusawal : ₹ 194.83 crore, Parli (unit 8) : ₹ 32.98 crore, Parli (unit 6 and 7) : ₹ 136.41 crore and Paras (unit 3 and 4) : ₹ 125.83 crore

The Company stated that tariff petitions were submitted with bona-fide assumption that MSEDCL would reciprocate in positive way and fulfil pre-conditions. The reply was not convincing as submission of petitions on mere assumptions without fulfilment of the conditions laid down by the BoD was not correct. Also, the Committee itself had suggested that while reducing RoE, financial viability and credit rating should not be weakened, which was not ensured by the Company.

Financial impact of delayed project execution

2.17 Delayed project execution led to increase in the project cost mainly on account of IDC, loss of equity contribution from the GoM, disallowance of excess establishment expenditure and foregoing of additional RoE as discussed below:

Disallowance of interest expenses during construction

2.17.1 As stated in **para 2.11,** major increase in cost of ₹ 5,620 crore[60] (56 *per cent*) was on account of increase in IDC on loans which ultimately was borne by the Company and consumers. Out of this, IDC of ₹ 3,743.46 crore was incurred during the period of time overrun (*i.e.* between scheduled completion date and actual completion date). As per the tariff principles adopted by the MERC, where generating company could not establish that delay was entirely beyond their control, 50 *per cent* of IDC for the period of time overrun was disallowed. Accordingly, the MERC disallowed (September 2013/April 2015/ December 2017) IDC of ₹ 1,871.93 crore[61] (50 *per cent* of ₹ 3,743.86 crore) for delayed period in five projects, as Company could not establish that delay was beyond their control.

The Company stated that the MERC had allowed retention of 50 *per cent* LD thereby partly compensating disallowance of IDC. The Company may retain maximum LD of ₹ 1,352.90 crore[62] as against IDC disallowance of ₹ 1,871.93 crore in these five projects, thereby leading to atleast loss of ₹ 519.03 crore.

Loss of contribution from the State Government

2.17.2 As per the prevailing policy, the GoM contributed 20 *per cent* of the project cost by way of equity. The GoM had initially approved (March 2008/ October 2008/November 2008) cost of three projects (Chandrapur, Koradi and Parli) at ₹ 18,755 crore which was subsequently revised (September 2014/ November 2015) to ₹ 23,112.30 crore based on submissions of the Company considering anticipated Commercial Operation Date (COD). As the projects could not be completed within the anticipated COD, there was further cost

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[60] Bhusawal: ₹ 1,159 crore, Chandrapur: ₹ 1,459 crore, Khaperkheda: ₹ 520 crore, Koradi: ₹ 1,947 crore and Parli: ₹ 535 crore

[61] Khaperkheda: ₹ 4.60 crore, Bhusawal: ₹ 302.77 crore, Chandrapur: ₹ 652.92 crore, Koradi: ₹ 672.76 crore and Parli: ₹ 238.88 crore

[62] 50 *per cent* of maximum LD of ₹ 2,705.81 crore in five projects, which can be recovered as per terms and conditions of contract

increase of ₹ 1,177.70 crore[63] (from anticipated COD to actual COD) in three projects (total estimated cost ₹ 24,290 crore), which was given in principle approval (May 2017) by the GoM without granting 20 *per cent* equity contribution for the same. As a result, the Company lost funds of ₹ 235.54 crore from the GoM (20 *per cent* of ₹ 1,177.70 crore), which was borne through loans/internal resources, when the Company was already under financial constraints.

The Company stated that GoM did not grant additional equity for increased project cost due to delayed project execution.

Loss due to disallowance of overhead cost

2.17.3 As per prevailing policy, the MERC allowed overhead cost (establishment expenses) incurred during the construction of a project to the extent of five *per cent* of Hard Cost[64], in line with generally accepted industry practice. For overhead cost exceeding five *per cent,* only 50 *per cent* of the cost in excess of five *per cent* was additionally allowed. The Company incurred expenditure of ₹ 96.25 crore on overheads (establishment expenditure) for the Parli project. The MERC observed (December 2017) that the overheads up to COD were 6.55 *per cent* of the Hard Cost (₹ 1,322.20 crore), which was higher than the industry norms by 1.55 *per cent*[65], mainly due to delay in the completion of project. Accordingly, the MERC allowed overhead cost of ₹ 76.33 crore which was 5.77 *per cent*[66] of the approved Hard Cost. Thus, there was excess expenditure of ₹ 19.92 crore on overheads (establishment expenditure), which was disallowed by the MERC.

Loss of additional return on equity through tariff

2.17.4 As per MERC (MYT) regulations, 2011, additional revenue by way of Return on Equity (RoE) of 0.50 *per cent* (above normative 15.50 *per cent)* was allowed if projects are completed within timelines specified in the regulations. The additional RoE was, however, not admissible if projects were not completed within specified timeline for any reasons whatsoever. As all the five projects were delayed, the Company lost the opportunity to earn additional RoE to the extent of ₹ 660.21 crore[67].

The Company accepted that it failed to avail the benefit despite trying its level best mainly on account of poor performance of EPC contractors.

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[63] Chandrapur: ₹ 175.59 crore, Koradi: ₹ 791.41 crore and Parli: ₹ 210.70 crore

[64] Hard cost was worked out by MERC excluding IDC and expenditure on merry-go-round and Railway siding, unloading equipment at jetty, and rolling stock, locomotive, and Transmission Line till the tie point

[65] Overhead cost in respect of other four projects were within industry norms and hence were fully allowed to the Company

[66] Five *per cent* plus 0.77 *per cent* (50 *per cent* of excess overhead cost of 1.55 *per cent*)

[67] Koradi : ₹ 286.79 crore, Chandrapur : ₹ 106.66 crore, Khaperkheda : ₹ 83.13 crore, Bhusawal: ₹ 147.50 crore and Parli : ₹ 36.13 crore

Monitoring

2.18 The capacity addition projects were monitored at various levels of the Company. In this connection, Audit observed the following:

- The Company had not implemented Information Technology (IT) based monitoring system, which could have enabled the Management to receive all the project related information in real time and highlight critical issues for timely and appropriate action. The Company stated that a Project Management and Control module for new projects was developed in SAP system for monitoring as per project schedule of EPC vendors and capitalisation of cost. The reply was not convincing as the present system was utilised while releasing payments to the contractors and it was not a real time monitoring system.

- The monthly progress reports and Project Review Meetings, addressing the critical issues by concerned department did not mention action taken by the concerned departments.

Operational performance of new units

2.19 Performance of generating units is assessed on the basis of norms fixed by MERC for parameters like Plant Availability (PA), Plant Load Factor (PLF), Auxiliary Consumption (AC), Station Heat Rate (SHR) and Secondary Fuel Oil Consumption (SFOC). Expenditure incurred by the Company in excess of approved norms cannot be recovered through tariff and hence such disallowances are loss to the Company. During 2012-13 to 2016-17, performance of seven projects consisting of 13 units completed (2007-17) by the Company under its capacity addition programme was below the norms approved by MERC[68] as given in table below:

Sl. No.	Name of unit	No. of years[69] during which plant was in operation	No. of years during which performance was below norms					
			PA	PLF	AC	SHR	SFOC	O&M expenses
1	Khaperkheda 5	5	2	5	3	4	1	1
2	Koradi 8	2	2	2	2	2	1	1
3	Koradi 9 &10	1	1	1	1	1	1	0
4	Chandrapur 8 & 9	1	1	1	1	0	1	0
5	Paras 3	5	4	4	5	2	1	2
6	Paras 4	5	4	4	5	2	1	2
7	Parli 6	5	2	4	3	1	1	1
8	Parli 7	5	2	4	3	1	1	1
9	Parli 8	1	1	1	1	1	1	0
10	Bhusawal 4 & 5	3	1	2	3	0	0	1

(Source: Information furnished by the Company)

It could be seen from the table above that operational efficiency of the new units was below the normative performance parameters during most of the years under review which led to low capacity utilisation and non-recovery of fixed costs, excess Auxiliary Energy Consumption (AEC), excess consumption of coal and oil and excess O&M expenses. Analysis of performance parameters

[68] Performance results/losses for 2015-16 and 2016-17 furnished by the Management were provisional based on prevailing MERC norms. Final truing up of the same was pending

[69] Including year of commissioning

for 13 units indicating approved norms, actual norms, extent of deviation along with reasons thereof and resultant losses are discussed below:

Non-recovery of fixed costs due to lower plant availability

2.19.1 Plant Availability is the *ratio* of actual hours operated to maximum possible hours available during a certain period. As per MERC regulations, full Annual Fixed Charges (AFC) incurred by the Company could be recovered only if actual availability was equal to or higher than the approved target. In case of shortfall in PA during any year, recovery of AFC was proportionately reduced and hence the Company had to bear that loss. During 2012-17, PA of 13 units varied between 4.44 to 93.59 *per cent* as against approved norms of 42.80 to 85 *per cent*. PA of two units[70] was below the approved norms during four years while PA of remaining 11 units was below norms during one to two years. Due to lower PA, the Company suffered loss of ₹ 1,404.69 crore[71] towards non-recovery of AFC during the period from 2012-17.

Low capacity utilisation of new units was due to forced outages[72] during 2012-17 which led to loss of generation of 20,391[73] MUs. The forced outages were on account of O&M issues like BTL (3,880 MUs), fan problems (2,003 MUs), CHP problems (2,478 MUs), Electrical problems (842 MUs), Coal Cycle problem (1,368 MUs) *etc.,* which could have been minimised with better O&M of the plants. Non rectification of recurring system problems and premature commissioning of units also contributed to low capacity utilisation as discussed previously in **para 2.14.1, 2.14.2 and 2.14.3.** Other factors like shortage/poor quality of coal, shortage of water, stabilisation period and annual overhauls were also attributed by the Company for lower PA. The Company in its reply stated that various committees such as BTL committee, Coal Mill Improvement committee, Efficiency/Heat Rate Improvement committee, Electrical Protection committee, CHP Improvement committee *etc.* have been formed to improve availability/reliability of units and reduction of forced outages.

Plant Load Factor

2.19.2 Plant Load Factor (PLF) is the *ratio* of the actual generation achieved to the maximum possible generation by installed capacity. As per MERC regulations, thermal Generating Stations were eligible for incentive in case PLF exceeded approved norms. As against MERC norms of 42.18 to 85 *per cent* for 13 units during 2012-13 to 2016-17, actual PLF varied between 2.42 to 88.28 *per cent*.

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[70] Paras unit 3 and 4

[71] As per information furnished by the Company

[72] Outages refer to the period for which thermal plant remains closed for attending planned/ forced maintenance

[73] As per information provided by the Company

Audit observed that PLF of Khaperkheda was lower than norms in all five years while that of Parli (unit 6 and 7) and Paras (unit 3 and 4) was below than norms in four years. In respect of remaining eight units, lower PLF was observed during one or two years. During review period, five units achieved PLF exceeding approved norms during 2012-13 and 2015-16 and hence earned incentive of ₹ 8.40 crore. Reasons for lower PLF were attributable to same factors which contributed to lower PA.

Auxiliary Energy Consumption

2.19.3 Energy consumed by power stations themselves for running their equipment and common services is called Auxiliary Consumption (AC). As against the approved norms of 5.25 to 12.15 *per cent* during 2012-13 to 2016-17, actual AC of 13 units varied between 5.87 and 18.03 *per cent*. In fact, AC of Paras (unit 3 and 4) was above the norms during all the five years while that of 10 units was above norms during one to three years. As a result, the Company had to bear loss of ₹ 113.72 crore[74]. The Company attributed higher AC on higher number of trippings during stabilisation period and partial loading of units (Koradi and Chandrapur), water shortage and coal shortage (Parli), poor coal quality/lower PLF/system problems and overhauls (Khaperkheda, Paras and Bhusawal).

In this regard, audit further observed that:

- The guaranteed AC as per the Original Equipment Manufacturer (OEM) of two projects[75] was 9.98 *per cent*, which was beyond prescribed norms of 8.50 *per cent*. The Company requested MERC for revising the norms for these projects as per OEM parameters, which was rejected by MERC on the grounds that norms were specified after considering the equipment design parameters and the operating conditions as per the industry practice, as well as the CERC dispensations.

- As per MERC tariff Regulations, 2015, normative AC for units of 500 MW and above commissioned prior to 1 April, 2016 was six *per cent* while those commissioned after 1 April, 2016 was 5.25 *per cent*. For Chandrapur project (unit 8 and 9) commissioned in June/November 2016, the Company proposed norm of six *per cent* on the grounds that specified normative AC of 5.25 *per cent* was unachievable as the guaranteed AC was higher than the specified norm. The MERC, however, rejected revision of AC on design considerations and approved AC at 5.25 *per cent* stating that inordinate delay in the COD of the units has resulted in the applicable norm being more stringent than for those units which achieved COD in earlier periods.

As such, the Company is inherently saddled with higher AC in respect of these three projects, which will contribute to loss during life of these projects.

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[74] As per information furnished by the Company

[75] Parli (Unit 6 and 7) and Paras (unit 3 and 4)

Excess consumption of coal due to higher SHR

2.19.4 Gross SHR is an important parameter to assess efficiency of a TPS which indicates amount of chemical energy required to produce one unit of electrical energy *i.e.* heat energy input in kilo calorie (kcal) required to generate one unit of electrical energy at generator terminals. Lower is the SHR, lower will be coal requirement for generation of one unit of power. The SHR norms fixed by MERC for 13 units ranged between 2,260.06 Kcal/Kwh to 2,563.21 Kcal/kwh during 2012-13 to 2016-17.

Audit observed that SHR was above the norms at Paras (unit 3 and 4) during three years, Parli (unit 6 and 7) during two years and Khaperkheda (unit 5), and Chandrapur (unit 9 and 10) during one year. Further, SHR of supercritical[76] units of Koradi were above norms during all the four years of operation (unit 8: two years, unit 9 and 10: one year each). Due to higher SHR, there was excess consumption of coal (3.70 lakh MT) valuing ₹ 127.77 crore[77].

The higher SHR was attributed to poor coal quality, partial loading of units, low PLF of units on account of O&M issues like BTL, CHP problems, ID fan problems *etc*. The fact remained that the Company could not maintain SHR within the norms prescribed by the MERC.

Excess consumption of oil

2.19.5 Thermal generating stations use fuel oil (Heavy Fuel Oil and Light Diesel Oil) as secondary fuel for start-up and stabilisation of the units. The norms approved/fixed by MERC during 2012-17 ranged between 0.50 to 6.59 ml/unit. Against this, oil consumption varied between 0.33 to 76.83 ml/unit. During 2012-17, excess oil of 22,089 kilo litre was consumed in 11 units worth ₹ 71.19 crore[77]. The Company attributed the same on stabilisation period, fly ash evacuation system problem, poor coal quality/wet coal, BTL *etc*. The fact remained that the Company could not ensure oil consumption within the norms prescribed by the MERC.

Operation and maintenance expenses

2.19.6 The O&M expenses of a generating station includes expenses on manpower, repairs, spares, consumables, insurance and overheads. The MERC has fixed/approved normative O&M expense for the 13 units ranging between ₹ 44.64 crore to ₹ 147.66 crore during 2012-17. Audit observed that O&M expenses of seven units exceeded norms by ₹ 6.81 crore to ₹ 41.27 crore[77] to the extent of ₹ 146.63 crore.

The Company attributed deviation in O&M expenses on factors like revisions of pay, gratuity and leave encashment of manpower, increase in repairs and maintenance expenses *etc.* The Company should have taken necessary steps to ensure that O&M expenses are within norms prescribed by the MERC.

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[76] Supercritical technology implies use of steam pressure above 240 kg/cm^2 with various combinations of temperature and pressure which is beyond the critical point of water/steam

[77] As per information furnished by the Company

Backing down of generating units due to higher cost of generation

2.19.7 The Electricity Act, 2003 provided for procurement of power from competitive sources. Maharashtra State Load Dispatch Centre (MSLDC) was the nodal authority of the State, which was responsible for optimum scheduling and dispatch of electricity within the State from the generators, in accordance with Merit Order Dispatch (MOD) principles. Accordingly, the MSLDC prepared a MOD stack ranking the generating units on the basis of their cost of generation (energy charges) and units having least cost were scheduled/ dispatched first. In case, power was not required, MSLDC directed the generating units having higher cost to back down. Thus, availability of the generation capacity was as important as the ability of such generation capacity to get dispatched considering surplus power scenario in the State.

