



**Report of the
Comptroller and Auditor General of India
on
Public Sector Undertakings
for the year ended 31 March 2016**



Government of Rajasthan
Report No. 5 of the year 2016

Presented to the Legislature on 28 March 2017

**REPORT OF THE
COMPTROLLER AND AUDITOR GENERAL
OF INDIA**

**ON
PUBLIC SECTOR UNDERTAKINGS**

FOR THE YEAR ENDED 31 MARCH 2016

**GOVERNMENT OF RAJASTHAN
REPORT NO. 5 OF THE YEAR 2016**

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Preface

This Report deals with the results of audit of Government Companies and Statutory Corporations and has been prepared for submission to the Government of Rajasthan under Section 19A of the Comptroller and Auditor General's (Duties, Powers and Conditions of Services) Act, 1971, as amended from time to time.

2. Audit of the accounts of Government Companies is conducted by the Comptroller and Auditor General of India under the provisions of Section 139 and 143 of the Companies Act, 2013.

3. The Comptroller and Auditor General of India is sole auditor in respect of Rajasthan State Road Transport Corporation which is a Statutory Corporation. In respect of Rajasthan State Warehousing Corporation, he has the right to conduct the audit of its accounts in addition to the audit conducted by the Chartered Accountants appointed by the State Government in consultation with Comptroller and Auditor General of India. As per the State Financial Corporation's (Amendment) Act 2000, Comptroller and Auditor General of India has the right to conduct the audit of the accounts of Rajasthan Financial Corporation in addition to the audit conducted by the Chartered Accountants appointed by the Corporation out of the panel of auditors approved by the Reserve Bank of India. The Audit Reports on annual accounts of all these Corporations are forwarded separately to the State Government.

4. The cases mentioned in this Report are those which came to notice in the course of audit during the year 2015-2016 as well as those which came to notice in earlier years but were not dealt with in the previous Reports. Matters relating to the period after 31 March 2016 have also been included, wherever necessary.

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

OVERVIEW

Overview

1. Functioning of Public Sector Undertakings

Audit of Government Companies is governed by Sections 139 and 143 of the Companies Act, 2013. The accounts of Government Companies are audited by the Statutory Auditors appointed by the Comptroller and Auditor General of India (CAG). These accounts are also subject to supplementary audit conducted by the CAG. The Audit of Statutory Corporations is governed by their respective legislations.

As on 31 March 2016, Rajasthan had 54 Public Sector Undertakings (PSUs) consisting of 48 working Companies, three working Statutory Corporations and three non-working PSUs (all Companies), which employed around one lakh employees. The working PSUs registered a turnover of ₹ 54834.65 crore during 2015-16 as per their latest finalised accounts. This turnover was equal to 8.13 *per cent* of the State Gross Domestic Product indicating an important role played by the State PSUs in the economy of the State.

Stake of Government of Rajasthan

As on 31 March 2016, the investment (Capital and long term loans) in 54 PSUs was ₹ 124810.19 crore. It grew by over 108.98 *per cent* from ₹ 59724.03 crore in 2011-12. The power sector received 92.06 *per cent* of total investment made during the period from 2011-12 to 2015-16. The State Government contributed ₹ 50655.12 crore towards equity, loans and grants/subsidies during 2015-16.

Performance of PSUs

During the year 2015-16, out of 51 working PSUs, 23 PSUs earned profit of ₹ 843.83 crore and 19 PSUs incurred loss of ₹ 13217.71 crore. Five PSUs had no profit or loss for the year 2015-16 while two PSUs did not submit annual accounts since inception and accounts of two PSUs were not due. Further, out of 51 PSUs, 18 PSUs incorporated during 2006-07 to 2015-16 did not commence their business activities till 2015-16. The purpose of incorporation of these PSUs was, therefore, defeated. The Government should take appropriate action to commence business activities of these PSUs.

The major contributors to profit were Rajasthan State Industrial Development and Investment Corporation Limited (₹ 349.58 crore) and Rajasthan State Mines and Minerals Limited (₹ 200.33 crore). The heavy losses were incurred by electricity companies, *i.e.* Ajmer Vidyut Vitran Nigam Limited (₹ 3504.00 crore), Jaipur Vidyut Vitran Nigam Limited (₹ 4462.91 crore) and Jodhpur Vidyut Vitran Nigam Limited (₹ 3273.87 crore).

Quality of accounts

The quality of accounts of PSUs needs improvement. Out of 55 accounts finalised during October 2015 to 30 September 2016, the Statutory Auditors gave qualified certificates on 22 accounts and adverse certificate on one account. There were 47 instances of non-compliance with Accounting Standards by the PSUs.