Energy charges are approved by the MERC considering approved generation, performance parameters, Gross Calorific Value (GCV) of fuels and landed price of fuels. Thus, operational inefficiencies contributed to higher cost of generation. Cost of generation as mentioned in the DPR *vis-a-vis* actual cost in five projects was as given below:

Sl. No.	Name of project	Energy charges as per DPR (₹ per unit)	Actual energy charges as per MERC order[78] (₹ per unit)	Increase (₹ per unit)	Increase in percentage
1	Bhusawal	1.53	2.991	1.461	95
2	Parli	1.14	2.892	1.752	154
3	Khaperkheda	1.36	2.673	1.313	97
4	Koradi	0.98	2.504	1.524	155
5	Chandrapur	1.69	2.198	0.508	30

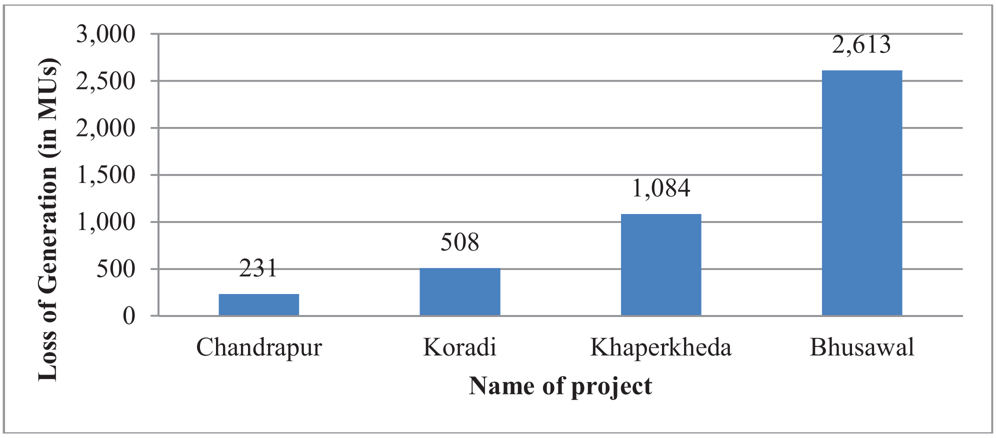
Thus, the actual cost of generation was significantly higher than that projected in DPRs (ranging between 30 to 155 *per cent*) and costliest power was from Bhusawal project.

There was rising trend of backing down of costlier power from generating units of the Company during the review period. Loss of generation on account of backing down of units increased from 143 Million Units (MUs) in 2012-13 to 9,311 MUs in 2016-17 (total loss: 17,313 MUs[79]), ultimately leading to foregoing of revenue (energy charges) by the Company. The Company, however, received fixed charges from MSEDCL even during the period of backing down and burden thereof was borne by consumers of the State. In respect of four new projects which were in operation for a period of one to five

[78] Average of Energy charges approved by MERC for the years during which projects were in operation during 2012-17

[79] Old units : 11,399 MUs and new units : 5,914 MUs

years during 2012-17, there was backing down of 4,436 MUs since their commissioning as shown below:



It could be seen that maximum backing down was at Bhusawal project (2,613 MUs) which had the highest cost of generation among the new projects. The Company was required to take efforts for achievement of normative performance parameters for reducing cost of generation to be competitive *vis-a-vis* other power generators in the State so as to minimise backing down of its generating units.

Environmental compliances

2.20 The Company has statutory obligation to comply with conditions of Environment Clearance (EC) prescribed by MoEFCC, GoI and provisions of various Acts pertaining to environment compliances as it is categorised under major polluting industry, which is monitored by MPCB. Audit scrutiny revealed non-compliance with conditions of EC regarding installation of FGD and ozonisation plant and environmental norms related to fly ash utilisation and Suspended Particulate Matter and Sulphor Dioxide as discussed below:

Non-installation of ozonisation plant

2.20.1 The MPCB while granting (January 2010) Condition to Establish (CTE) for Koradi project, had requested for adoption of ozonisation technology for cooling water treatment. Disregarding the same, the Company awarded (July 2010) BoP contract with provision for installation of Chlorination Plant (CP). Subsequently, the Company submitted (December 2010) another proposal to MPCB for setting up CP, which was rejected (February 2011) with directions to install ozonisation plant as per conditions of the CTE. The planning section of the Company citing MPCB directives initiated (March 2011/August 2012) proposals for installation of ozonisation plant at Koradi at estimated cost of ₹ 16.75 crore[80] (excluding civil works) and deletion of CP from the scope of BoP contract. The CMD however decided (November 2011/January 2013) to go ahead with the installation of CP.

[80] For plant capacity of 49.5 Kg/hr

The Company incurred expenditure to the extent of ₹ 1.38 crore[81] on CP and the work was in progress till date (February 2018). Meanwhile, the MPCB while granting extension to CTO (December 2016) directed Company for adoption of ozonisation system. Accordingly, the Company initiated (February 2017) fresh proposal for installation of ozonisation plant at estimated cost of ₹ 46.90 crore[82] (excluding civil works), which was in process (February 2018). Thus, operation of units without installation of prescribed ozonisation plant for water treatment was in violation of the MPCB directives, which exposed employees/public to health hazards related to chlorination treatment[83]. Further, this would result in unproductive expenditure of ₹ 1.38 crore on CP and avoidable cost escalation on installation of mandatory ozonisation plant.

The Company stated that it was decided to go ahead with chlorination as per the scope of work already specified in the tender documents in accordance with recommendation of a consultant. Further, the present proposal for adoption of ozonisation at Koradi project was started to avoid further complications for getting CTO from MPCB in future.

The reply was not tenable as despite the directives of MPCB for adoption of ozonisation in the initial stages itself, it was not adhered to.

Non-achievement of fly ash utilisation targets

2.20.2 MoEFCC, GoI issued (November 2009) notification specifying that each thermal power generating station should achieve 100 *per cent* utilisation of total ash generated by the end of five years (November 2014).

Audit observed that the Company did not achieve fly ash utilisation targets in respect of all the 13 units. Actual utilisation of fly ash in 12 units was ranging between three *per cent (*Chandrapur) and 78 *per cent* (Parli) during 2012-13 to 2016-17. In respect of three units of Koradi project commissioned during December 2015 to January 2017, there was no utilisation of fly ash. The low utilisation was attributed to poor response from the prospective users. In this connection, it was observed that silo system for utilisation of fly ash has not been completed at Koradi project till date (February 2018) while it was completed (March 2015) at Khaperkheda after a delay of 35 months from the date of commissioning (16 April 2012). Non-utilisation of fly ash not only resulted in loss of revenue but also led to expenditure of ₹ 50.05 crore[84] on transportation/flushing of fly ash to ash pond.

The Company stated a subsidiary company has been formed which was taking various steps for increasing ash utilisation at all TPS and achievement of targets set by MoEFCC.

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[81] Excluding cost of building which was not furnished by the Company

[82] Estimated cost of proposed plant having capacity of 90 Kg/hr

[83] Cooling water treatment was being done through manual dosing of chlorine

[84] As per information furnished by the Company

Suspended Particulate Matter and sulphur dioxide

2.20.3 Suspended Particulate Matter (SPM) in flue gas is a pollutant when its concentration in a given volume of atmosphere is high. Electrostatic Precipitator (ESP) is used to reduce SPM concentration in flue gases. Control of SPM level depends on the effective and efficient functioning of ESP of the thermal plant.

As per MoEF norms, permissible level of SPM for 12 units[85] was 50-100 mg/Nm^3. It was observed that the SPM level only at three units of Koradi project was within norms. In respect of three units (Parli 6 and 7 and Chandrapur 9), SPM level exceeded norms in every month during which unit was in operation, ranging between 3.5 to 113 mg/Nm$^{3.}$ ESPs installed at Parli project were designed to achieve SPM level of 70 which was higher than the norms of 50. In respect of Khaperkheda 5, though designed ESP matched with norms, SPM level exceeded norms in 40 months out of 59 months during which unit was in operation (68 *per cent*) ranging between 01-41 mg/Nm^3. This indicated that the ESPs were not functioning properly. Further, during 2012-13 to 2016-17, Sulphur Dioxide (SO_2) was higher than the norms in seven units for 72 months ranging between 03 to 1,442 mg/Nm^3.

The Company attributed deviations to change in SPM limit after construction of project (Parli), receipt of poor coal quality, stabilisation period *etc*. It was further stated that efforts are being taken to improve ESP performance to lower SPM level within the prescribed limits. As regards, controlling Sulphur emissions, action plan was initiated for installation of FGD system in all non-compliant TPS.

Forfeiture of bank guarantees

2.20.4 The MPCB while granting CTO to various units obtained Bank Guarantees (BG) from the Company for ensuring compliance with prescribed targets/norms of various environmental parameters and installation of pollution control systems. Audit observed that the MPCB forfeited BGs (February to September 2015) to the extent of ₹ 72.50 lakh in respect of five units as the Company did not ensure emissions within prescribed norms and installation of pollution control systems.

The Company stated that necessary actions were being taken to avoid forfeiture of BGs.

Conclusion

The Company had planned/taken up 13 thermal power projects of 13,900 Mega Watts (MW) for completion/implementation during 2007-17 as against the capacity addition requirement of 7,891 to 9,664 MW during the same period. The Company completed seven projects having capacity of 5,730 MW (2007-17) while remaining six projects of 8,170 MW on which the Company had incurred ₹ 112.09 crore towards various pre-order activities, were proposed

[85] Data for Parli unit 8 was not furnished

either for cancellation or deferred/pending decision of the Board of Directors (BoD) citing surplus power scenario in the State.

The Company completed five thermal power projects (Koradi, Parli, Chandrapur, Bhusawal and Khaperkheda) involving 4,730 MW during the period 2012-17. All the five projects were constructed by awarding two comprehensive Engineering, Procurement & Construction (EPC) contracts comprising Boiler, Turbine and Generator (BTG) package and Balance of Plant (BoP) package.

Audit observed various deficiencies in pre-implementation planning of completed projects like imprudent selection of site, non-provision for construction of railway siding in Detailed Project Reports (DPR) and lack of adequate coal arrangements for operation of units at optimum level.

There were significant time overruns in completing construction of all the five projects. According to terms and conditions of contract, successful completion of trial run of the units was to be considered as completion date of the contract for the project. Delay in completion of trial run of the units ranged between 20 and 49 months from the scheduled completion date. Delayed project execution was attributed to poor performance and financial crisis of EPC contractors. None of the major milestones/activities were completed within the time period stipulated in the contracts.

There was lack of coordination between the BTG and BoP works which affected interrelated works. Further, there was avoidable delay due to factors within management control like delay in awarding BoP contracts; delay in completion of railway siding due to defective DPR and delay in commencement of commercial operation of units in absence of timely obtaining of requisite statutory permissions and Environmental Clearance(EC)/non-compliance with environmental conditions.

As against the estimated cost of ₹ 25,048 crore for five projects, the actual cost on their completion was ₹ 35,012 crore leading to increase in cost by ₹ 9,964 crore. Major increase in cost (56 *per cent*) of ₹ 5,620 crore was on account of increase in IDC on loans. Of which, ₹ 1,871.93 crore was disallowed by Maharashtra Electricity Regulatory Commission (MERC) on the ground that delay in project execution was not entirely beyond the control of the Company. Delayed project execution also led to loss of equity contribution from the Government of Maharashtra (GoM), disallowance of excess establishment expenditure and foregoing of additional Return on Equity (RoE).

Audit noticed instances of deficiencies in project execution like premature commissioning of units and issues related to quality of material/workmanship of EPC contractors. This had contributed to low capacity utilisation of new units and consequent irrecoverable loss of revenue on account of disallowance of fixed cost and loss of generation. Other issues like financing of a non-viable water supply scheme, non-adjustment of interest free advance against water charges, blocking of funds and extra expenditure while providing ash disposal arrangements were also observed.

There was abnormal delay in recovery of Liquidated Damages (LD), non-recovery of labour cess in contravention of the statutory provisions and non-recovery of interest free mobilisation advances as per CVC guidelines.

Financial management of the projects was not effective. Various shortcomings/deficiencies were observed like failure to obtain prescribed payment security mechanisms from Maharashtra State Electricity Distribution Company Limited (MSEDCL) which facilitated payment defaults and accumulation of huge arrears, payment of penal interest on loan which was incorrectly recovered from the consumers through tariff, foregoing of equity contribution from GoM due to non-inclusion of cost of mandatory work in project cost delays in filing petitions with MERC for approval of tariff/capital costs led to delayed realisation of revenue/returns and unjustified foregoing of RoE which compromised financial position of the Company.

The monitoring system was ineffective in minimising delays in the project and IT based monitoring system was not implemented.

Operational efficiency of new units was below the norms prescribed by MERC for Plant Availability (PA), Plant Load Factor, Auxiliary Energy Consumption (AEC), Station Heat Rate, consumption of oil and Operation & Maintenance (O&M) expenses. Non-achievement/adherence to operational norms fixed by MERC resulted in non-recovery of fixed costs, excess AEC, excess consumption of coal and oil and excess expenses on O&M of plants. Low capacity utilisation of new units due to forced outages led to loss of generation of 20,391 Million Units (MUs) during 2012-17.

Availability of the generation capacity was as important as to get it dispatched in the Merit Order considering surplus power available in the State. The units having least cost were scheduled/dispatched first and in case power was not required, generating units having higher cost were backed down. Audit observed loss of generation on account of backing down of units of the Company had increased from 143 MUs in 2012-13 to 9,311 MUs in 2016-17 (total loss: 17,313 MUs), leading to loss of revenue (energy charges) to the Company besides burdening the consumers with fixed charges. In respect of new projects, cost of generation was highest at Bhusawal and hence suffered maximum backing down of generation.

There were instances of non-compliance with conditions of EC regarding installation of Flue Gas Desulphurisation (FGD) and ozonisation plant at Koradi project. None of the new projects achieved target of 100 *per cent* fly ash utilisation.

Recommendations

- ***The Company may ensure that thermal capacity addition plans are formulated after comprehensive assessment of power scenario in the State.***

- ***All statutory permissions need to be obtained timely and adherence to terms and conditions of environmental clearance/consent granted for the projects need to be ensured.***

- ***LDs of all completed projects may be finalised and recovered at the earliest. All statutory duties/cess be recovered and remitted to the GoM in accordance with statutory requirement.***

- ***The Company may obtain payment security mechanisms from the MSEDCL as prescribed in the PPA and ensure timely filing of tariff petitions to MERC.***

- ***The Company may ensure rectification of recurring effects/shortcomings identified in commercial operation. O&M practices at new units may be strengthened to ensure achievement of performance norms prescribed by MERC.***

Chapter III

Compliance Audit Paragraphs

Chapter-III

Compliance Audit Paragraphs

Important Audit findings emerging from test check of transactions of the State Government Companies and Statutory Corporations are included in this Chapter.

Government companies

City and Industrial Development Corporation of Maharashtra Limited

3.1 *Preparedness of City and Industrial Development Corporation of Maharashtra Limited (CIDCO) for Navi Mumbai International Airport Project*

Introduction

3.1.1 The Navi Mumbai International Airport (NMIA) was conceptualised due to constraints in expansion of the existing Chhatrapati Shivaji International Airport (CSIA) at Mumbai which could handle only 40 Million Passengers Per Annum (MPPA)[1]. City and Industrial Development Corporation of Maharashtra Limited (CIDCO) through Government of Maharashtra (GoM) submitted (September 2000) a revised proposal for development of international airport in Navi Mumbai with two runways after rejection (June 2000) of its earlier proposal with single runway by Ministry of Civil Aviation (MoCA), Government of India (GoI). The MoCA evaluated the revised proposal and concluded (December 2000) that the Navi Mumbai site is operationally suitable for development of second international airport subject to removal of obstructions. CIDCO submitted (September 2001) techno-economic feasibility report for airport at Navi Mumbai. Thereafter, simulation study (August 2006) was conducted through International Civil Aviation Organisation (ICAO) for simultaneous operation of two airports.

The GoI approved (July 2007) setting up a Greenfield Airport through Public Private Partnership (PPP) at Navi Mumbai in accordance with the proposal/ pre-feasibility report submitted (February 2007) by GoM. One of the conditions in the GoI's approval was that MoCA would set up a Committee comprising officials of the State Government, MoCA, CIDCO and Airport Authority of India (AAI) which would oversee the structure and implementation of project including funding proposal, preparation of tender documents, bidding and selection of strategic partner.

CIDCO approved (August 2007) the site for NMIA which was located at Ulwe, Navi Mumbai at a distance of 35 kilometres from the existing airport at Mumbai. The total area of airport project was 2,268 Hectares (Ha) out of which,

[1] Total passengers handled by existing CSIA reached 41.70 MPPA in 2015-16 and 45.20 MPPA in 2016-17

the operational/core airport area was 1,160 Ha. The airport with annual passenger handling capacity of 60 MPPA with two parallel runways was to be developed in four phases at an estimated cost of ₹ 9,970 crore (August 2007). The Phase-I was to be taken up with a single runway during 2008-12 at an estimated cost of ₹ 4,200 crore to cater to passenger load of 10 MPPA and was expected to be operational by 2012-13. The second phase with another runway was to be developed during the period 2015-20. The estimated cost of Phase-I had increased to ₹ 8,801 crore in 2016 as compared to the estimated cost of ₹ 4,424 crore in 2008 due to delay in completion of the various activities by CIDCO as discussed in subsequent paras.

According to GoM Resolution (July 2008) the NMIA project was to be developed by CIDCO through PPP on Design, Build, Finance, Operate and Transfer. Based on the global bidding process for selection of concessionaire, the Letter of Award for the concession for NMIA was issued (October 2017) to a concessionaire[2] which quoted the highest premium of 12.60 *per cent* of gross revenue share annually.

The Concession Agreement had been entered (January 2018) into between CIDCO and the Special Purpose Vehicle (SPV) Company 'Navi Mumbai International Airport Private Limited' formed by the concessionaire wherein CIDCO equity would be 26 *per cent* with equity contribution capped at ₹ 430 crore and balance 74 *per cent* to be contributed by the concessionaire.

Scope and Audit objectives

3.1.2 The audit of the preparedness of CIDCO was taken from July 2007 *i.e.* stage of approval by GoI and till December 2017. This included the planning, obtaining various approvals, land acquisition for the project, pre-development works[3], development works at Rehabilitation & Resettlement (R&R) sites and rehabilitation of the Project Affected Persons (PAPs) besides the selection of concessionaire for facilitating the completion of airport project.

The audit findings were issued to CIDCO and Government in June 2017. The audit findings have been finalised considering the reply (July 2017) of CIDCO. The reply of the Government was awaited (February 2018).

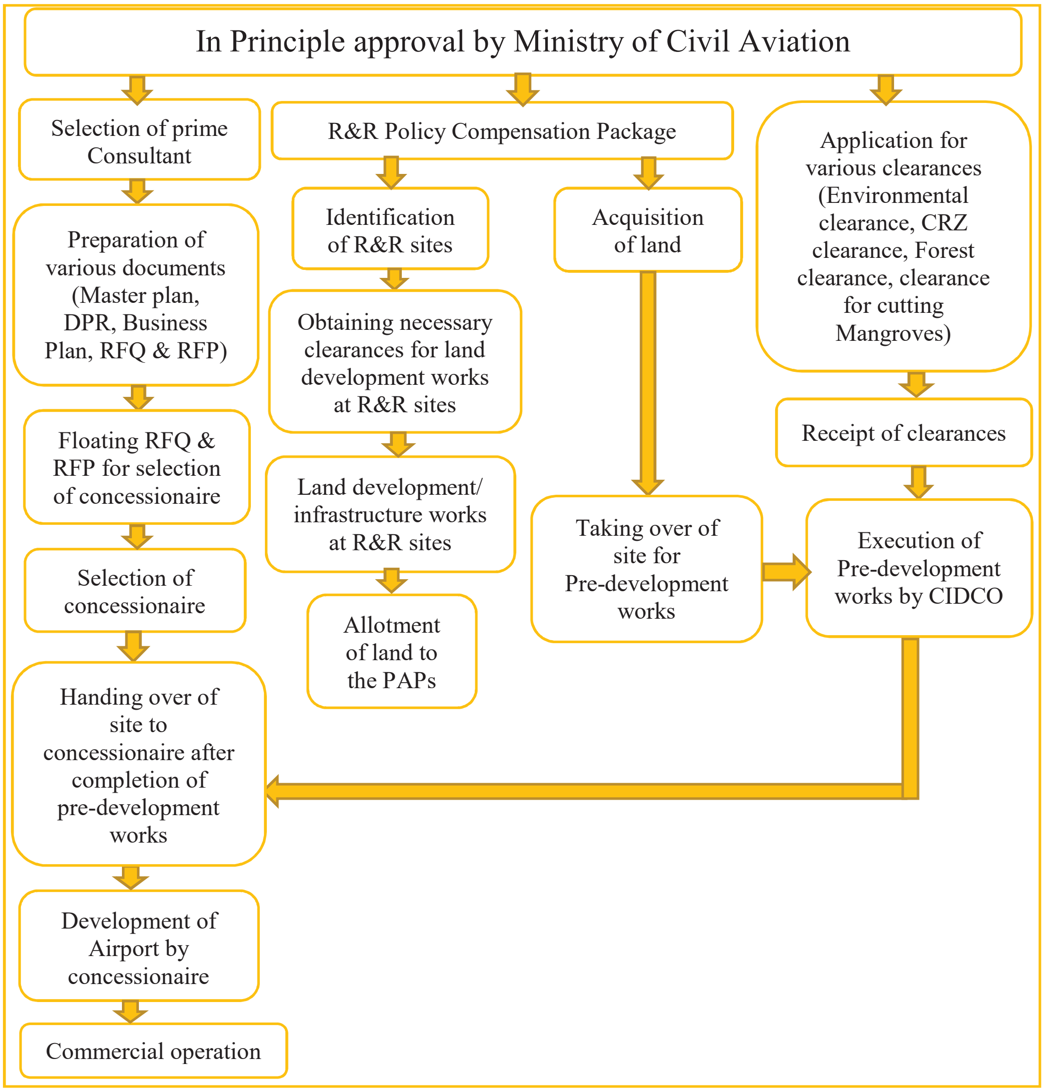
[2] M/s. Mumbai International Airport Private Limited

[3] Cutting of Ulwe hill, land filling and leveling, diversion of Ulwe river, rerouting of Extra High Voltage Transmission (EHVT) lines and construction of bridges for laying of cables for rerouting EHVT lines

Audit findings

Planning

3.1.3 The flow chart of the various activities involved in the NMIA project is shown below:



After receipt of in-principle approval for airport at Navi Mumbai site, the role of CIDCO in the project comprised:

- acquisition of required land for the project,
- obtaining various clearances required for the project,
- development of Rehabilitation and Resettlement (R&R) sites,
- R&R of PAPs,
- carrying out pre-development works at the project site,
- appointment of consultant for preparation of project documents, and
- selection of the concessionaire for development of the airport.

According to the pre-feasibility report prepared by CIDCO and submitted (January 2007) to MoCA, GoI, the actual construction of airport was to commence in October 2008 and Phase-I was to be completed by July 2012 with commencement of operations from November 2012. Subsequent, to 'in-principle approval' (July 2007), CIDCO revised (August 2007) timeline for construction activities to be commenced in October 2009. Further, as per the Business Plan for the project (October 2015), the Phase-I of construction of airport was to be taken up during 2016-18.

It was observed that in the pre-feasibility report submitted (February 2007) to MoCA seeking approval for the project, there was no reference to key activities such as land acquisition, pre-development, obtaining various clearances for the project and rehabilitation of PAPs. Further CIDCO while obtaining (2010) the environmental clearance for Navi Mumbai site stated that the Navi Mumbai site was selected considering availability of land, least expenditure for site development, aeronautical considerations and least displacement of population. Considering the peculiarities of the project site, it was essential to formulate a realistic and detailed comprehensive plan for major activities such as obtaining various clearances for the project, land acquisition, R&R for PAPs and pre-development works at the sites to be completed by CIDCO in order to execute the activities in a time bound manner. Even after a period of more than 10 years from approval for the project, CIDCO could not complete land acquisition, obtain clearances and complete the pre-development works and R&R of the PAPs. Thus, in the absence of time schedule or milestones for completion of each of these activities, the progress could not be evaluated to ensure completion of the project in a time bound manner.

CIDCO stated (July 2017) that the project was delayed due to delay in obtaining various approvals from the Government agencies and the timelines of land acquisition and R&R were beyond the control of CIDCO due to resistance from PAPs. The reply affirms that CIDCO had not factored in the most important issues affecting pre-development activities and had not worked out a realistic project implementation schedule. These issues are discussed below:

Acquisition of land for the project

3.1.4 Acquisition of land is a key factor for timely completion of any infrastructure project. Therefore, proper assessment of the total land required, conducting a detailed survey of the land to be acquired, identification of persons affected by the project and finalisation of compensation package are critical for timely land acquisition.

The total land required for the entire project was 2,268 Ha of which land required for operational area was 1,160 Ha. Out of the total land required for the project, CIDCO had to acquire 855.79 Ha of land before commencement of the project.

The details of 855.79 Ha of land to be acquired for the project from the private parties/Government Agencies and the actual possession of land as at February 2018 was as given below:

(In Hectare)

From whom to be acquired	Total land to be acquired			Actual land acquired/possessed			Balance land to be acquired/possessed		
	Core area	Non-core area	Total area to be acquired	Core area	Non-core area	Total land in possessed	Core area	Non-core area	Balance land to be acquired/ possessed
Private	307.87	392.00	699.87	239.299	319.024	558.323	68.571	72.976	141.547
Government Agencies	149.54	6.38	155.92	132.940	0	132.940	16.600	6.380	22.980
Total	**457.41**	**398.38**	**855.79**	**372.239**	**319.024**	**691.263**	**85.171**	**79.356**	**164.527**

(Source: Information furnished by CIDCO)

As evident from the table above, out of the total 855.79 Ha of land to be acquired by CIDCO for the project from private/Government agencies, only 691.263 Ha had been acquired/possessed (February 2018). 164.527 Ha of land was yet to be acquired which included 85.171 Ha of the core area of the airport essential to make it operational. Land admeasuring 22.980 Ha held by various Government agencies[4] was remaining to be transferred.

The main reason for delay in acquisition of land was delay in finalisation of compensation package due to demand of PAPs for higher compensation. Audit observed that CIDCO framed (September 2007) compensation package without discussion with the stakeholders. The discussion with the PAPs for compensation package was initiated only in December 2009. The compensation package which could be finalised in November 2013 and notified by Government of Maharashtra in March 2014. Thus, there was delay of almost seven years in finalisation of compensation package resulting in delay in land acquisition process. Though, the compensation package was notified in March 2014, none of the PAPs had been given physical possession of alternate plots (February 2018) due to delay in land development works at the R&R sites.

CIDCO stated that the matter of transfer of Government land had been taken up with the respective authorities for handing over the balance land at the earliest.

As of February 2018, 164.527 Ha out of the 855.79 Ha of the land for the project was yet to be acquired.

Obtaining various clearances

3.1.5 The NMIA required prior clearances from State/Central Government Departments/Agencies[5] as the project falls in Category-A[6] as per Environmental

[4] Customs Department (GoI), Agriculture and Soils Department, Public Works Department (GoM), Panvel Municipal Council, Tata Power Company, Police Department and Rural Development Department

[5] MoEF, Ministry of Defence, Ministry of Home Affairs and Maharashtra Pollution Control Board

[6] Category-A projects/activities require prior Environmental Clearance from the MoEF on the EAC constituted by the GoI. All Airport projects which are for commercial use are included in 7a under Category-A

Impact Assessment (EIA) Notification (2006) and comprises Forest area. Therefore, it was essential to assess and identify the clearances which were required and to submit the application at the earliest to ensure expeditious clearance to commence the project activities.

While the EC and Costal Regulation Zone clearance (CRZ) were received in November 2010, Audit observed that there was delay in submission of applications to Ministry of Environment and Forests (MoEF) for the following key clearances after receipt of 'in Principle approval' for Navi Mumbai site (July 2007) from MoCA for the project/identification of R&R sites as given below:

Sl. No.	Nature of clearance	Date of application	Delay in submission of application from July 2007 (in months)
1	Forest Stage I clearance	22/12/2010	41
2	Coastal Regulation Zone (CRZ) clearance for shifting of EHVT lines	31/05/2016	107
3	CRZ clearance for Vadghar R&R site	30/06/2014	41 (from identification of site in January 2011)
4	Forest clearance for Pushpak Nagar R&R site	28/05/2015	23 (from identification of site in June 2013)

(Source: Information furnished by CIDCO)

It was also observed that while submitting application for Forest Stage I clearances in December 2010, the various certificates/documents[7] required to be submitted along with the application were not submitted.

For Forest Stage II clearance, the compliance could be filed by CIDCO in December 2015 as the State Government transferred the land for Compensatory Afforestation (CA) in October/November 2015. CIDCO applied for resolution of Gram Sabha as per Forest Rights Act (FRA) 2006, in August 2016 which was received in March 2017. The Forest Stage II clearance was obtained only in April 2017, thereby resulting in delay in commencement of pre-development works.

The application for Coastal Regulation Zone (CRZ) clearance for shifting of Extra High Voltage Transmission (EHVT) lines was submitted only in May 2016 after a delay of more than eight years and could be obtained in August 2017. In the case of Vadghar site[8], there was delay of more than three years in submitting (June 2014) the application for CRZ clearance though CIDCO had identified the site in January 2011 itself. The same was received in March 2015.

CIDCO only stated that the compliance process was complex and rigid requiring compliance by other Departments thereby requiring a single window clearance procedure for major infrastructure projects.

[7] Documents/certificates such as the High Court's order for cutting of Mangroves, R&R Policy, Certificate of compensatory and for Forest/Mangroves from Collector, copy of resolution from the Gram Sabha as per the Recognition of FRA, 2006, copy of EIA, Certificate regarding non-existence of forest in the R&R sites

[8] Vadghar site was under the Coastal Regulation Zone

While acknowledging the facts that obtaining clearances for such a project is a complex process, CIDCO should have ensured expeditious submission for various clearances to avoid the delay in commencement of project.

Non-compliance with environment Act/Rules/Notification

3.1.6 The work at project site had to be carried out in compliance with relevant Law/Rules/Notifications pertaining to Environment and Forests.

As per the EC conditions for the project, Biodiversity Mangrove Parks over an area of 615 Ha (including 245 Ha of good quality Mangrove Park in Vaghivli) in the vicinity of the airport site had to be developed and maintained before the airport project was initiated. Audit observed that the development of Mangrove Parks in the specified area as per EC condition had not been completed yet (February 2018).

As per the MoEF Notification (September 2006), land development activities in an area more than 50 Ha required prior EC. Audit observed that the land development and infrastructure works at the three R&R sites at Vahal, Vadghar and Pushpak Nagar were taken up by CIDCO without obtaining prior EC as per MoEF Notification (September 2006). The EC for Pushpak Nagar site was applied for in September 2014 after awarding work in June 2014 and in respect of Vahal and Vadghar sites the application for EC was not submitted (February 2018).

CIDCO applied for Forest clearance at Pushpak Nagar site comprising 22.50 Ha of Forest land only in May 2015 after award of work (June 2014). CIDCO was well aware of the fact that no activity was permissible on that land without Forest clearance as the land had already been transferred by CIDCO to Forest Department in February 2006 as CA land for Hetawane Project.

CIDCO stated that in case of Vadghar 48.06 Ha of land development work was initially awarded in February 2013 which was less than 50 Ha while in case of Vahal the initial site area was 40 Ha which was subsequently increased to 65 Ha. In Pushpak Nagar due to urgency of work, obtaining of EC was included in the work order itself and EC was obtained in November 2015. The reply was not tenable as CIDCO had awarded the work in Vadghar and Vahal site which required EC as the area was more than 50 Ha at both the sites.

Non-completion of pre-development works

3.1.7 Pre-development works had to be completed by CIDCO prior to the selection of concessionaire. CIDCO did not fix timelines for completion of pre-development works. There was no mention of details of pre-development works in the Detailed Project Report (DPR) prepared for the project. As the project area comprised Forest land, Forest Stage-II clearance was mandatory before commencement of pre-development works at the site. The final Forest clearance was received only in April 2017 as discussed in **para 3.1.5** resulting in delay in commencing the pre-development works. Though, CIDCO had awarded land development works valuing ₹ 1,502 crore in September 2016 the same could not be commenced till April 2017 due to non-receipt of Forest Stage II clearance.

The land development works (cutting of Ulwe hill, Ulwe river diversion and land filling/leveling) amounting to ₹ 2,033.71 crore were awarded during September 2016 to June 2017 and scheduled for completion in April 2019. The financial progress achieved in these works up to February 2018 was 11.42 *per cent*. The work of rerouting of EHVT line and construction of bridges for laying cable had not yet commenced (February 2018) even though the concessionaire had been appointed (October 2017). Non-completion of pre-development works by CIDCO would further delay the commencement of airport development work with consequential increase in costs. CIDCO had not completed land acquisition for the operational area where pre-development works had to be carried out (**refer para 3.1.4**). It is pertinent to note that expenditure on pre-development works up to ₹ 3,420 crore would be recovered from the concessionaire as interest free soft loan and any further increase in expenditure on pre-development works would have to be borne by CIDCO.

The estimated cost of the project for Phase-I with terminal capacity of 10 MPPA and pre-development expenditure was as given below:

(₹ in crore)

Year	2007	2008	2011	2013	2015	2016
Estimated cost of development of Phase-I of airport	4,200	4,424	3,333	3,749	4,133	5,534
Expenditure on pre-development works	Included in above	Included in above	1,917	2,933	3,144	3,267
Total cost of Phase-I	**4,200**	**4,424**	**5,250**	**6,682**	**7,277**	**8,801**

(Source: Information furnished by CIDCO)

Audit observed that the total estimated cost of Phase-I escalated by 99 *per cent* till 2016 compared to the cost in 2008 mainly due to delay in completing pre-development works, completing land acquisition and obtaining various clearances required to commence the works by CIDCO as discussed in **paras 3.1.4** and **3.1.5**. Due to delay in commencing the pre-development works, the estimated pre-development cost of ₹ 3,267crore[9] in 2016 was 59 *per cent* of the estimated cost (₹ 5,534 crore) of development of Phase-I of airport.

CIDCO stated that in a massive infrastructure project the costs involved have to be looked against the huge economic benefits expected from the project. Further, there was a need for a fast track single window clearance at GoI level for such projects. The reply justified the time and cost overrun, however, mega infrastructure project required rigorous and comprehensive planning for each component to ensure timely completion of each activity so as to minimise cost escalation. As evident from the audit findings CIDCO had failed to do this.

[9] Pre-development works comprises land development works awarded amounting to ₹ 2,033.71 crore, estimated cost of shifting of EHVT lines ₹ 1,071 crore, estimated cost of construction of bridge in mangrove area ₹ 135.81 crore, estimated cost of construction of bridge on Ulwe river ₹ 13.39 crore and awarded cost for providing road for rerouting of EHVT line ₹ 13.38 crore

Thus, CIDCO could not complete the pre-developmental works till date (February 2018) as the land development works was scheduled to be completed only by April 2019. The work of rerouting of EHVT line has not yet (February 2018) commenced.

Rehabilitation works

3.1.8 CIDCO had decided in the Draft Rehabilitation Policy framed in September 2007 to allot developed plots to the PAPs in lieu of the land to be acquired. It was, therefore, necessary to identify suitable R&R sites at the earliest to start work at the sites.