Arrears in accounts and winding up

Twelve working PSUs had arrears of 20 accounts as on 30 September 2016. Among non-working PSUs, two PSUs had four accounts in arrears. The Government may take a decision regarding winding up of the non-working PSUs.

Coverage of this Report

This Report contains 10 compliance audit paragraphs and two Performance Audits *i.e.* 'Performance Audit on Kalisindh Thermal Power Project of Rajasthan Rajya Vidyut Utpadan Nigam Limited' and 'Performance Audit (IT) on Computerisation of Ticketing Activities by Rajasthan State Road Transport Corporation' involving financial effect of ₹ 584.94 crore.

2. Performance Audit relating to Government Companies

Performance Audit on Kalisindh Thermal Power Project of Rajasthan Rajya Vidyut Utpadan Nigam Limited

The Government of Rajasthan (State Government) included setting up of Kalisindh Thermal (coal based) Power Project (KaTPP) in its XIth five year plan (2007-12) and accorded (June 2007) administrative and financial approval of ₹ 4600 crore for setting up two units (500 MW each) of KaTPP. The proposed capacity was enhanced (June 2007) to 1200 MW (2 X 600 MW) to ensure wider participation of the international bidders. The Performance Audit covers all the activities of KaTPP since preparation of Detailed Project Report (DPR) by TCE Consulting Engineers Limited till commissioning of the plant including operational performance upto 2015-16.

Setting up of KaTPP

The DPR envisaged (October 2007) the cost of setting up of the plant at ₹ 5495.07 crore. Rajasthan Rajya Vidyut Utpadan Nigam Limited (Company) revised the estimated cost to ₹ 7723.70 crore (May 2011) and further revised (March 2014) it to ₹ 9479.51 crore which was approved (August 2011 and August 2014) by the State Government. Both the Units of KaTPP were commissioned at a total cost of ₹ 9479.51 crore. The actual cost of setting up the plant exceeded the estimated cost (₹ 4600 crore) by 106.08 *per cent*. The State Government provided equity assistance (20 *per cent*) of ₹ 1895.90 crore and remaining funds (80 *per cent*) of ₹ 7583.61 crore were arranged by the Company through borrowings from Power Finance Corporation (PFC)/commercial banks.

The cost overrun as compared to the estimated cost in DPR was attributed to increase in cost of 'Engineering, Procurement and Commissioning' (EPC) contract (₹ 1852 crore); water storage system (₹ 764.05 crore); construction of Railway siding (₹ 153.85 crore upto March 2015 and work was in progress as on March 2016); and interest and finance cost (₹ 1881 crore) during the period of construction. Besides, various associated works like construction of store shed/hostel; fire tender and dozer; third party inspection were not envisaged in DPR and contributed to cost overrun.

The work orders for setting up the project were awarded (October 2008) to BGR Energy Systems Limited, Chennai (BGR Energy) at a negotiated price of ₹ 4900.06 crore. The contract price included off-shore supplies of US \$ 405 million and local (Indian) supplies/services of ₹ 3296.665 crore.

The contractual commissioning period of Unit-I and Unit-II was October 2011 and January 2012 respectively. The Units were commissioned after delays of 31 months and 42 months on 7 May 2014 and 25 July 2015 respectively. Delay in completion of the project was attributed to delay (seven months) in obtaining environmental clearance and non-adherence to the time schedule in completion of various major activities by BGR Energy. The major activities viz. boiler light up, ash handling plant, coal handling plant and cooling tower, etc. were completed after delays ranging between 18 and 41 months in case of Unit I and 28 and 53 months in case of Unit-II. The work order for supply of the generator transformers was placed (February 2012) after elapse of the contractual date of commissioning of both the Units. Further, BGR Energy observed delays of more than two years in awarding work orders to its sub-vendors for electrical and mechanical works, after award of EPC contract. The sub-vendors delayed supply of material/completion of mechanical and civil works by more than two years. The Board discussed (March 2009 to May 2014) the issue of delay in completion of the project several times but deferred levy of Liquidated Damages six times between March 2009 and May 2014.

The contract price of BGR Energy was firm. The Company was required to make payments for off-shore supplies at a firm rate of ₹ 39.59 per US \$ and any exchange rate variation was to be borne by BGR Energy. The Company purchased one US \$ at a rate ranging between ₹ 44.32 to ₹ 66.88 and made payments in US \$ without recovering exchange rate variation of ₹ 295.29 crore. This also resulted into extra burden of ₹ 19.40 crore on the Company towards payment of taxes to the Central/State Government. Further, the Company extended undue financial benefit to BGR Energy by refunding labour cess of ₹ 48.21 crore in violation of the clauses of work order and notification (27 July 2009) issued by the State Government.