CIDCO had initially identified (January 2011) three R&R sites *viz*. Dapoli (55 Ha), Vahal (65 Ha) and Vadghar (76 Ha). Thereafter, two more sites, Pushpak Nagar (165 Ha) in June 2013 and Kundevahal (13 Ha) were identified in April 2015. The Dapoli R&R site and the Pushpak Nagar R&R site were merged to create Pushpak Nagar site of 220 Ha. It was observed that there were delays ranging from three and half years to eight years in identification of the R&R site after project approval due to lack of clarity on compensation package as the same was notified only in March 2014. The details of land development works and infrastructure works at the R&R sites are given below:

Name of the R&R site	When site was identified	Total area in Ha	Area actually developed in Ha	Administrative approval granted in	Work awarded on	Due date of completion	Actual date of completion
Dapoli/ Pushpak Nagar	January 2011/ June 2013	220	155.00	November 2011/ June 2013	February 2013 to January 2017	February 2014 to January 2019	January 2017[10]
Vadghar	January 2011	76	39.28	November 2011	February 2013 to January 2017	February 2014 to January 2018	July 2014[10]
Vahal	January 2011	65	45.00	December 2014	February 2015 to December 2016	February 2016 to December 2017	January 2017[10]
Kundevahal	April 2015	13	-	January 2016	June 2016	June 2017	Work was terminated in June 2017 as the land at the site was not transferred to CIDCO.
Total		**374**	**239.28**				

(Source: Information furnished by CIDCO)

It could be observed from the table above, that due to delay in awarding of works at site after identification of the site only 239.28 Ha of land could be developed (April 2017) against requirement of 374 Ha of land. Audit observed that the protests by PAPs at the R&R sites on account of delay in finalisation of compensation package as per their demands had affected the timely completion of works at sites.

Audit observed that at Vahal site, 12 Ha of land was encroached by container yards and 11.317 Ha of land at site was yet to be acquired resulting in delay in

[10] The land development works partially completed but infrastructure works scheduled to be completed by 2018-19

completing the works. Similarly, at Kundevahal site, the work was awarded without ascertaining whether the site was in possession of CIDCO. The fact that the site at Kundevahal was not in CIDCO's possession was realised two years (June 2017) after the award of work (April 2015). At Pushpak Nagar site 22.5 Ha of land comprised Forest land due to which work could not be carried on that area. Further, CIDCO had to incur additional expenditure of ₹ 14.11 crore on account of reimbursement of royalty charges to contractor for procurement of murum from outside the site as the murum available in Forest land at Pushpak Nagar could not be utilised without Forest clearance. These facts indicated that no survey was done prior to selection of site for R&R. The works at R&R sites were scheduled to be completed only by 2018-19 which ultimately would delay handing over of developed plots to the PAPs.

CIDCO stated that the final R&R policy and land compensation package was finalised in 2014 only. The process of identification of R&R sites commenced after receipt of in principle approval for the project in 2007. The survey of the sites could not be taken up due to stiff opposition of PAPs and higher expectation for compensation packages which were beyond the control of CIDCO. Further, it was decided to procure murum from the contractors as waiting for the Forest clearances would have delayed the work and on receipt of Forest clearance for 22.5 Ha land, the murum would be utilised for development in surrounding airport area.

The reply of CIDCO was not convincing as CIDCO had identified (January 2011) R&R sites after approval of MoCA and draft R&R policy in September 2007. CIDCO should have started the land development works at the already identified sites as it was already decided (September 2007) to go for a land to land compensation policy and only the exact quantum of compensation was to be finalised.

Thus, due to delay in commencing the works at R&R sites, the R&R sites had not been developed till date (February 2018) resulting in delay in allotment of plots to the PAPs.

Appointment of consultants

3.1.9 CIDCO based on tendering process, appointed (March 2008) a Project consultant[11] at a fee of ₹ 13.12 crore. The Consultant's brief included the work of preparation of various documents *viz*. Master Plan of the airport, Request for Qualification (RFQ), DPR, Request for Proposal (RFP) and Business Plan for selection of concessionaire and evaluation and assisting in bidding for selection of concessionaire with scheduled completion within a period of 12 months *i.e.* March 2009. The consultant was paid ₹ 11.46 crore till February 2018. The

[11] M/s. Louis Berger-INCECO-RITES (LBG) consortium

tasks to be completed by the Consultant and the actual completion dates of the tasks and reasons for delay are given below:

Task	Scheduled date of completion	Actual date of completion	Delay in months	Reasons for delay
Master Plan	March 2009	August 2011	28	The Master Plan had to be changed/modified as per the requirements of Environmental Clearance and could only be submitted in August 2011.
RFQ		January 2013	46	The delay in submission of these documents by the consultant was mainly due to lack of local expertise of consultant necessitating appointment of sub-consultant[12] in July 2011 by Consultant. Therefore, preparation of these documents could be taken up only after appointment of sub-consultant resulting in delay in their submission.
DPR		July 2014	64	
RFP		April 2015	73	
Business Plan		October 2015	79	

As stated above, there was inordinate delay in completion of the tasks assigned to the Consultant and the Master Plan was submitted in August 2011. The final DPR was submitted in July 2014. Meanwhile, CIDCO permitted (July 2011) Consultant to appoint a sub-consultant citing non-availability of local knowledge and skills with them and as the draft RFQ document prepared by Consultant were not up to the mark. As per Clause 4.7 of the agreement, the consultants could not sub-contract any part of the services in the area of expertise on the basis of which the consultant was evaluated during selection. It was observed that the MoCA had also advised (September 2007) CIDCO that the scope of work of the Consultant was vast which might result in deviation and delay in implementation of the project. The MoCA further advised (October 2007) CIDCO to appoint separate legal, financial and technical consultant; to restrict the RFP (for appointment of Project consultant) of September 2007; to appoint technical consultant and to limit the consultancy to preparation of the Master Plan.

As per the agreement with consultant, the EIA Study was to be reviewed and incorporated in the Master Plan to be prepared by the consultant. However, CIDCO agreed (March 2015) to pay additional compensation of ₹ 6.48 crore to Consultant citing assistance in acquiring EC, preparation of RFQ and RFP documents and assisting in bidding process. This was not justified as CIDCO had appointed (August 2007) IIT-Bombay to prepare EIA Study Report for obtaining EC from MoEF and the work of preparation of RFQ and RFP along with assisting in bidding process was already included in the original scope of work of Consultant. CIDCO had paid ₹ 6.48 crore up to February 2018 to the consultant.

CIDCO stated that a single technical consultant comprising various key experts/ sub-consultant was beneficial in the interest of the project to avoid duplication as well as co-ordination and responsibility issues among the consultants. It was also stated that the project underwent several modifications during the EAC meetings resulting in modification in the Master Plan, the key financial experts were replaced with highly reputed and experienced personnel in aviation as per Clause 4.3 of contract agreement resulting in appointment of sub-consultant under Consultant. The additional compensation was paid on account of

[12] M/s KPMG

additional work on account of revision of Master Plan, technical support during EC and establishment cost beyond the initial contract period of 12 months.

The reply was not convincing in view of the facts stated above that the consultant had to submit all the documents within scheduled time and not merely the Master Plan. Further, Clause 4.7 did not allow for sub-contracting, the services in an area of expertise for which the consultant firm or member firms were evaluated as part of selection process of the consultant. Besides, as per the agreement, the EIA Study was to be reviewed and incorporated in the Master Plan study by the consultant, therefore, the same was in the original scope of work of the consultant and did not constitute additional work.

Selection of concessionaire for the project

3.1.10 The Navi Mumbai Airport was to be developed through PPP mode for which a concessionaire had to be selected through a global bidding process by issue of RFQ and RFP.

The bidding documents (RFQ & RFP) were to be submitted by the Consultant by March 2009. Audit observed that the draft RFQ was submitted by the consultant only in January 2013 and the same was approved by PMIC/MoCA in November 2013. Thus, there was delay of more than three years by the consultant in submission of the RFQ document. Similarly, the draft RFP was submitted by the consultant in April 2015 and approved by PMIC in October 2015 and by MoCA in January 2016. Thus, there was delay of six years in submission of RFP document by the project consultant.

CIDCO stated that work of drafting RFQ documents was started by the consultant after receipt of EC and the first draft was submitted to PMIC in January 2013. The delay in completion of RFQ process was due to delay in receipt of security clearance. The reply was not convincing as the scope of work of the consultant included preparation of bid documents within 12 months and did not include providing assistance to CIDCO in obtaining EC as a separate consultant *viz*. IIT-Bombay was appointed for the work.

The RFQ was floated in February 2014 and the RFP was issued to qualified bidders in May 2016. The bids were opened in February 2017. Out of the two bids received, the bid of M/s. Mumbai International Airport Limited (MIAL), the existing operator of Mumbai Airport, quoted the highest gross annual revenue share of 12.60 *per cent.* The letter of Award was issued to MIAL in October 2017 and concessionaire agreement entered into in January 2018.

As per the concession agreement, the concessionaire has to achieve Financial Closure (FC) within 180 days from the agreement. Further, the Appointed Date (AD) would be 180 days (*i.e.* by June 2018) from the agreement date subject to conditions precedent being complied with by the concessionaire and CIDCO. The construction work of the airport would begin only from AD and was to be completed within 1,245 days. As the entire land was not yet acquired and the pre-development works have not been completed, execution of concession agreement without completing the land acquisition and pre-development works lacks justification.

Monitoring

3.1.11 A Steering Committee (SC)[13] was set up in July 2007 by MoCA for monitoring of the project. The MoCA constituted (November 2012) a Project Monitoring and Implementation Committee (PMIC)[14] headed by the Chief Secretary (CS), GoM to prepare bid documents, conduct bidding process and to assist in obtaining clearances. A sub-committee of the PMIC was formed in July 2013 headed by the Managing Director of CIDCO for finalising project related documents. The GoM formed (May 2011) a High Level Advisory & Monitoring Committee[15] (HLAMC) to monitor the compliances of the conditions stipulated while granting environment and CRZ clearances by the MoEF.

Audit observed that the SC which was formed to monitor the progress of the project met only eight times and last meeting was held in January 2012. In the absence of meeting of SC at regular interval, monitoring the progress in execution of the project and necessary guidance/directions provided to CIDCO/GoM on various issues concerning the project could not be ensured. The PMIC was also mandated to assist in obtaining various clearances for the project. PMIC met only twice during the calendar years 2014 and 2015 when the bidding of concessionaire had begun and the business plan and project documents were to be finalised. The HLAMC formed to monitor the compliance of the stipulations in the EC met only once (June 2011) though it was required to meet at least once in three months as per EC condition.

CIDCO stated that the MoCA constituted PMIC under chairmanship of State CS and with representatives from MoCA and Airport Authority of India with mandate to prepare all project documents including bid and transaction documents for final approval of Central Government hence the PMIC practically took over the functioning of SC. The meeting of HLAMC would be held soon.

The reply was not in accordance with the order constituting PMIC which clearly stated that the SC will oversee the overall progress of the project. Therefore, holding of SC and PMIC meetings at regular intervals to monitor the progress of the project was very essential.

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[13] Steering Committee comprising Secretaries of Ministry of Civil Aviation, Ministry of Home Affairs, Ministry of Defence, Department of Economic Affairs, Department of Revenue; Secretary, Planning Commission; Director General, India Meteorological Department; Chairman, Airport Authority of India; Director General of Civil Aviation and Joint Secretary, Ministry of Civil Aviation-Convener

[14] PMIC comprised of Chief Secretary, GoM; Principal Secretary-I (Urban Development Department), GoM; Principal Secretary (Finance), GoM; Joint Secretary (Ministry of Civil Aviation), GoI; Chairman, Airport Authority of India and Managing Director, CIDCO

[15] Comprising Principal Secretary (Urban Development Department)-GoM, Principal Secretary (Forests), Secretary (Environment)-GoM, Managing Director (CIDCO), Joint Managing Director (CIDCO), Director (National Environmental Engineering Research Institute), Director General (The Energy and Resources Institute) and Director, Bombay Natural History Society

Conclusion

CIDCO having selected the Navi Mumbai site for development of Greenfield airport project with scheduled commencement of operation in 2012-13 could not complete the various activities such as pre-development works, land acquisition, necessary clearances, development of R&R sites and R&R of 3,000 project affected families even after more than 10 years from the receipt of approval for the project. Non-completion of the required activities by CIDCO has resulted in cost and time overrun on the project.

Haffkine Bio-Pharmaceuticals Corporation Limited

3.2 *Non-compliance with income tax rules and consequent loss*

The Company did not file the Income Tax returns on due dates and had to forgo the set off benefit of carry forward loss which resulted in loss of ₹ 1.21 crore. The Company also did not get the refund of excess tax paid ₹ 43 lakh.

Haffkine Bio-Pharmaceuticals Corporation Limited (Company) is registered under the Companies Act, 1956 and engaged in manufacturing of pharmaceutical products. Section 139(1) of the Income Tax Act, 1961, stipulates that every Company should file a return of its taxable income for the Previous Year (PY) in the relevant Assessment Year (AY), before the prescribed due date, which is 30 September of the AY. Further, as per Section 72 of the Act, if a Company had incurred business loss during the PY relevant to an AY, such assessed business loss can be carried forward for eight consecutive years, for the purpose of set off against business income of these years. However, returns should be filed within due date as prescribed under Section 139(1), failing which, the benefit of carry forward of loss would not be available.

The Company incurred a loss of ₹ 4.72 crore for the AY 2009-10 which could have been carried forward for next eight years. The Company was also entitled for a refund of ₹ 43 lakh, if the Income Tax (IT) return for the AY 2009-10 had been filed on or before due date. The Company, however, did not file its IT return for the AY 2009-10 within the due date *i.e.* 30 September 2009. The Company received (May and December 2011) notices under Section 142(1) from the IT Department for non-filing of the returns for the AY 2009-10 under Section 139(1). The Company, however, did not file the IT return.

Thereafter, the Company filed (October 2013) the IT return for AY 2010-11, wherein it had set off brought forward loss of ₹ 4.72 crore of AY 2009-10. The IT Department allowed (March 2014) the set off claim of carried forward loss of the Company to the extent of ₹ 1.15 crore (being unabsorbed depreciation for the AY 2009-10) and disallowed ₹ 3.57 crore on the ground that the Company had not filed the return of income for AY 2009-10 as required under section 139(1) of the Act *ibid*.

Thus, non-compliance with provisions of IT Act regarding timely filing of returns resulted in disallowance of the Company's claim for setting off the carry forward loss of ₹ 3.57 crore. Consequently, they had to pay extra tax by ₹ 1.21 crore for the AY 2010-11. Further, the Company did not get the refund of ₹ 43 lakh for the AY 2009-10.

The Company stated (July 2016) that the delay in filing the IT return was due to non-existence of information technology environment and absence of adequate manpower for finalisation of accounts during the period. The Company further stated that they had filed (November 2014) an appeal with the Central Board of Direct Taxes (CBDT) seeking condonation for delay in filing the return for AY 2009-10.

The reply was not tenable as the Company's appeal with CBDT seeking condonation for delay was also rejected in March 2017 stating that it was not a case of genuine hardship and there was no sufficient cause beyond the control of the Company preventing it from filing its return.

The matter was reported to the Government/Management (May 2017); their reply was awaited (February 2018).

Maharashtra State Electricity Distribution Company Limited

3.3 *Billing and collection efficiency of electricity dues of High Tension and subsidised Low Tension consumers*

Introduction

3.3.1 Maharashtra State Electricity Distribution Company Limited (Company) is engaged in distribution of power to the consumers within the State of Maharashtra (except Mumbai and certain Suburban areas). Sections 61 and 62 of the Electricity Act, 2003, empower the Maharashtra Electricity Regulatory Commission (MERC) to determine tariff for retail sale of electricity. MERC issued MERC (Terms and Condition of Tariff) Regulations, 2005, Multi Year Tariff (MYT) Regulations, 2011 and 2015 under which tariff orders for distribution licensees are being issued from time to time and followed by the respective distribution licensees in recovery of the charges for the power distributed by it within its licensed area.

The Government of Maharashtra (GoM), from time to time, declared subsidies to different categories[16] of consumers. The amount of subsidy so declared is reimbursed/adjusted by the Government towards electricity duty and tax on sale of electricity payable by the Company. This is in addition to the cross subsidy[17] to certain categories of consumers which is inbuilt in the tariff orders issued by MERC.

[16]Agriculture and Power loom,

[17]The tariff fixation is done by MERC above or below the Average Cost of Supply (ACoS) for all categories of consumers of the Company. Cross subsidy means fixation of tariff below ACoS for subsidised category of consumers through category of consumers whose tariff are above the ACoS

The Company has 44 Operation & Maintenance (O&M) Circle Offices as on 31 March 2017 which were entrusted with the billing of High Tension (HT) and Low Tension (LT) consumers. The category-wise consumers' details and billing efficiency during 2014-15 to 2016-17 is given in the table below:

Category	HT Total	LT-Agriculture (Metered)	LT-Agriculture (Un-metered)	Total (Agriculture)
2014-15				
Meter sale (MUs)	**32,387.57**	13,644.94	0.05	**13,644.99**
Demand (₹ crore)	**24,874.05**	1,339.66	1,080.35	**2,420.01**
Collection (₹ crore)	**24,674.12**	457.05	412.95	**870.00**
Efficiency (*per cent*)	**99.20**	34.12	38.22	**35.95**
2015-16				
Meter sale (MUs)	**30,280.42**	15,399.95	0.09	**15,400.04**
Demand (₹ crore)	**24,548.01**	1,267.65	990.39	**2,258.04**
Collection (₹ crore)	**24,444.88**	216.56	80.97	**297.53**
Efficiency (*per cent*)	**99.58**	17.08	8.18	**13.18**
2016-17				
Meter sale (MUs)	**29,400.10**	15,435.04	0.60	**15,435.64**
Demand (₹ crore)	**24,216.85**	1,543.89	1,380.67	**2,924.56**
Collection (₹ crore)	**24,109.35**	226.05	73.23	**299.28**
Efficiency (*per cent*)	**99.56**	14.64	5.30	**10.23**

(Source: Information furnished by the Company)

The details of billed energy and collection efficiency of the Company for the period 2014-15 to 2016-17 in respect of HT consumers was ranging between 99.20 *per cent* and 99.58 *per cent*. This indicated that there was efficiency in collection of dues from the HT consumers.