Civil works

The Water Resources Department (WRD) of the State Government agreed to share 60 *per cent* of the cost of construction of Dam on Kalisindh River but it did not incur any expenditure and the entire cost was borne by the Company. The Company released funds of ₹ 696.37 crore to WRD during 2007-16 but did not make any effort to recover the cost to be shared by the WRD. IRCON could not complete the construction of railway siding within the stipulated time period and the Company granted extension seven times (50 months) during February 2012 to October 2015 and made payments of ₹ 6.26 crore (upto March 2015) towards field supervision/establishment charges beyond the committed charges.

Operational efficiency of KaTPP

The KaTPP could not achieve the operational parameters fixed by Rajasthan Electricity Regulatory Commission in respect of Plant Load Factor; Station Heat Rate; consumption of oil; and auxiliary consumption. Non-achievement/adherence to the operational norms caused shortfall in generation

of 4217.86 MUs valuing ₹ 1744.06 crore; excess consumption of coal of 4.34 lakh MT valuing ₹ 177.34 crore; excess consumption of 22723 kilolitre oil (₹ 99.25 crore); and loss of 127.70 MUs valuing ₹ 51.67 crore during 2014-16. The plant availability norms (85 *per cent*) fixed by Central Electricity Authority were also not achieved. The Unit-I remained inoperative for 4431.45 hours (56.12 *per cent*) out of 7896 available operational hours due to forced outages during 2014-15.

Environmental issues

The Company did not establish (July 2016) environment management cell at KaTPP as per conditions of the environment clearance. The KaTPP failed to achieve stack emission parameters prescribed by Ministry of Environment and Forest, Government of India (GoI) in respect of particulate matter; Sulphur Dioxide; and Oxides of Nitrogen. Further, equipment to measure the air and noise pollution were also not installed.

Financial management

The Company defaulted in payment of interest/principal to the PFC and had to pay penal interest and interest thereon of ₹ 8.47 crore besides forgoing rebate of ₹ 18.15 crore towards timely payment of installments. Delay in commissioning of Unit-I by 31 months deprived the Company of a rebate of ₹ 35.40 crore. The Company did not make any effort to seek exemption from the State Government from payment of entry tax (₹ 22.74 crore) paid to BGR Energy. Further, KaTPP was eligible for availing fiscal benefits under Mega Power Project policy of the GoI but the Company never explored possibilities and was, therefore, deprived of fiscal benefits of ₹ 431.30 crore.

Audit recommendations

Audit recommendations mainly pertain to recovering LD and other excess payments made to BGR Energy as per tender terms/General Conditions of Contract; recovering cost of Dam to be shared by WRD including prorate charges; adhering to the environmental norms; and exploring possibilities to avail benefits under the policies of GoI and State Government.

3. Performance Audit relating to Statutory Corporations

Performance Audit (IT) on Computerisation of ticketing system by Rajasthan State Road Transport Corporation

Rajasthan State Road Transport Corporation (Corporation) outsourced (May 2011) the work of 'Online Reservation System' (ORS); integration of Electronic Ticket issuing Machines (ETIMs) with ORS; and preparation of Radio Frequency Identification (RFID) smart cards to Trimax IT Infrastructure and Services Limited, Mumbai (Service Provider). The Service Provider implemented the ORS in May 2011 but the integration of ETIMs with ORS was pending (August 2016).

The Performance Audit involved analysis of the electronic data of ORS; ETIMs and RFID smart cards pertaining to the period 2014-15 and 2015-16

(November 2015) and contractual performance of the Service Provider. The audit findings pertaining to ETIMs are based on eight selected depots out of 57 depots.

The audit findings mainly highlight deficiencies in project management and system design. The project management highlights deficiencies in planning and implementation; and project monitoring and evaluation. The system design deficiencies include non-integration of ETIMs with ETIM server; insufficient validation controls; and non-mapping of business rules. The project management and system design deficiencies had financial implication on the revenue of the Corporation. The financial issues relate to under recovery of fare; unauthorised concessions allowed to the passengers; and payments to the service provider in violation of the clauses of the work order/service level agreement.

Project Management

Planning and implementation

The Corporation did not prepare IT policy, IT security policy, password policy and policy for change control management. The IT cell of the Corporation had also not constituted a planning/steering committee with clear roles and responsibilities to monitor each functional area of the Integrated Transport Management System. Besides, the Corporation did not have a framework for IT policies and procedures during the development of ORS and preparation of RFID smart cards. The modifications made by the Service Provider in the database as regards change in routes; fare in the software; security of IT assets; *etc.* were not subject to any supervisory control. In absence of a password policy, the systems installed at booking windows accepted passwords of any length without combination of alpha numeric and special characters. There was no system in vogue to ensure change of password by the users after different time intervals in order to minimise the risk of unauthorised access.

Further, the Corporation did not have proper business continuity and disaster recovery plan because the primary data centre as well as the disaster recovery site for ETIM application was set up in the same seismic zone (depot level). The data of ETIMs would not be retrieved in case of any disaster at the depot level. The Corporation also issued 'Pilot Acceptance Test' and 'User Acceptance Test' certificates to the Service Provider without evaluation of the application software

Project Monitoring and Evaluation

The project monitoring and evaluation was deficient which led to release of payments to the Service Provider in violation of the clauses of agreement/service-level agreement and non-reconciliation of operating revenue.

System Design deficiencies and insufficient validation control

The system design deficiencies and insufficient validation control resulted in discrepancies in allowing concession to female and senior citizen passengers *viz.* allowing concession outside State; concession to ineligible senior citizens; Mahila concession to male passengers and free journey to female passengers

except Mahila divas and Raksha Bandhan. It also led to discrepancies in allowing concession to student and monthly pass passengers viz. allowing journey for more than once in a day; allowing free travel on Sunday and allowing journey on zero balance monthly passes without receipt of fare. Inadequate mapping of rules led to non-charging of fare at prevailing tariff; under recovery of fare in inter-state buses and non-recovery of IT fees/accidental compensation surcharge/toll tax/human resource surcharge on free journey tickets. The system design deficiency also resulted in non-recovery of reservation charges and non/under recovery of cancellation charges.

The software in violation of the business rules allowed allotment of same seat numbers to two passengers; journey to RFID card holders in higher class than the eligible class; 'Passenger Name Record' number with less than 18 digits; issue of more than one cancellation order against one ticket; journey on expired RFID cards and concession without valid RFID card; etc.

Audit Recommendations

Audit recommends the Corporation to formulate and implement a clear and comprehensive IT policy covering various aspects such as IT security policy; password management; etc.; set-up primary data centre and disaster recovery site for the data of ETIMs at different locations; build adequate input controls and validation checks to ensure correctness of input data and output results as per the business rules and needs of the Corporation; ensure mapping of business rules in accordance with the organization rules/policies, manuals, Government directions, etc; ensure functioning of General Packet Radio Service module for real time integration of the ticketing and financial data of ORS and ETIMs; make operating procedures of ETIMs simpler to increase operational efficiency and reduce input errors; and reconcile the IT data and accounting data to avoid any leakage of revenue.

4. Compliance Audit Observations

Compliance Audit observations included in this Report highlight deficiencies in the management of Public Sector Undertakings, which resulted in serious financial implications. The irregularities pointed out are broadly of the following nature.

Loss/extra expenditure/non-recovery of ₹ 21.73 crore due to non-compliance with rules, directives, procedures, terms and conditions of contract in six cases.

(Paragraphs 4.1, 4.2, 4.3, 4.7, 4.9 and 4.10)

Loss/extra expenditure/non-recovery of ₹ 9.37 crore due to non-safeguarding of financial interests of the organization in four cases.

(Paragraphs 4.4, 4.5, 4.6 and 4.8)

Gist of some important Audit observations is given below:

Jodhpur Vidyut Vitran Nigam Limited awarded work orders for the purpose of monthly meter reading and load survey through Common Meter Reading Instrument (CMRI)/Hand Held Terminal (HHT) but the contractors

carried out manual meter reading in majority (73.66 per cent) of cases instead of reading through CMRI/HHT. The Company made payments to the contractors at the rates prescribed for reading through CMRI/HHT in absence of adequate clauses in the work order for manual reading.

(Paragraph 4.1)

Rajasthan State Industrial Development and Investment Corporation Limited failed to prepare and implement an effective strategy to ensure mandatory installation of Rainwater Harvesting Structures (RWHSs) by the allottees in the industrial areas. The Company/Unit offices in violation of the decisions/directives of the Infrastructure Development Committee allowed change in constitution of units; change in land use; transfer of units; issued no-objection certificate; and treated the units under production as per the existing norms without ensuring installation of RWHSs. There were instances where the allottees had not installed RWHSs but the Unit offices certified installation of RWHSs by these units.