Scope and Audit objectives

3.3.2 The Company supplies electricity to 2.20 crore consumers across different categories in Maharashtra consisting of 1.62 crore residential, 0.37 crore agricultural, 0.16 crore commercial, 0.04 crore industrial and 0.01 crore other category of consumers. Audit examined complete data of 31,489 HT and 12,55,027 un-metered Agricultural Consumers (AgC) for the period April 2014 to March 2017 using data analytics tools[18]. Audit also examined the billing data for 21,958 metered AgC of three sub-divisions selected on the basis of highest number of metered AgC.

The audit was conducted with an objective to assess the system of billing and collection of revenue to ensure recovery of dues of the Company as per various orders of MERC.

The audit findings were issued to the Company/GoM in June 2017. Reply of the Company (August 2017) had been considered while finalising the para. Reply of GoM was awaited (February 2018).

[18]KNIME is an open source data analytics, reporting and integration platform. KNIME integrates various components for machine learning and data mining through its modular data pipelining concept. A graphical user interface allows assembly of nodes for data preprocessing (ETL: Extraction, Transformation, Loading) for modeling, data analysis and visualisation

Audit findings

Avoidable load factor incentive when load factor was greater than 100 per cent

3.3.3 The Load Factor (LF) has been defined as consumption during the month in Million Units (MUs)/Maximum Consumption Possible (MCP) during the month in MUs. MCP is the Contract Demand (CD) (kVA) x Actual Power Factor x (Total No. of hours during the month less planned load shedding hours[19]).

As per MERC orders,[20] the LF incentive is given to those consumers having LF exceeding 75 *per cent*. Consumers with LF up to 85 *per cent* will be entitled to a rebate of 0.75 *per cent* on the energy charges for every percentage point increase in LF from 75 to 85 *per cent.* Those consumers having a LF exceeding 85 *per cent* will be entitled to rebate of one *per cent* on the energy charges for every percentage point increase in LF above 85 *per cent*. The total rebate under this head will be subject to a ceiling of 15 *per cent* of the energy charges for all consumers.

Audit observed that the LF of 76 HT-I (industrial) consumers had exceeded the MCP collectively at 108 instances during the period from 2014-15 to FY 2016-17. However, the LF of any consumer could not be higher than 100 *per cent*. The Company had given LF incentive of ₹ 9.69 crore in 108 instances to 76 ineligible consumers having LF greater than 100 *per cent* during the above period as detailed below:

Year	Details of consumers whose LF exceeded 100 *per cent*		
	No. of consumers	**Number of instances**	**LF incentive (₹ in crore)**
2014-15	37	52	4.92
2015-16	21	31	1.88
2016-17	18	25	2.89
Total	**76**	**108**	**9.69**

(Source: Billing data furnished by the Company)

The Company stated (August 2017) that the recovery could not be initiated against 12 cases as they had exceeded their contract demand in night zone of billing *i.e.* during 22:00 hrs to 06:00 hrs which was permissible as per the MERC tariff order. For remaining 96 cases, it was stated to be a billing mistake and the LF incentive given to these consumers would be withdrawn. Audit observed that in 11 out of the 12 cases who had exceeded their CD in night zone of billing, the demand recorded exceeded the connected load, which was in contravention to the agreements entered into with the consumers and therefore excess LF incentive was to be recovered.

[19]Interruption/non-supply up to 60 hours in a 30 day month has been built in the scheme

[20]MERC approved Tariff Schedule (in Annexure-II) vide orders dated 16 August 2012 (in Case No.19 of 2012), 26 June 2015 (in Case No.121 of 2014)

Incorrect payment of power factor incentive

3.3.4 Power Factor (PF)[21] is the *ratio* of real power (kW) to apparent power (kVA). The MERC directs consumers to maintain PF at a prescribed level and allows incentive/deducts penalty for maintaining PF above/below the prescribed level.

MERC tariff orders (16 August 2012 and 26 June 2015) directed the Company to allow PF incentive to HT consumers at the rate of one *per cent* of monthly bill excluding taxes and duties for every one *per cent* improvement in PF above 0.95 up to 0.98, five *per cent* for PF 0.99 and seven *per cent* for PF 1. MERC tariff orders also allow Company to charge penalty if PF is below 0.90 and penal charges at the rate of one *per cent* shall be levied for every one *per cent* decrease in PF from 0.90 to 0.81.

As per MERC tariff orders, whenever the average PF measurement was not possible through the installed meters, the average PF during the billed period was to be adopted as total kWh/kVAh (wherein the kVAh was square root of summation of squares of kWh and RkVAh[22]).

Audit observed that the Company did not follow the above method for calculation of average PF. The Company while calculating the average PF did not consider the leading factor of PF and the consumers were allowed incentive/ charged penalty by considering only the lagging factor of PF.

The Company stated (August 2017) that MERC had directed the Company to study selected cases of PF (lead/lag) incentive/penalty along with their voltage profiles. It was also stated that the Company would approach MERC for permission to allow use of leading component in their computation. The reply of the Company was not tenable as formula adopted by the Company for calculation of average PF was in deviation of the formula prescribed by MERC.

Time of Day rebate to ineligible HT residential (HT-VI) consumption

3.3.5 The Time of Day (ToD) tariff is the tariff mechanism adopted by MERC for demand side management. There is a surcharge on the energy charges if the consumption is in the specified peak hours and rebate is allowed in off-peak hours. According, to the MERC tariff orders (16 August 2012 and 26 June 2015) ToD tariffs, in addition to base tariffs, will be applicable to specified HT categories[23].

Audit noticed that the ToD tariff was applied on the total consumption which included residential consumption measured through separate sub-meter and the benefit of ToD tariff was passed on to residential consumers also.

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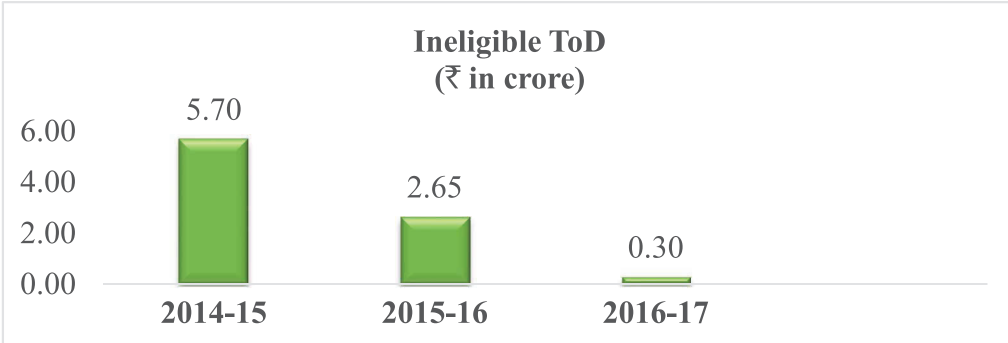
[21] Real power is power actually consumed while apparent power is the power injected in the system

[22] Reactive power

[23] HT Industrial and commercial

The rebate allowed on ineligible residential consumption in the HT billing during the period from April 2014 to February 2017 worked out to ₹ 8.65 crore, as depicted in the graph below:



While accepting the audit observation, the Company stated (August 2017) that incorrect methodology was earlier adopted which now had been modified with necessary changes in the billing program. The reply was, however, silent regarding recovery of the excess rebate allowed to ineligible consumers.

Excess load consumption over contract demand

3.3.6 After considering the HT consumer's requirement, the Company communicates the sanctioned load (in kW) and an agreement is entered into with the consumers with respect to their CD (in kVA) for supply of electricity. As per MERC tariff orders (16 August 2012 and 26 June 2015), in case a consumer exceeds his CD, he will be billed at the applicable DC rate for the demand actually recorded and also be charged an additional DC (penalty) at the rate of 150 *per cent* of the applicable DC (only for the demand in excess of CD). In case a consumer exceeds his CD on more than three occasions in a calendar year, action to be taken would be governed by the provisions of the MERC Supply Code Regulations (SCR), 2005. The SCR, however, did not specify any punitive action against the consumer. Consequently, HT consumers exceeded their CD on various occasions. Audit observed that during the period January 2014 to December 2016, in 12,452 bills the actual demand exceeded the CD as detailed below:

No. of times actual demand was more than the CD	No. of consumers exceeding CD during		
	2014	2015	2016
13	24	2	13
12	420	414	356
11	172	179	166
10	178	167	151
9	173	180	133
8	174	155	192
7	192	173	181
6	205	226	207
5	265	228	269
4	276	279	323
3	367	392	364
2	486	491	491
1	1,679	863	1,246
Total	**4,611**	**3,749**	**4,092**

(Source: Billing data furnished by the Company)

The actual demand was more than connected load because the consumers had either originally declared lower load or acquired additional equipment without consent and without paying the additional charges as per the conditions of supply.

The Company stated that penalty was levied as per MERC orders in this regard. It further stated that in case a consumer exceeded his CD on more than three occasions in a calendar year, the action was governed by the provisions of the SCR, 2005 which stated that the distribution licensee shall increase or reduce the CD of the consumer upon receipt of an application for the same from the consumer. However, it has not been specified in SCR as to what action was to be initiated by the Company in case of non-receipt of application from the consumer in such cases. The Company further stated (August 2017) that submission would be made to MERC regarding *suo moto* increase in the CD by the Company.

Delay in issue of first bills to HT consumers

3.3.7 The Company after providing connection to the new HT consumer has to issue first energy bill within one month or in the same HT monthly billing cycle to the respective consumers. On scrutiny of data of HT billing consumers for the period 2014-15 to 2016-17, it was observed that there were 614 HT consumers where there were delays in issue of first bill ranging from 41 to 132 days. The delay in issue of first bills resulted in delay in realisation of dues amounting to ₹ 19.56 crore.

Audit also noticed that out of total connections released during the audit period, 15.81 *per cent* of cases were delayed by more than 40 days[24].

Financial year	No. of consumers whose first bill was issued during the year	No. of consumers whose first bill was delayed beyond 40 days	No. of consumers whose first bill was delayed beyond 40 days (in *per cent*)	Amount involved for the consumers whose first bill was delayed beyond 40 days (₹ in crore)
2014-15	1,388	226	16.28	4.83
2015-16	1,270	228	17.95	10.69
2016-17	1,225	160	13.06	4.04
Total	**3,883**	**614**	**15.81**	**19.56**

(Source: Billing data furnished by the Company)

While accepting the audit observation, the Company stated that instructions had been issued for timely issue of first bill to HT consumers.

Delay in issue of first bills of LT agricultural consumers

3.3.8 As per billing schedule, the first bill was to be generated within billing cycle (three months, quarterly) of AgC. Audit examined the billing data for 21,958 metered AgC of three[25] sub-divisions selected on the basis of highest number of metered AgC. Of these, first bills were issued during the audit period in respect of 1,944 AgC. Audit noticed that there was delay in issue of first bill

[24]Considering 10 days for feeding and issuing bills

[25]Dhule, Digras and Mahur

by more than 90 days in 856 cases leading to delay in realisation of total revenue of ₹ 0.43 crore in these three sub-divisions.

The Company attributed the delay to disturbances of online system in remote areas, mismatch of data of meter number and Distribution Transformer Centre (DTC) number and delay in feeding details of new service connection. The reply was not tenable as the Company had constraint on its working capital requirement.

Delay in processing of energy bills

3.3.9 As per billing schedule, the bills were to be generated within five days from reading of meter data of HT consumers. It was observed that in 4,16,936 out of 7,32,036 bills (57 *per cent*), energy bills were issued six to 51 days after the reading date by the Company. Consequently, there was a delay in recovery of revenue and loss of interest of ₹ 41.24 crore as detailed below:

Year	Total No. of bills generated	No. of cases where bills were generated beyond five days	Loss of interest[26] (₹ in crore)
2014-15	2,38,368	1,50,421	14.04
2015-16	2,43,677	1,50,707	15.77
2016-17	2,49,991	1,15,808	11.43
Total	**7,32,036**	**4,16,936**	**41.24**

(Source: Billing data furnished by the Company)

The Company accepted that there was delay due to introduction of new meter reading system and analysing and validating the same.

Excess recording of sale of energy against input of energy in 9,785 feeders

3.3.10 Energy is injected to Distribution Transformer Centre (DTC) from distribution feeders at sub-stations. On scrutiny of feeder-wise data of input energy and sale of energy units for the year 2014-15 to 2016-17 (up to December 2016), it was observed that out of 43,122 feeders, 9,785 feeders (23 *per cent)* were having excess sales of billing units of 124 *per cent* against the input units in last three years.

The Company stated that the excess recording of sale of energy against input of energy was due to incorrect mapping (feeder-DTC-consumer data), faulty meter of feeders, load shifting entry, *etc*. The Company stated that they would be taking action by correcting DTC mapping, entering correct data by field offices and cross checking of feeders to rectify the inaccuracies. The Company should effectively strengthen the system to correctly map input and output of energy recorded.

Billing and collection efficiency

3.3.11 The Collection efficiency of electricity dues for HT consumers *vis-a-vis* the Current Bill Demand (CBD) and Total Billed Demand (TBD) (including arrears and interest on arrears, if any) was analysed for the three years from

[26] Calculated at 9.70 *per cent* per annum for number of days beyond five days from meter reading date

2014-15 to 2016-17. It could be seen that the efficiency, when calculated by considering the CBD and collection during each financial year, was above 99 *per cent*. On the other hand, the efficiency, when calculated by considering the TBD and collection during each financial year, was varying from 70.87 to 74.53 *per cent*. This clearly indicated that the Company was not efficient in recovering arrears from the consumers which in turn has reduced the collection efficiency year by year. The table given below depicts a summary of the billing and collection efficiency of the Company as assessed by Audit.

(₹ in crore)

Year	TBD	CBD	Collection	Efficiency	
(1)	(2)	(3)	(4)	(5)=(4)/(2)	(6)=(4)/(3)
2014-15	33,936.17	24,874.05	24,674.12	72.71	99.20
2015-16	32,796.62	24,548.01	24,444.88	74.53	99.58
2016-17	34,019.12	24,216.85	24,109.35	70.87	99.56

(Source: Billing data and Managing Director's Report of the Company)

Conclusion

The Company paid Load factor incentive of ₹ 9.69 crore to 76 HT consumers whose load factor exceeded more than 100 *per cent*. The Company did not adopt the formula as prescribed by MERC while calculating the PF incentive/penalty to HT consumers. The Company passed on Time of Day rebate to ineligible Residential HT-VI consumers amounting to ₹ 8.65 crore. The collection efficiency of the Company by considering the total billed demand and collection during each financial year was varying from 70.87 to 74.53 *per cent*.

3.4 *Excess payment*

The Company made excess payment of ₹ 5.45 crore towards fixed charges, at higher rates, to the co-generator.

Maharashtra State Electricity Distribution Company Limited (Company) executed (21 June 2013) Energy Purchase Agreement (EPA) with Party[27] for bagasse based co-generation power project (44 MW). The EPA was effective for a period of thirteen years from 1 April 2013 and purchase of electricity from the co-generation project was governed by Maharashtra Electricity Regulatory Commission (MERC) Regulations/tariff orders issued from time to time.

As per clause no. 10.1 of MERC (Terms and Condition for Determination of Renewable Energy Tariff) Regulations, 2010, the tariff for fixed cost component was to be determined on levelised[28] basis considering the year of commissioning of the project. Further, the date of commissioning in relation to a unit meant the date declared by the generating company.

Audit observed that in the invoice from Party, the date of commissioning for this co-generation power project was 22 March 2013 and as per MERC order

[27] Urjankur Shree Tatyasaheb Kore Warana Power Company Limited and Shree Tatyasaheb Kore Warana Sahakari Sakhar Karkhana Limited at Kolhapur

[28] Levellised Tariff is calculated by carrying out levelisation over useful life considering the discount factor equivalent to the weighted average cost of capital, to represent the time value of money

(30 March 2012), the levelised fixed charges for non-fossil based bagasse co-generation power projects for thirteen years was at the rate of ₹ 2.26 per Kwh for the projects commissioned during the year 2012-13. However, the EPA executed by the Company considered ₹ 2.38 per Kwh as tariff for the fixed component which was applicable to 2013-14 considering the Commercial Operation Date[29] (COD) as 03 April 2013. As a result, the Company paid an excess amount of ₹ 5.45 crore to Party towards fixed charges on purchase of 453.87 MUs of energy during the period from April 2013 to December 2016.

The Company stated (December 2017) that the Party had declared the COD as 03 April 2013 and hence the rate for 2013-14 was applied. The reply was not acceptable in view of the MERC regulations which stated that the tariff for fixed cost component was to be determined considering the year of commissioning of the project. Further, the agreement with the Party mentioned that the commissioning date was the date on which the project was ready for generation of electricity before declaration of COD. Thus, 22 March 2013 (2012-13), which was the date of commissioning as observed in the invoice raised by the Party, was to be considered for fixed tariff. The Company therefore made excess payment of ₹ 5.45 crore to the Party due to consideration of higher rates applicable for 2013-14 on basis of COD.