(Paragraph 4.3)

Rajasthan Rajya Vidyut Utpadan Nigam Limited adopted incorrect methodology for computation of recovery against excess wear rate of High Chrome grinding media balls which caused under recovery of compensation of ₹ 6.27 crore.

(Paragraph 4.5)

The approach walls of Road over Bridge on Hindaun-Gangapur city road constructed by **Rajasthan State Road Development and Construction Corporation Limited** collapsed due to lack of monitoring, poor quality of material, masonry and construction techniques. This caused wastage of public funds and an additional liability of ₹ 5.19 crore on the Company towards retrofitting work.

(Paragraph 4.9)

CHAPTER I

Functioning of Public Sector Undertakings

Chapter I

Functioning of Public Sector Undertakings

Introduction

1.1 The Public Sector Undertakings (PSUs) consist of State Government Companies and Statutory Corporations. The State PSUs are established to carry out activities of commercial nature keeping in view the welfare of people and occupy an important place in the State economy. As on 31 March 2016, there were 54 PSUs including three Statutory Corporations and 51 Government Companies. None of these Government Companies was listed on the stock exchange. During the year 2015-16, six¹ PSUs were incorporated while two PSUs i.e. Rajasthan Veterinary Services Corporation Limited and Rajasthan State Refinery Limited were wound up. Rajasthan Avas Vikas and Infrastructure Limited was merged (January 2016) with Rajasthan Urban Drinking Water Sewerage and Infrastructure Corporation Limited. The details of the PSUs in Rajasthan as on 31 March 2016 are given below:

Table 1.1: Total number of PSUs as on 31 March 2016

Type of PSUs	Working PSUs	Non-working PSUs ²	Total
Government Companies ³	48	3	51
Statutory Corporations	3	-	3
Total	51	3	54

The working PSUs registered a turnover of ₹ 54834.65 crore as per their latest finalised accounts as of 30 September 2016. This turnover was equal to 8.13 *per cent* of State Gross Domestic Product (GDP) for the year 2015-16. The working PSUs incurred losses of ₹ 12373.88 crore as per their latest finalised accounts as of 30 September 2016. As on March 2016, the State PSUs had employed around one lakh employees.

There are three non-working PSUs existing and non-functional from last two to 36 years having investment of ₹ 26.23 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 2013). According to Section 2 (45) of the Act 2013, a Government

1 Jodhpur Bus Services Limited (2 April 2015), Kota Bus Services Limited (15 April 2015), Rajasthan Urja Vikas Nigam Limited (4 December 2015), Rajasthan Rajya Vidyut Vitran Vitta Nigam Limited (21 December 2015), Jaipur Smart City Limited (12 March 2016) and Udaipur Smart City Limited (12 March 2016).

2 Non-working PSUs are those which have ceased to carry out their operations.

3 Government PSUs include other Companies referred to in Section 139(5) and 139(7) of the Act 2013.

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 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 2013, the Comptroller and Auditor General of India (CAG) 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 CAG. 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 Act 2013) are audited by Statutory Auditors, who are appointed by the CAG 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 CAG 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 by the CAG 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 three Statutory Corporations, the CAG is sole auditor for Rajasthan State Road Transport Corporation. In respect of Rajasthan State Warehousing Corporation and Rajasthan Financial Corporation, the audit is conducted by Chartered Accountants and supplementary audit by the CAG.

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 CAG, 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 CAG are submitted to the Government under Section 19A of the CAG's (Duties, Powers and Conditions of Service) Act, 1971.

Stake of Government of Rajasthan

1.5 The Government of Rajasthan (GoR) has huge financial stake in the PSUs. This stake is of mainly three types:

- **Share capital and loans** – In addition to the share capital contribution, GoR also provides financial assistance by way of loans to the PSUs from time to time.
- **Special financial support** – GoR provides budgetary support by way of grants and subsidies to the PSUs as and when required.
- **Guarantees** – GoR also guarantees the repayment of loans with interest availed by the PSUs from Financial Institutions.

Investment in State PSUs

1.6 As on 31 March 2016, the total investment (capital and long term loans) in 54 PSUs was ₹ 124810.19 crore as per details given below:

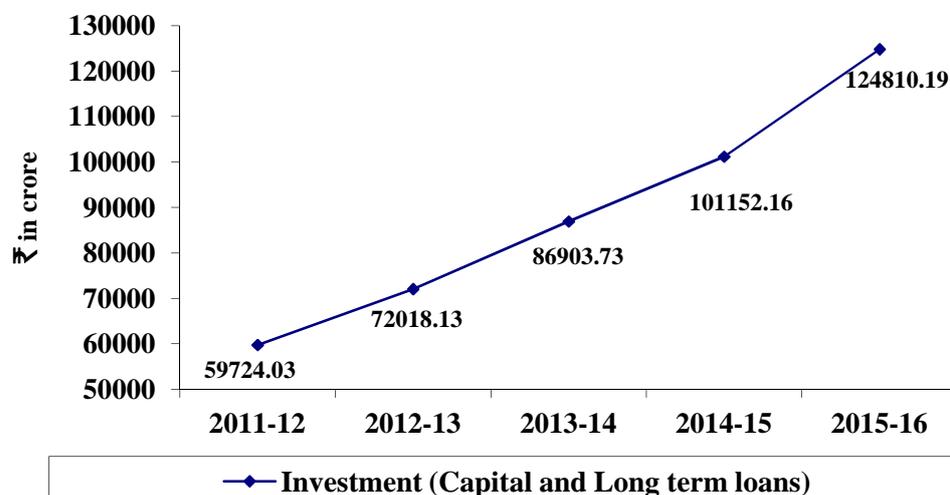
Table 1.2: Total investment in PSUs

(₹ in crore)

Type of PSUs	Government Companies			Statutory Corporations			Grand Total
	Capital	Long Term Loans	Total	Capital	Long Term Loans	Total	
Working	35270.98	87053.39	122324.37	807.54	1652.05	2459.59	124783.96
Non-working	10.16	16.07	26.23	-	-	-	26.23
Total	35281.14	87069.46	122350.60	807.54	1652.05	2459.59	124810.19

As on 31 March 2016, of the total investment in State PSUs, 99.98 per cent was in working PSUs and the remaining 0.02 per cent was in non-working PSUs. This total investment consisted of 28.91 per cent towards capital and 71.09 per cent in long-term loans. The investment has grown by 108.98 per cent from ₹ 59724.03 crore in 2011-12 to ₹ 124810.19 crore in 2015-16 as shown in the graph below:

Chart 1.1: Total investment in PSUs



1.7 The sector-wise summary of investment in the PSUs as on 31 March 2016 is given below:

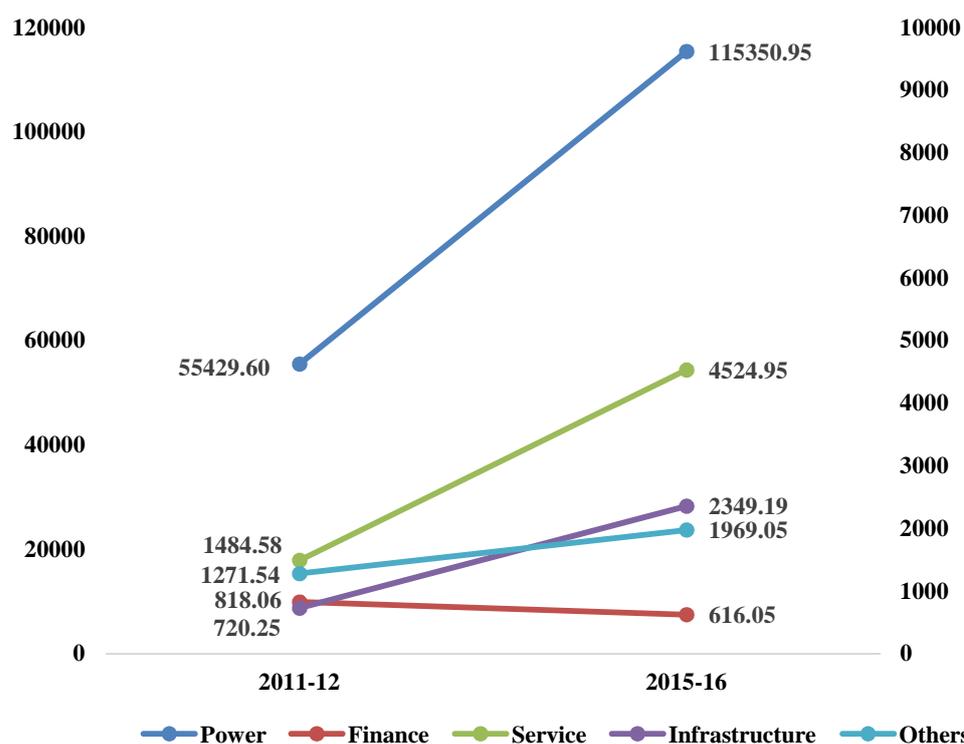
Table 1.3: Sector-wise investment in PSUs

Name of sector	Government Companies		Statutory Corporations		Total	Investment ⁴ (₹ in crore)
	Working	Non-working	Working	Non-working		
Power	16	-	-	-	16	115350.95
Finance	4	-	1	-	5	616.05
Service	15	-	2	-	17	4524.95
Infrastructure	6	-	-	-	6	2349.19
Others	7	3	-	-	10	1969.05
Total	48	3	3	-	54	124810.19

The investment in various important sectors at the end of 31 March 2012 and 31 March 2016 is indicated in the chart below.