The matter was reported to the Government (June 2017); their reply was awaited (February 2018).

3.5 *Loss due to non-backing down of costly Bagasse based generation units*

The Company purchased costly power from Bagasse based power generators by backing down other economic power producing units.

The Company executed Energy Purchase Agreement (EPA) with thirteen Bagasse[30] based co-generation power producers (Kolhapur Circle) for a period of 13 years. The Generators are entitled for reimbursement of fixed cost as decided at the time of agreement and variable cost as decided by Maharashtra Electricity Regulatory Commission (MERC) from time to time. As per Clause 11.1 and 11.2 of MERC (Terms and conditions of determination of renewable energy tariff) Regulation, 2010, the biomass power generating plants and co-generation plants should be subjected to Merit Order Despatch (MOD) principles[31] and Scheduling and Despatch Code (SDC) as specified under the State Grid Code (SGC). The EPA with the generators also reiterated that co-generation plant should be subjected to MOD principles and to SDC as specified under the SGC. Accordingly, when the variable cost of Bagasse Based Generators (BBG) exceeds the variable cost of other producers, BBG should be subjected to MOD and their units should be backed down.

[29] Commercial Operation Date means the date on which generation facility starts delivering power to MSEDCL

[30] Bagasse is the combustible organic matter left after the extraction of the usable products of sugarcane

[31] MOD principle is a matter of judgement to be exercised from time to time so as to procure power from the cheapest sources

On scrutiny of records of energy purchased from BBG[32] and backing down of electricity as per instructions given by the State Load Despatch Centre (SLDC), Audit observed that the bagasse units were never backed down and the Company continued to purchase power from BBG even when energy at cheaper rate was available from other producers who had backed down their generation units.

Test check of the purchase of power from BBG during the period April to December 2016 in which the Company purchased 569.50 MUs from them, it was noticed that though the power was available at lower variable rates, the Company purchased costly power from BBG at ₹ 4.27 per unit as the units producing cheaper energy had been backed down. Audit therefore considered MOD data of variable charges and backing down data of SLDC for 15th of every month during the period April 2016 to December 2016 and observed that this had resulted in excess expenditure of ₹ 3.79 crore[33] for these nine days on the purchase of costly power from BBG, while cheaper alternate sources were backed down. Further, the BBG were never subjected to MOD and were not backed down.

The Company continued to purchase power from BBG even when energy at cheaper rate was available from other producers who had backed down their generation units.

The Company stated (December 2017) that the bagasse based co-generation plants were not subjected to MOD principles in view of SGC of 2008 which stated that all renewable energy generators were not to be considered for MOD. The reply was not tenable as later in 2010, the MERC (Terms and conditions of determination of renewable energy tariff) Regulation, 2010 (Clause 11.1 and 11.2) had mentioned Bagasse based co-generation power shall be subjected to MOD principles and scheduling and dispatch code. Therefore the Company should have provided details of bagasse based co-generation plants to SLDC and avoided purchase of costly power from Bagasse based power generators.

The matter was reported to the Government (July 2017); their reply was awaited (February 2018).

Maharashtra State Electricity Transmission Company Limited

3.6 *Extra expenditure*

Injudicious decision of the Company to convert 25 MVA Power Transformers to 50 MVA resulted in extra expenditure of ₹ 3.12 crore as compared to the cost of new 50 MVA transformer.

Maharashtra State Electricity Transmission Company Limited (Company) allocated (October 2015) the work of conversion of existing 25 MVA 220/33 KV Power Transformer (PT) to 50 MVA 132/33 KV PT to M/s Mahati Industries Private Limited (MIPL) at scheduled rates. Accordingly, the Circle

[32] Thirteen BBG

[33] Worked out on the basis of the MOD data of variable charges and backing down data of SLDC for 15th of every month during April to December 2016

office, Amravati conducted (February 2016) Joint Inspection with MIPL to finalise the estimate of quantities required for conversion of old PT. After considering the available materials from the old PT which could be used, the quantities required for conversion were finalised and work order was issued (March 2016) for ₹ 2.71 crore with completion period of 150 days. Inspection of converted PT was made in August 2016 and interim payment of ₹ 1.83 crore was released (September 2016). The completed PT was commissioned in March 2017.

As per PT standardisation Manual published (January 2014) by Indian Electrical and Electronics Manufacturing Association (IEEMA), if the estimated repair cost of a PT was more than 60-65 *per cent* of cost of new PT, scrapping of the transformer was to be considered. It was also stated in the manual that higher energy efficiency of new PT should be considered while taking decision of repair of an old transformer.

Audit observed that a detailed evaluation/feasibility analysis was not done before issuing the work order for conversion of PT considering the cost of repairs/conversion *vis-a-vis* cost of new PT. The total cost in the instant case for conversion of old 25 MVA PT to 50 MVA worked out to ₹ 3.49 crore[34]. It is pertinent to note that the Company had in 2016 purchased new 50 MVA PTs at a price of ₹ 2.06 crore each. Further, the Company could have availed a guarantee period of 60 months on purchase of new 50 MVA PT as against 24 months on converted PT.

Similarly, in another case in Akola Circle, we observed that 25 MVA 132/66 KV PT was converted (November 2016) to 50 MVA 132/33 KV PT by M/s MIPL. The total cost of conversion in this case worked out to ₹ 2.98 crore[35].

From the above, it was evident that the purchase of new 50 MVA PT would not only have been an economical option but also benefitted the Company by way of longer guarantee period, better operational efficiency and including longer life. Thus, the Circle offices did not exercise due diligence before opting for conversion of PT. This injudicious decision led to extra expenditure of ₹ 1.89 crore[36] in the first case and ₹ 1.23 crore[37] in the second case in conversion of 25 MVA PT to 50 MVA as compared to the cost of new 50 MVA transformer besides forgoing other benefits of longer guarantee period and better operational efficiency.

The Company stated (August 2017) that as the PT was urgently required and alternate arrangement by way of procurement through e-tendering would have

[34] Cost as per work order ₹ 2.71 crore + taxes ₹ 0.18 crore + cost of old material used ₹ 0.46 crore + cost of transportation ₹ 0.32 crore + cost of Oil ₹ 0.18 crore - discount received ₹ 0.29 crore - PVC ₹ 0.07 crore = ₹ 3.49 crore

[35] Cost as per work order ₹ 2.35 crore + taxes ₹ 0.18 crore + cost of old material used ₹ 0.31 crore + cost of transportation ₹ nil + cost of Oil ₹ 0.14 crore = ₹ 2.98 crore

[36] Cost of conversion ₹ 3.49 crore - Cost of new 50 MVA PT ₹ 2.06 crore including taxes + cost of old material used ₹ 0.46 crore = ₹ 1.89 crore

[37] Cost of conversion ₹ 2.98 crore - Cost of new 50 MVA PT ₹ 2.06 crore including taxes + cost of old material used ₹ 0.31 crore = ₹ 1.23 crore

taken longer time, the decision of converting 25 MVA to 50 MVA PT was taken. The reply was not tenable as the work order for conversion of old PT at Amravati was issued in March 2016 and the converted PT was commissioned only in March 2017 (after 12 months). On the other hand, the Company took 10 months from the date of inviting tenders for purchase of new PT (February 2016) to the date of placement of purchase order (December 2016). The Company has also stated that it had now (July 2017) laid down a frame work to take judicious decisions in these matters and the corporate office would review all the proposals of overhauling/repairs considering the above aspect as well as IEEMA standardisation manual. The reply was also endorsed by the Government (September 2017).

3.7 *Delay in execution of work and blocking of fund*

The Company did not execute the work for which material costing ₹ 14.50 crore was procured during January to March 2014 resulting in loss of interest of ₹ 4.93 crore.

The Company ordered (October 2013) 652 kms of conductor (0.4 ACSR zebra conductor) for replacement of the EHV lines in Ratnagiri Division under Life Extension (LE) Scheme at a cost of ₹ 14.50 crore which was delivered during January to March 2014 at Karad store of the Company.

We observed that:

➢ The Company purchased 652 kms of conductor worth ₹ 14.50 crore which was delivered during January to March 2014. The Company had not commenced the execution of the above work, although more than three years have lapsed since procurement of material.

➢ The Company during March 2014 to April 2017 utilised 328 kms (only seven kms in March 2014 and 321 kms from March 2016 to April 2017) of conductor valued at ₹ 7.29 crore by diverting the material for other works under other Divisions. As on 31 March 2017, the balance material (324 km) valued at ₹ 7.21 crore was lying idle with the Company. This has resulted in blocking up of funds of ₹ 7.21 crore and consequential loss of interest of ₹ 4.93 crore[38].

The Company accepted (August 2017) that there was delay in execution of the project on account of various factors such as poor response from contractors, increase in labour cost, hilly and heavy rainfall areas and the work was to be executed on real time network ensuring security of the grid. It further stated that it had taken steps to utilise the balance conductor by March 2018. The Government endorsed (September 2017) the reply of the Company.

The facts remained that the Company was yet (January 2018) to take up the project for which material costing ₹ 14.50 crore was procured during January to March 2014 resulting in loss of interest of ₹ 4.93 crore.

[38]Calculated at four year weighted average interest rate for loans of 11.66 *per cent* per annum up to March 2017 on the unutilised material

3.8 *Non-recovery of Service Tax*

The Company did not recover the Service Tax of ₹ 29.26 lakh on supervision charges from two parties and deposited it from its own funds.

As per Section 66 B of the Finance Act, 1994, Service Tax (ST) shall be levied on the value of all services, other than those services specified in the negative list, provided or agreed to be provided in the taxable territory by one person to another. The negative list of services on which ST is not payable is provided under Section 66 D of the Act. The Company recovers supervision charges from various parties. These supervision charges recovered by the Company attracted ST as it was not included in the negative list provided under Section 66 D.

It was observed that during the period 2010-11 to 2014-15, the Company collected supervision charges on works executed by Renewable Energy project developers towards evacuation arrangement under supervision of the Company from seven parties without levying ST. When the matter was raised by audit, the Company directed (February 2015) its field offices to take necessary steps to deposit ST on the supervision charges collected by them. Accordingly, field offices deposited an amount of ₹ 138.65 lakh towards ST from its own funds. Thereafter, Company raised demands on the seven parties from whom the Company had recovered supervision charges. However, in response to the demand notices, two parties have deposited (September 2016/June 2017) ₹ 15.45 lakh.

The Company stated (September 2017) that it has recovered/adjusted an amount of ₹ 93.94 lakh of ST from five parties from the amount of supervision charges of cancelled/partially cancelled other projects of these parties which was already paid to the Company.

The non-compliance of the provision of the Finance Act, 1994, resulted in non-recovery of ST of ₹ 29.26 lakh from two parties.

The matter was reported to the Government (June 2017); their reply was awaited (February 2018).

Shivshahi Punarvasan Prakalp Limited

3.9 *Irregularities in slum rehabilitation management*

The Company went ahead with the rehabilitation of slum dwellers without proper mechanism for implementation. Though, the Company allotted 1,128 flats to a society for allotment to slum dwellers, the intended objective of vacating the encroached land could not be achieved and the slum dwellers were still occupying the land even after allotment of flats.

Shivshahi Punarvasan Prakalp Limited (Company) is engaged in rehabilitation of slum dwellers and Project Affected People (PAP) under Slum Rehabilitation (SR) Scheme. The Government of Maharashtra (GoM) decided (October 2006) to clear the land[39] at Sion-Chunabhatti encroached by slum dwellers by allotting flats constructed by Company under SR Scheme at Turbhe-Mandale, Mankurd on recovery of ₹ 2 lakh per flat.

In the meeting held (4 June 2008) under the Chairmanship of then Chief Minister, it was decided that the Company should hand over the flats to the Mahatma Jyotiba Phule Co-operative Housing Society (MJPCHS), a society formed by the slum dwellers instead of to the slum dwellers directly. Responsibility for handing over the flats to the slum dwellers was to be vested in the MJPCHS. It was also decided that the MJPCHS should get the slum dwellers vacated on allotment of flats and hand over the vacant land to Municipal Corporation. A bio-metric survey of the slum dwellers was also to be carried out by the MJPCHS and records were to be handed over to the Company. Accordingly, the Company handed over (July-September 2011) 1,128 flats to the MJPCHS without entering into any agreement with MJPCHS. The Society however, had not so far (January 2018) handed back the encroached area.

Audit observed that the Company before implementation of the scheme did not examine adequacy of the available units for allotment to all the slum dwellers of the area. Further, the manner in which the slum dwellers would be shifted and the area vacated by the slum dwellers secured was also not planned. In the case of SR Scheme, where the alternate accommodation was to be provided free of cost, eligibility for allotment was required to be verified and certified by Slum Rehabilitation Authority (SRA)/Competent Authority. The flats at Turbhe-Mandale, were allotted by recovering ₹ 2 lakh per flat and, therefore, the GoM dispensed with the requirement of verifying the slum dwellers who were to be allotted flats. The GoM/Company, however, did not design any mechanism to ensure that the flats were allotted only to the eligible beneficiaries. Further, there was no mechanism to repossess the flats allotted by MJPCHS in case the terms and conditions were violated by MJPCHS.

The Company (July 2017/September 2017) stated that they had acted as per the directions of the GoM and necessary actions within the limits of the policy decision taken at GoM level. It was also stated that the Chief Executive Officer, SRA was conducting an inquiry regarding allotments of flats to MJPCHS and its findings were awaited (January 2018).

The reply itself confirmed that there was no monitoring mechanism to ensure that allotment would be made only to the eligible slum dwellers and once the flats were allotted, the slum dwellers would vacate the area occupied by them. The credentials and capabilities of MJPCHS were not assessed before handing over the flats. As a result, the intended objective of rehabilitating the slum dwellers of the said land and getting the encroached land evicted could not be achieved.

The matter was reported to the Government (May 2017); their reply was awaited (February 2018).

[39]City Survey No. 126/2, 126/4 and 126/8 (part), at Chembur, Taluka Kurla (Chembur Division) at Sion-Chunabhatti

Statutory Corporations

Maharashtra Industrial Development Corporation

3.10 *Undue benefit to the plot holder*

The Corporation granted undue benefit to the plot holder by reducing the additional premium resulting in a loss of revenue of ₹ 6.48 crore.

The Corporation allotted (September 2006) a plot[40] at Pimpri Industrial area to Dr. D.Y. Patil Pratishthan, Pimpri, Pune (allottee) at a lease premium of ₹ 3.70 crore (at the rate of ₹ 4,740 per square metre) for educational purpose. As per the lease agreement (March 2007) the construction should be commenced within two years from the date of possession (21 December 2006) and it should be completed in three years (by 20 December 2009). Failing this, the Corporation had the right and power to resume possession of the land and everything thereon. The Corporation took no action to check if work had been completed as scheduled.

The Corporation, on the request of the allottee had given permission (March 2011) for an additional floor space index (FSI) in terms of the Clause No.18.4.1(d) in Development Control Regulations, 2009, as the land was allotted for educational purpose. The above permission was given despite the fact that the allottee had failed to adhere to the time schedule for completion of building construction.

In March 2014, after a lapse of more than four years from the scheduled date of completion, the Corporation issued show cause notice for non-completion of construction. The allottee responded by requesting the Regional Office (RO) for extension (18 March 2014) of three months from March 2014 for completion. The allottee simultaneously requested (2 June 2014) the then Chairman of the Corporation, for extension of time schedule by two months from June 2014. The Chairman approved six months' extension.

The RO informed (13 August 2014) the allottee that the request for grant of extension of time up to 31 December 2014 was considered subject to payment of ₹ 7.37 crore as non-refundable additional premium for non-completion of construction. The allottee requested (19 August 2014 and 29 October 2014) for waiver of the additional premium and stating that educational activities had commenced in the building prior to December 2009. The Corporation accepting this levied extension charges only for the period from 21 December 2009 to 22 March 2011 and *post facto* extension of time was granted (December 2014) for above period by charging ₹ 0.89 crore as additional premium.

Audit observed that the actual date of the Building Completion Certificate (BCC) was 31 December 2014. The Corporation however levied the charges for extension of date of BCC only up to 22 March 2011 which was the date of granting additional FSI.

[40] Plot No.BG-P-192 admeasuring 7,809 square metre

The Corporation had raised demand notice for payment of additional premium of ₹ 7.37 crore (August 2014) being fully aware that the construction of the building was not complete even at that time. Further, at the time of granting additional FSI in March 2011, the Corporation had mentioned that only the RCC work was completed and the photographs attached showed that the work was in progress. It is pertinent to note that the RO (August 2014) had stated that it was not possible that the construction could have been completed by December 2009 and therefore request of the allottee for waiver of charges would result in loss of revenue to the Corporation. However, the Corporation accepted the allottee's claim that educational activity had commenced in December 2009. Thus, the Corporation had granted undue benefit to the allottee which resulted in loss of revenue to the Corporation of ₹ 6.48 crore[41].

The Corporation stated (September 2017) that the Board of Directors had accepted (September 2014) the request of the party and accordingly the Chief Executive Officer had decided to levy extension charges of ₹ 88.76 lakh for the period from 21 December 2009 to 22 March 2011 as the allottee had commenced educational activity. The reply was contrary to the facts as there was non-completion of the construction in December 2009 as per their own reports and also the Corporation in August 2014 had raised the demand notice for ₹ 7.37 crore which was later in December 2014 revised to ₹ 0.89 crore.

The matter was reported to the Government (June 2017); their reply was awaited (February 2018).

Maharashtra State Warehousing Corporation

3.11 *Short levy of Stamp Duty*

Non-compliance with the provisions of the Maharashtra Stamp Act resulted in short levy of Stamp Duty of ₹ 38.11 lakh and consequent loss to the State exchequer.

As per the Maharashtra Stamp (Amendment) Act, 2006[42] (Act) the Stamp Duty (SD) to be levied on the agreements for works contracts up to ₹ 10 lakh was ₹ 100. Further, the SD to be levied for agreements for works contracts exceeding ₹ 10 lakh was ₹ 100 *plus* ₹ 100 for every ₹ one lakh in excess of ₹ 10 lakh or part thereof, subject to maximum of ₹ five lakh. The Act was amended (April 2015) and the SD to be levied was ₹ 500 for agreements up to ₹ 10 lakh and for agreements exceeding ₹ 10 lakh was ₹ 500 *plus* 0.1 *per cent* of the amount above ₹ 10 lakh subject to maximum of ₹ 25 lakh.

Audit observed that Maharashtra State Warehousing Corporation (Corporation) had awarded 229 works valuing ₹ 10.89 lakh to ₹ 2.34 crore respectively during the period 2012-17 and executed agreement with contractors on Stamp Paper valuing ₹ 100 for all works contract. Thus, Corporation had not followed the provisions of the Act which resulted in short levy of SD of ₹ 38.11 lakh.

[41] ₹ 7.37 crore - ₹ 0.89 crore

[42] Erstwhile Bombay Stamp Act, 1958

The Corporation accepted (August 2017) the audit observation and stated that they had initiated action for recovering the differential amount from the contractors and due care would be taken in future to follow the amended rules.

The matter was reported to the Government (July 2017); their reply was awaited (February 2018).

MUMBAI **(S. K. JAIPURIYAR)**
The 18 May 2018 **Principal Accountant General (Audit)-III, Maharashtra**

Countersigned

NEW DELHI **(RAJIV MEHRISHI)**
The 22 May 2018 **Comptroller and Auditor General of India**

ANNEXURES

Annexure 1
Statement showing investments made by State Government in Public Sector Undertakings whose accounts are in arrears
(*Referred to in paragraph 1.10)*

(Figures in columns 4 and 6 to 8 are ₹ in crore)

Sl. No.	Name of the Public Sector Undertaking	Year up to which accounts finalised	Paid up capital as per last finalised accounts	Period of accounts pending finalisation	Investment made by State Government during the year of which accounts are in arrears		
					Equity	Loans	Grants
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A	**Working Government companies**						
1	Forest Development Corporation of Maharashtra Limited ɸ	2015-16	322.88	2016-17	0.24	-	-
2	Punyashloka Ahilyadevi Maharashtra Mendi Va Sheli Vikas Mahamandal Limited	2014-15	5.97	2015-16 to 2016-17	-	-	21.73
3	Kolhapur Chitranagri Mahamandal Limited ɸ	1998-99	2.89	1999-2000 to 2016-17	0.35	0.13	-
4	Sahitya Ratna Lokshahir Annabhau Sathe Development Corporation Limited ɸ	2009-10	118.35	2010-11 to 2016-17	276.25	0.23	50.99
5	Maharashtra Co-operative Development Corporation Limited ɸ	2005-06	6.47	2006-07 to 2016-17	2.94	101.70	-
6	Maharashtra Patbandhare Vittiya Company Limited	2011-12	0.06	2012-13 to 2016-17	-	-	68.77
7	Maharashtra Rajya Itar Magas Vargiya Vitta Ani Vikas Mahamandal Limited	2014-15	85.46	2016-17	49.49	-	16.65
8	Maharashtra Small Scale Industries Development Corporation Limited	2014-15	14.50	2015-16 to 2016-17	-	-	3.00
9	Maharashtra State Handicapped Finance and Development Corporation Limited	2010-11	14.23	2011-12 to 2016-17	33.29	-	9.54
10	Maharashtra State Handlooms Corporation Limited ɸ	2015-16	89.90	2016-17	0.70	22.63	-
11	Mahatma Phule Backward Class Development Corporation Limited	2013-14	597.08	2014-15 to 2016-17	35.56	40.99	34.58
12	Maulana Azad Alpasankyak Arthik Vikas Mahamandal Limited	2011-12	177.50	2012-13 to 2016-17	223.19	-	-
13	Sant Rohidas Leather Industries and Charmakar Development Corporation Limited	2012-13	221.21	2013-14 to 2016-17	85.00	-	12.96
14	Shabari Adivasi Vitta Va Vikas Mahamandal Maryadit ɸ	2012-13	67.25	2013-14 to 2016-17	9.86	-	-
15	Vasantrao Naik Vimukta Jatis & Nomadic Tribes Development Corporation Limited ɸ	2013-14	169.01	2014-15 to 2016-17	26.94	3.06	25.00
16	Maharashtra Airport Development Company Limited	2015-16	17.05	2016-17	-	-	121.15
17	Maharashtra State Police Housing and Welfare Corporation Limited	2015-16	7.96	2016-17	-	-	545.59
18	Maharashtra State Road Development Corporation Limited	2014-15	773.56	2015-16 to 2016-17	-	358.04	273.20
19	Maharashtra State Mining Corporation Limited	2015-16	2.07	2016-17	-	4.57	-
20	Maharashtra State Powerlooms Corporation Limited	2014-15	12.77	2015-16 to 2016-17	1.00	0.40	-
21	M.S.E.B. Holding Company Limited	2015-16	87,392.75	2016-17	693.79	-	-
22	Maharashtra State Electricity Transmission Company Limited	2015-16	8,984.97	2016-17	-	-	5.34
23	Maharashtra Tourism Development Corporation Limited	2012-13	15.39	2013-14 to 2016-17	-	-	461.77
24	Mahila Arthik Vikas Mahamandal	2013-14	2.74	2014-15 to 2016-17	0.57	-	93.38
25	Nagpur Flying Club Private Limited	2015-16	0.85	2016-17	-	-	0.74
	Total A (Working Government companies)		**99,102.87**		**1,439.17**	**531.75**	**1,744.39**
B	**Working Statutory corporation**						
1	Maharashtra State Road Transport Corporation	2015-16	3,202.99	2016-17	486.97	-	-
	Total B (Working Statutory corporation)		**3,202.99**		**486.97**	**-**	**-**
	Grand Total (A + B)		**1,02,305.86**		**1,926.14**	**531.75**	**1,744.39**

Annexure 2

Summarised financial position and working results of Government companies and Statutory corporations as per their latest finalised financial statements/accounts

(Referred to in paragraph 1.14 and 1.18)

(Figures in columns (5) to (12) are ₹ in crore)

Sl. No.	Sector / Name of the company	Period of accounts	Year in which accounts finalised	Paid-up capital[1]	Loans outstanding at the end of year[2]	Accumulated profit(+)/ loss(-)	Turnover	Net profit(+)/ loss(-)	Net impact of Audit comments[3]	Capital employed[4]	Return on capital employed[5]	Percentage of return on capital employed	Manpower
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
WORKING GOVERNMENT COMPANIES													
AGRICULTURE AND ALLIED													
1	Forest Development Corporation of Maharashtra Limited	2015-16	2016-17	322.88	-	592.62	144.47	65.68	(10.33)	915.50	65.68	7.17	1,173
2	Maharashtra Agro Industries Development Corporation Limited	2015-16	2017-18	5.50	28.88	173.82	1,165.12	20.11	(0.32)	208.20	21.26	10.21	499
3	Maharashtra Insecticides Limited	2015-16	2017-18	1.00	-	10.31	14.52	0.20	-	11.31	0.20	1.77	49
4	The Maharashtra State Farming Corporation Limited	2015-16	2016-17	2.75	-	(234.88)	14.15	0.93	(0.03)	(232.13)	0.93	Σ	226
5	Maharashtra State Seeds Corporation Limited	2016-17	2017-18	4.18	5.00	277.23	720.08	70.19	-	286.41	70.54	24.63	576
6	Punyashloka Ahilyadevi Maharashtra Mendi Va Sheli Vikas Mahamandal Limited	2014-15	2017-18	5.97	-	0.46	29.50	0.99	-	6.43	1.14	17.73	179
7	Maharashtra Fisheries Development Corporation Limited	2013-14	2017-18	4.04	3.87	(2.85)	12.61	1.35	-	5.06	1.49	29.45	37
Sector Wise Total				**346.32**	**37.75**	**816.71**	**2,100.45**	**159.45**	**(10.68)**	**1,200.78**	**161.24**	**13.43**	**2,739**
FINANCE													
8	Annasaheb Patil Arthik Magas Vikas Mahamandal Maryadit ϕ	2010-11	2012-13	50.00	-	8.85	3.43	2.37	-	59.10	2.37	4.01	2
9	Kolhapur Chitranagri Mahamandal Limited ϕ	1998-99	2013-14	2.89	-	(1.61)	0.17	(0.14)	-	1.41	(0.14)	Σ	-
10	Sahitya Ratna Lokshahir Annabhau Sathe Development Corporation Limited ϕ	2009-10	2014-15	118.35	25.94	(36.60)	1.55	2.19	(1.23)	107.69	2.92	2.71	202
11	Maharashtra Co-operative Development Corporation Limited ϕ	2005-06	2008-09	6.47	-	(1.90)	17.26	0.50	(2.95)	2.10	14.65	697.62	-
12	Maharashtra Film, Stage and Cultural Development Corporation Limited	2016-17	2017-18	12.30	0.56	124.29	57.29	29.35	-	137.15	29.35	21.40	105
13	Maharashtra Patbandhare Vittiya Company Limited (•)ϕ	2011-12	2016-17	0.06	690.13	(0.01)	-	-	-	690.18	82.66	11.98	-
14	Maharashtra Rajya Itar Magas Vargiya Vitta Ani Vikas Mahamandal Limited ϕ	2014-15	2016-17	85.46	37.18	70.78	7.61	6.58	(0.48)	193.42	9.56	4.94	68

Sl. No.	Sector / Name of the company	Period of accounts	Year in which accounts finalised	Paid-up capital[1]	Loans outstanding at the end of year[2]	Accumulated profit(+)/ loss(-)	Turnover	Net profit(+)/ loss(-)	Net impact of Audit comments[3]	Capital employed[4]	Return on capital employed[5]	Percentage of return on capital employed	Manpower
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
15	Maharashtra Small Scale Industries Development Corporation Limited	2014-15	2017-18	14.50	1.95	39.36	80.12	2.92	(38.53)	55.81	2.92	5.23	81
16	Maharashtra State Handicapped Finance and Development Corporation Limited ф	2010-11	2014-15	14.23	36.41	3.64	1.21	(0.11)	-	54.28	0.80	1.47	7
17	Maharashtra State Handlooms Corporation Limited	2015-16	2016-17	89.90	43.67	(128.71)	7.07	(4.07)	-	4.86	(1.48)	Σ	8
18	Maharashtra Vikrikar Rokhe Pradhikaran Limited (•)	2015-16	2016-17	0.05	-	0.40	-	-	-	0.45	0.65	144.44	-
19	Mahatma Phule Backward Class Development Corporation Limited ф	2013-14	2016-17	597.08	177.94	(9.06)	12.37	48.98	-	765.96	53.11	6.93	198
20	Maulana Azad Alpasankyak Arthik Vikas Mahamandal Limited	2011-12	2017-18	177.50	28.22	21.97	8.46	8.27	0.57	227.69	9.00	3.95	5
21	Sant Rohidas Leather Industries and Charmakar Development Corporation Limited ф	2012-13	2015-16	221.21	19.02	0.88	12.38	5.15	-	241.11	6.37	2.64	82
22	Shabari Adivasi Vitta Va Vikas Mahamandal Maryadit	2012-13	2017-18	67.25	29.40	10.36	0.48	6.88	(0.03)	107.01	7.91	7.39	17
23	Shamrao Peje Kokan Itar Magasvarg Aarthik Vikas Mahamandal Limited ф	2014-15	2016-17	15.00	1.06	2.14	0.13	1.28	-	18.20	1.35	7.42	11
24	Vasantrao Naik Vimukta Jatis & Nomadic Tribes Development Corporation Limited	2013-14	2016-17	169.01	26.54	(30.70)	6.56	6.25	(5.15)	164.85	7.04	4.27	51
Sector Wise Total				**1,641.26**	**1,118.02**	**74.08**	**216.09**	**116.40**	**(47.80)**	**2,831.27**	**229.04**	**8.09**	**837**
INFRASTRUCTURE													
25	Aurangabad Industrial Township Limited	2015-16	2016-17	1,229.52	-	23.53	-	37.78	-	1,253.05	37.78	3.02	2
26	City and Industrial Development Corporation of Maharashtra Limited	2015-16	2017-18	3.95	10.26	2.24	0.05	0.05	-	16.45	0.05	0.30	1,497
27	Development Corporation of Konkan Limited	2016-17	2017-18	8.81	5.92	(15.38)	0.46	(0.34)	(8.20)	(0.65)	(0.34)	Σ	4
28	Maharashtra Airport Development Company Limited	2015-16	2017-18	17.05	186.15	20.94	39.66	(37.55)	112.43	224.14	(37.55)	Σ	27
29	Maharashtra Satara Kagal Infrastructure Limited ^	FAA											
30	Maharashtra State Police Housing and Welfare Corporation Limited	2015-16	2016-17	7.96	-	0.97	6.06	0.19	-	8.93	0.33	3.70	21
31	Maharashtra State Road Development Corporation Limited	2014-15	2016-17	773.56	1,885.85	(3,409.02)	625.89	(111.82)	6.17	(749.61)	193.74	Σ	96
32	Maharashtra Urban Infrastructure Development Company Limited	2015-16	2017-18	0.49	-	5.70	1.33	1.41	-	6.19	1.41	22.78	-

Sl. No.	Sector / Name of the company	Period of accounts	Year in which accounts finalised	Paid-up capital[1]	Loans outstanding at the end of year[2]	Accumulated profit(+)/ loss(-)	Turnover	Net profit(+)/ loss(-)	Net impact of Audit comments[3]	Capital employed[4]	Return on capital employed[5]	Percentage of return on capital employed	Manpower
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
33	Maharashtra Urban Infrastructure Fund Trustee Company Limited	2015-16	2017-18	0.10	-	0.01	-	-	-	0.11	-	Σ	-
34	Mihan India Limited	2015-16	2016-17	20.00	-	(56.92)	41.22	(13.92)	-	(36.92)	(13.88)	Σ	14
35	Shivshahi Punarvasan Prakalp Limited ф	2014-15	2016-17	115.00	-	221.70	2.75	27.78	-	336.70	27.78	8.25	-
36	Western Maharashtra Development Corporation Limited	2016-17	2017-18	3.06	26.51	18.16	1.44	1.97	-	47.73	2.40	5.03	50
Sector Wise Total				**2,179.50**	**2,114.69**	**(3,188.07)**	**718.86**	**(94.45)**	**110.40**	**1,106.12**	**211.72**	**19.14**	**1,711**
MANUFACTURING													
37	Haffkine Ajintha Pharmaceuticals Limited	2016-17	2017-18	0.18	16.11	(13.07)	1.05	(3.04)	-	3.22	(3.04)	Σ	33
38	Haffkine Bio-Pharmaceutical Corporation Limited	2015-16	2017-18	8.71	4.70	135.40	234.82	10.10	(9.79)	148.81	10.14	6.81	502
39	Mahaguj Collieries Limited	2016-17	2017-18	0.05	56.44	(2.01)	-	(0.87)	-	54.48	(0.87)	Σ	5
40	Maharashtra Petrochemicals Corporation Limited	2015-16	2016-17	8.96	-	12.25	-	0.85	-	21.21	0.85	4.01	5
41	Maharashtra State Mining Corporation Limited	2015-16	2016-17	2.07	4.57	42.07	0.91	7.47	4.99	48.71	7.47	15.34	33
42	Maharashtra State Powerlooms Corporation Limited	2014-15	2016-17	12.77	-	(11.93)	16.95	(0.72)	(2.99)	0.84	(0.14)	Σ	19
43	Maha Tamil Collieries Limited	2015-16	2016-17	0.05	-	4.61	-	2.29	-	4.66	2.29	49.14	5
44	MSMC Adkoli Natural Resources Limited	2015-16	2017-18	0.01	3.25	-	-	-	-	3.26	-	Σ	-
45	MSMC Warora Collieries Limited ф	2010-11	2013-14	0.01	2.96	-	-	-	-	2.97	-	Ψ	-
Sector Wise Total				**32.81**	**88.03**	**167.32**	**253.73**	**16.08**	**(7.79)**	**288.16**	**16.70**	**5.80**	**602**
POWER													
46	Aurangabad Power Company Limited	2015-16	2016-17	0.05	-	0.02	-	0.01	-	0.07	0.01	14.29	-
47	Dhopave Coastal Power Limited	2016-17	2017-18	0.05	-	(8.30)	-	-	-	(8.25)	-	Σ	-
48	Mahagenco Ash Management Services Limited	2015-16	2016-17	0.05	0.13	(0.10)	-	0.01	-	0.08	0.01	12.50	1
49	M.S.E.B. Holding Company Limited	2015-16	2016-17	87,392.75	-	(1,533.52)	-	2,570.46	-	85,859.23	2,570.46	2.99	9
50	Maharashtra Power Development Corporation Limited	2016-17	2017-18	0.45	1,017.82	(1,013.04)	-	(0.15)	(2.19)	5.23	(0.15)	Σ	-
51	Maharashtra State Electricity Distribution Company Limited	2015-16	2016-17	46,496.63	13,429.88	(22,279.76)	53,707.37	(15,021.09)	(6,482.30)	37,646.75	(11,972.02)	Σ	76,928
52	Maharashtra State Electricity Transmission Company Limited	2015-16	2016-17	8,984.97	6,126.70	1,179.20	3,314.85	(4,082.08)	10.95	16,290.87	(3,423.96)	Σ	10,288
53	Maharashtra State Power Generation Company Limited	2016-17	2017-18	25,247.13	24,497.95	(7,072.38)	18,163.95	(929.71)	(4,551.00)	42,672.70	1,976.90	4.63	11,882
Sector Wise Total				**1,68,122.08**	**45,072.48**	**(30,727.88)**	**75,186.17**	**(17,462.55)**	**(11,024.54)**	**1,82,466.68**	**(10,848.75)**	**Σ**	**99,108**