Chart 1.2: Sector-wise investment in PSUs

(Figures in ₹ crore)



The thrust of PSU investment was mainly on power sector during the last five years. The power sector received investment of ₹ 59921.35 crore (92.06 per cent) out of total investment of ₹ 65086.16 crore made during the period from 2011-12 to 2015-16. The investment in service and infrastructure sectors had also recorded impressive increase by 204.80 per cent and 226.16 per cent respectively during this period.

4 Investments include capital and long term loans.

Special support and returns during the year

1.8 The GoR provides financial support to PSUs in various forms through annual budget. The summarised details of budgetary outgo towards equity, loans, grants/subsidies, loans written off and loans converted into equity in respect of PSUs for the last three years ending March 2016 are given below:

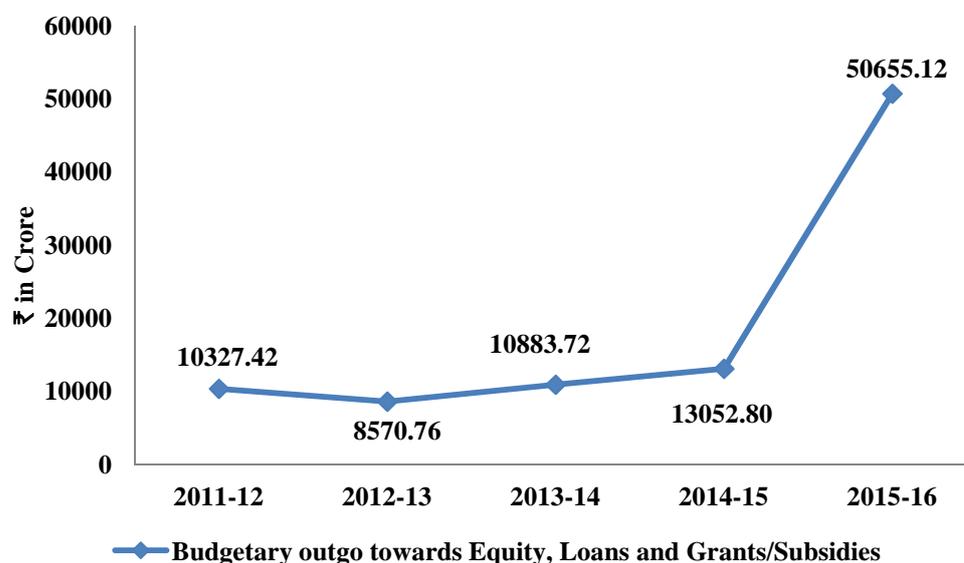
Table 1.4: Details regarding budgetary support to PSUs

(₹ in crore)

Sl. No.	Particulars ⁵	2013-14		2014-15		2015-16	
		No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
1.	Equity Capital outgo	14	4722.21	7	4371.79	6	8497.69
2.	Loans given	8	428.98	11	776.25	9	36568.64
3.	Grants/Subsidy provided	16	5732.53	14	7904.76	16	5588.79
4.	Total Outgo (1+2+3)	26 ⁶	10883.72	18 ⁶	13052.80	19 ⁶	50655.12
5.	Loan repayment written off	1	204.42	-	-	-	-
6.	Loans converted into equity	1	2.62	-	-	3	995.00
7.	Guarantees issued	7	26881.55	6	12066.92	7	16134.66
8.	Guarantee Commitment	9	81228.38	9	90054.11	9	48678.03

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

Chart 1.3: Budgetary outgo towards Equity, Loans and Grants/Subsidies



The above indicates that the budgetary assistance in the form of equity, loan and grant/subsidy by the GoR to PSUs had increased from ₹ 10327.42 crore in 2011-12 to ₹ 50655.12 crore in 2015-16. The significant budgetary outgo to

⁵ Amount represents outgo from State Budget only.

⁶ The figure represents number of companies which have received outgo from budget under one or more heads *i.e.* equity, loans, grants/subsidies.

power sector was 99.31 *per cent* (₹ 8438.82 crore) of equity capital outgo (₹ 8497.69 crore) and 98.24 *per cent* (₹ 49762.43 crore) of total budgetary outgo (₹ 50655.12 crore) during the year.