Sl. No.	Sector / Name of the company	Period of accounts	Year in which accounts finalised	Paid-up capital[1]	Loans outstanding at the end of year[2]	Accumulated profit(+)/ loss(-)	Turnover	Net profit(+)/ loss(-)	Net impact of Audit comments[3]	Capital employed[4]	Return on capital employed[5]	Percentage of return on capital employed	Manpower
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
SERVICE													
54	Maharashtra Tourism Development Corporation Limited ф	2012-13	2016-17	15.39	9.40	25.26	26.75	3.70	(7.68)	50.05	3.86	7.71	223
55	Mahatourism Corporation Limited	2016-17	2017-18	0.05	-	(0.06)	0.01	-	-	(0.01)	-	Σ	-
56	Nagpur Mass Transport Company Private Limited	2015-16	2016-17	2.00	-	0.23	-	0.15	-	2.23	0.15	6.73	-
Sector Wise Total				**17.44**	**9.40**	**25.43**	**26.76**	**3.85**	**(7.68)**	**52.27**	**4.01**	**7.67**	**223**
MISCELLANEOUS													
57	Krupanidhi Limited ♦	2014-15	2016-17	0.01	-	-	-	-	-	0.01	-	Σ	3
58	Maharashtra Ex-Servicemen Corporation Limited	2014-15	2017-18	14.95	-	64.35	202.03	9.10	-	79.30	9.37	11.82	-
59	Maharashtra Information Technology Corporation Limited ^	FAA											
60	Mahila Arthik Vikas Mahamandal	2013-14	2016-17	2.74	-	1.93	-	0.11	(0.23)	4.67	0.11	2.36	75
61	Nagpur Flying Club Private Limited	2015-16	2017-18	0.85	-	1.69	0.28	0.39	-	2.54	0.39	15.35	10
62	Village Social Transformation Foundation^	FAA											
Sector Wise Total				**18.55**	**-**	**67.97**	**202.31**	**9.60**	**(0.23)**	**86.52**	**9.87**	**11.41**	**88**
Total A (All sector wise working Government companies)				**1,72,357.96**	**48,440.37**	**(32,764.44)**	**78,704.37**	**(17,251.62)**	**(10,988.32)**	**1,88,031.80**	**(10,216.17)**	**Σ**	**1,05,308**
STATUTORY CORPORATIONS													
AGRICULTURE AND ALLIED													
1	Maharashtra State Warehousing Corporation	2015-16	2016-17	8.71	75.96	-	302.45	32.49	1.30	84.67	38.10	45.00	662
Sector Wise Total				**8.71**	**75.96**	**-**	**302.45**	**32.49**	**1.30**	**84.67**	**38.10**	**45.00**	**662**
FINANCE													
2	Maharashtra State Financial Corporation ф	2014-15	2015-16	62.64	350.17	(687.90)	9.29	(13.78)	102.75	(224.76)	(13.78)	Σ	27
Sector Wise Total				**62.64**	**350.17**	**(687.90)**	**9.29**	**(13.78)**	**102.75**	**(224.76)**	**(13.78)**	**Σ**	**27**
INFRASTRUCTURE													
3	Maharashtra Industrial Development Corporation ф	2014-15	2015-16	-	-	38.22	233.86	0.25	-	38.09	7.83	20.56	2,955
Sector Wise Total				**-**	**-**	**38.22**	**233.86**	**0.25**	**-**	**38.09**	**7.83**	**20.56**	**2,955**
SERVICE													
4	Maharashtra State Road Transport Corporation	2015-16	2017-18	3,202.99	200.00	(1,807.23)	7,069.28	(121.88)	(39.21)	1,457.70	(120.42)	Σ	1,03,085
Sector Wise Total				**3,202.99**	**200.00**	**(1,807.23)**	**7,069.28**	**(121.88)**	(39.21)	**1,457.70**	**(120.42)**	**Σ**	**1,03,085**
Total B (All sector wise working Statutory corporations)				**3,274.34**	**626.13**	**(2,456.91)**	**7,614.88**	**(102.92)**	**64.84**	**1,355.70**	**(88.27)**	**Σ**	**1,06,729**
Grand Total (A+B)				**1,75,632.30**	**49,066.50**	**(35,221.35)**	**86,319.25**	**(17,354.54)**	**(10,923.48)**	**1,89,387.50**	**(10,304.44)**	**Σ**	**2,12,037**

Sl. No.	Sector / Name of the company	Period of accounts	Year in which accounts finalised	Paid-up capital[1]	Loans outstanding at the end of year[2]	Accumulated profit(+)/ loss(-)	Turnover	Net profit(+)/ loss(-)	Net impact of Audit comments[3]	Capital employed[4]	Return on capital employed[5]	Percentage of return on capital employed	Manpower
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
NON-WORKING GOVERNMENT COMPANIES													
AGRICULTURE AND ALLIED													
1	Dairy Development Corporation of Marathwada Limited	2015-16	2017-18	0.38	-	(3.09)	-	-	-	(2.71)	-	Σ	-
2	Ellora Milk Products Limited	2015-16	2017-18	0.05	1.35	(1.53)	-	-	-	(0.13)	-	Σ	-
3	Irrigation Development Corporation of Maharashtra Limited ɸ	2010-11	2010-11	19.93	-	(19.93)	-	-	-	-	-	Ψ	-
4	MAFCO Limited	2015-16	2016-17	5.04	-	2.35	-	0.60	-	7.39	0.60	8.12	-
5	Parbhani Krishi Go-samvardhan Limited	2015-16	2017-18	0.19	-	(1.04)	-	(0.01)	-	(0.85)	(0.01)	Σ	-
6	Vidarbha Quality Seeds Limited	2016-17	2017-18	0.10	-	(0.40)	-	-	-	(0.30)	-	Σ	-
Sector Wise Total				**25.69**	**1.35**	**(23.64)**	**-**	**0.59**		**3.40**	**0.59**	**17.22**	**-**
INFRASTRUCTURE													
7	Development Corporation of Vidarbha Limited ɸ	2015-16	2016-17	7.17	8.37	(14.51)	-	(0.06)	-	1.03	(0.06)	Σ	-
8	The Maharashtra Land Development Corporation Limited ɸ	2013-14	2014-15	4.00	46.89	(20.00)	-	-	-	30.89	-	Ψ	-
9	Maharashtra Industrial Gas Transmission Company Limited ɸ !	FAA							-				
10	Maharashtra Rural Development Corporation Limited ɸ	2012-13	2014-15	0.05	-	(0.05)	-	-	-	-	-	Ψ	-
11	Maharashtra State Housing Corporation Limited	2015-16	2016-17	0.01	-	0.53	-	0.02	-	0.54	0.02	4.07	-
12	Marathwada Development Corporation Limited	2015-16	2017-18	10.17	48.18	(12.23)	-	0.26	-	46.12	0.26	0.56	-
Sector Wise Total				**21.40**	**103.44**	**(46.26)**	**-**	**0.22**	**-**	**78.58**	**0.22**	**0.28**	**-**
MANUFACTURING													
13	Godavari Garments Limited	2015-16	2017-18	0.24	7.73	(8.17)	-	-	-	(0.20)	-	Σ	-
14	Kinwat Roofing Tiles Limited	2015-16	2017-18	0.19	0.97	(1.21)	-	-	-	(0.05)	-	Σ	-
15	Maharashtra Electronics Corporation Limited	2015-16	2016-17	9.69	197.70	(335.36)	-	(20.21)	-	(127.97)	(0.09)	Σ	-
16	Maharashtra State Textile Corporation Limited	2016-17	2017-18	236.16	-	(1,045.17)	-	(41.14)	0.07	(809.01)	(1.87)	Σ	-
17	Marathwada Ceramic Complex Limited	2015-16	2017-18	0.68	6.60	(7.23)	-	-	-	0.05	-	Σ	-
18	Sahyadri Glass Works Limited ɸ	1993-94	1995-96	0.45	-	(9.22)	-	(0.41)	-	(2.48)	(0.37)	Σ	-

Sl. No.	Sector / Name of the company	Period of accounts	Year in which accounts finalised	Paid-up capital[1]	Loans outstanding at the end of year[2]	Accumulated profit(+)/ loss(-)	Turnover	Net profit(+)/ loss(-)	Net impact of Audit comments[3]	Capital employed[4]	Return on capital employed[5]	Percentage of return on capital employed	Manpower
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
19	The Gondwana Paints and Minerals Limited	2016-17	2017-18	0.10	-	(1.43)	-	-	-	(1.33)	-	Σ	-
20	The Pratap Spinning, Weaving and Manufacturing Company Limited	2016-17	2017-18	23.17	-	(63.89)	-	(0.01)	-	(40.72)	(0.01)	Σ	-
Sector Wise Total				**270.68**	**213.00**	**(1,471.68)**	**-**	**(61.77)**	**0.07**	**(981.71)**	**(2.34)**	Σ	-
MISCELLANEOUS													
21	Leather Industries Corporation of Marathwada Limited	2015-16	2017-18	0.64	6.13	(6.71)	-	-	-	0.06	-	Σ	-
22	Vidarbha Tanneries Limited	2016-17	2017-18	0.10	1.03	(1.18)	-	-	-	(0.05)	-	Σ	-
Sector Wise Total				**0.74**	**7.16**	**(7.89)**	**-**	**-**	**-**	**0.01**	**-**	Σ	-
Total C (All sector wise Non-working Government companies)				**318.51**	**324.95**	**(1,549.47)**	**-**	**(60.96)**	**0.07**	**(899.72)**	**(1.53)**	Σ	-
Grand Total (A+B+C)				**1,75,950.81**	**49,391.45**	**(36,770.82)**	**86,319.25**	**(17,415.50)**	**(10,923.41)**	**1,88,487.78**	**(10,305.97)**	Σ	**2,12,037**

(This Report deals with the results of audit of 84 Government Companies and four Statutory Corporations under the audit jurisdiction of Accountant General (Audit)-III, Maharashtra)

1 Paid up capital includes share application money.
2 Loans outstanding at the end of the year represents long term loans from all sources.
3 Impact of accounts comments include the net impact of comments of Statutory Auditors and CAG and is denoted by (+) increase in profit/decrease in losses (-) decrease in profit/increase in losses.
4 Capital employed represents Shareholders funds (+) Long term Borrowings.
5 Return on capital employed has been worked out by adding net profit and interest charged to profit and loss account.
Σ Percentage of Return on Capital Employed was Negative.
ɸ Did not finalise even a single account.
(•) Expenditure in respect of companies at Sl.No.A-13 and A-18 is recouped from Government hence the figure under profit/loss is 'Nil'.
Ψ Return on capital employed not applicable.
♦ Deficit is recoverable from share holders hence there is no loss/accumulated loss (Sl.No. A-57).
^New Company Sl.No. A-29, A-59 and A-62.
! Company has not started commercial activity and has not prepared profit and loss account.

Annexure 3
Statement showing State Public Sector Undertakings whose net worth eroded
(*Referred to in paragraph 1.18*)

(₹ in crore)

Sl. No.	Name of the Public Sector Undertakings	Share capital of the State Government	Total Paid-up capital	Reserves and surplus	Net worth
1	Maharashtra State Handlooms Corporation Limited	88.71	89.90	(128.71)	(38.81)
2	Development Corporation of Konkan Limited	8.81	8.81	(14.94)	(6.13)
3	Maharashtra State Road Development Corporation Limited	773.56	773.56	(868.59)	(95.03)
4	Maharashtra State Financial Corporation	34.28	62.64	(641.68)	(579.04)
5	Development Corporation of Vidarbha Limited	7.17	7.17	(14.51)	(7.34)
6	Maharashtra Electronics Corporation Limited	9.69	9.69	(335.36)	(325.67)
7	Maharashtra State Textile Corporation Limited	236.16	236.16	(1,038.30)	(802.14)
	Total	**1,158.38**	**1,187.93**	**(3,042.09)**	**(1,854.16)**

(Source: Compilation from data furnished by companies)

Annexure 4
Thermal capacity additions achieved by the Maharashtra State Power Generation Company Limited (MSPGCL) during XI FYP and XII FYP
(Referred to in paragraph 2.1)

A) During XI FYP (2007-08 to 2011-12)

Sl. No.	Name of the project	Unit no.	Installed capacity (MW)	Commercial operation date
1	Parli	6	250	01 November 2007
		7	250	31 July 2010
2	Paras	3	250	31 March 2008
		4	250	31 August 2010
	Total (A)		**1,000**	

B) During XII FYP (2012-13 to 2016-17)

Sl. No.	Name of the project	Unit no.	Installed capacity (MW)	Commercial operation date
1	Khaperkheda	5	500	16 April 2012
2	Bhusawal	4	500	16 November 2012
		5	500	03 January 2014
3	Koradi	8	660	16 December 2015
		9	660	22 November 2016
		10	660	17 January 2017
4	Chandrapur	8	500	04 June 2016
		9	500	24 November 2016
5	Parli	8	250	19 November 2016
	Total (B)		**4,730**	

(Source: Data furnished by the Company)

Annexure 5
Statement showing the financial position of the MSPGCL during the period from 2012-13 to 2016-17
(Referred to in paragraph 2.3)

(₹ in crore)

Particular	2012-13	2013-14	2014-15	2015-16	2016-17
Equity and Liabilities					
Shareholders' funds	8,597.47	10,017.87	11,202.54	18,292.58	18,174.75
Non-current liabilities	22,933.76	26,648.99	29,135.98	26,208.57	26,522.88
Current liabilities	14,472.46	13,376.89	14,346.36	17,921.20	17,168.81
Total	**46,003.69**	**50,043.75**	**54,684.88**	**62,422.35**	**61,866.44**
Assets					
Non-current assets	32,566.43	36,898.66	39,747.18	45,495.45	48,267.18
Current assets	13,437.26	13,145.09	14,937.70	16,926.90	13,599.26
Total	**46,003.69**	**50,043.75**	**54,684.88**	**62,422.35**	**61,866.44**

(Source: Annual financial statements of the Company)

Annexure 6
Statement showing reasons for delay in five projects completed by MSPGCL during 2012-17
(Referred to in paragraph 2.12)

Sl. No.	Project (Delay in months)	Reasons for delay
1	Khaperkheda (20)	➢ Non-sequential and delayed supplies, delay in finalisation of erection agencies, defective material supply and inadequate/inexperienced erection supervisory staff of BTG/BoP contractor.
2	Bhusawal (26)	➢ Delay due to defective DPR which did not provide for construction of railway siding for coal handling. ➢ Delay in supply of material/equipment by BTG and BoP contractor, delay in finalisation and mobilisation of erection agencies and deployment of insufficient manpower by BTG contractor. ➢ There was delay of 373 days (unit 4) and 253 days (unit 5) of BTG agency in providing engineering inputs for Fuel Handling Plant and Cooling Water System (CWS) to the BoP contractor. ➢ Failure of some of the equipment and auxiliary during erection, commissioning/after trial run causing rework. ➢ Inadequate and inferior quality of coal causing delay in the trial operation/Commercial Operation Date (COD).
3	Chandrapur (40-49)	➢ Delay in COD due to non-renewal of Environment Clearance. ➢ Delay in finalisation of BoP contract. ➢ Delayed supplies, inadequate/inexperienced erection supervisory staff of BTG contractor. ➢ Delay in supply of equipment/erection by BoP contractor and poor performance of BoP vendor. ➢ Financial crisis of BoP contractor.
4	Parli (49)	➢ Delay in finalisation of BoP contract. ➢ Delay on account of BTG contractor for reasons like delay in site mobilisation and appointment of erection agencies, frequent changes of agencies, inadequate manpower, delay in supply of materials/ equipment and erection. ➢ Delay on account of BoP contractor for reasons like delay in supply of materials/equipment and erection of various systems as well as deployment of inadequate manpower. ➢ Payment issues between BoP contractor and his consortium partner/ agencies. ➢ Water shortage due to severe drought in the region.
5	Koradi (22-24)	➢ Delay in CoD due to delay in obtaining Consent to Operate from Maharashtra Pollution Control Board as the Company failed to comply with environmental condition regarding installation of Flue Gas Desulphurisation. ➢ Delay in finalisation of BoP contract. ➢ Delay in availability (797 to 948 days) of Natural Draft Cooling Tower to BTG contractor for all three units, construction of which was under the scope of BoP contractor. ➢ Delay in commissioning of piping for CWS of three units by BTG contractor (903 to 1,176 days). ➢ Delay of the Company in handing over of fronts for construction of Ash Handling Plant (385 to 1,123 days) and Coal Handling Plant (571 to 573 days) to the BoP contractors. ➢ Delay in supply of materials/equipment and erection by BoP and BTG contractor. ➢ Non-deployment of adequate skilled manpower by BoP and BTG contractor. ➢ Financial crisis of BoP contractor.

(Source: Information furnished by the Company/Third party delay analysis reports)

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