The three distribution Companies received loan funds from the State Government under UDAY (Ujwal Discom Assurance Yojna) amounting to ₹ 34,349.77 crore (₹ 11785.86 crore to Ajmer Vidyut Vitran Nigam Limited, ₹ 10779.31 crore to Jodhpur Vidyut Vitran Nigam Limited and ₹ 11784.60 crore to Jaipur Vidyut Vitran Nigam Limited).

In order to provide financial assistance to PSUs from banks and financial institutions, GoR gives guarantee under Rajasthan State Grant of Guarantees Regulation 1970. The Government decided (February 2011) to charge guarantee commission at the rate of one *per cent* per annum in case of loan availed by PSUs from banks/financial institutions without any exception under the provision of the Rajasthan State Grant of Guarantees Regulation 1970. Outstanding guarantee commitments decreased by 15.43 *per cent* from ₹ 57559.34 crore in 2011-12 to ₹ 48678.03 crore in 2015-16. During the year 2015-16 guarantee commission of ₹ 385.97 crore was payable/paid by the PSUs.

Reconciliation with Finance Accounts

1.9 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 2016 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	36614.59	35517.53	1097.06
Loans	38537.79	39274.71	736.92
Guarantees	48812.75	48678.03	134.72

Audit observed that the difference occurred in respect of 14⁷ PSUs. The Government and the PSUs should reconcile the difference in a time-bound manner.

Arrears in finalisation of accounts

1.10 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 96 (1) of the Act 2013. Failure to do so may attract penal provisions under section 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

⁷ At Sl. No.-A-1, 2, 6, 7, 8, 10, 11, 14, 16, 29, 36, 45, B-1, and C-1 of Annexure-2.

respective Acts.

The table below provides the details of progress made by working PSUs in finalisation of accounts as on 30 September 2016:

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

Sl. No.	Particulars	2011-12	2012-13	2013-14	2014-15	2015-16
1.	Number of Working PSUs	44	46	48	48	51
2.	Number of accounts finalised during current year	33	59	41	51	55
3.	Number of working PSUs which finalised accounts for the current year	24	33	27	34	37
4.	Number of previous year's accounts finalised during current year	9	25	14	17	18
5.	Number of Working PSUs with arrears in accounts	20	13	21	14	12
6.	Number of accounts in arrears	33	21	29	26	20 ⁸
7.	Average arrears per PSU(6/1)	0.75	0.46	0.60	0.54	0.39
8.	Extent of arrears	One to five years	One to six years	One to seven years	One to eight years	One to five years

Of the total 51 working PSUs, 47 working PSUs had finalised 55 annual accounts, of which 37 PSUs' annual account pertained to 2015-16 and remaining 18 annual accounts pertained to previous years. Twelve working PSUs had 20 accounts in arrears including a company (Udaipur City Transport Services Limited) which had arrears in accounts since 2011-12. The accounts of two PSUs were not considered in arrear as these were incorporated in March 2016. The position relating to arrear of annual accounts improved significantly as average arrear of annual accounts per PSU had decreased from 0.75 in 2011-12 to 0.39 in 2015-16.

1.11 The GoR had invested ₹ 10.93 crore in two PSUs (Loan: ₹ 8.00 crore, Subsidy: ₹ 2.93 crore) during the year 2015-16 for which accounts had not been finalised as detailed in **Annexure-1**. In the absence of finalisation of accounts 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. The GoR investment in such PSUs, therefore, remained outside the control of State Legislature.

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 concerned Departments were informed quarterly, as a result of which number of working PSUs with arrear in accounts decreased from 14 in 2014-15 to 12 in 2015-16. However, six⁹ PSUs which were under administrative control of Local Self Government Department had 14 accounts in arrears despite continuous

8 Accounts of two PSUs (Jaipur Smart City Limited and Udaipur Smart City Limited) were not considered in arrear as these were incorporated in March 2016

9 PSUs at Sl. No. A- 10, 34, 35, 38, 39 and 48 of Annexure 2.

pursuance by the Accountant General/Principal Accountant General.

1.12 In addition to above, there was arrear in finalisation of accounts by the non-working PSUs. The position of accounts in arrears of non-working PSUs is given below:

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

S. No.	Name of non-working companies	Period for which accounts were in arrears
1	Rajasthan State Agro Industries Corporation Limited	2013-14 to 2015-16
2	Rajasthan Jal Vikas Nigam Limited	2015-16

Placement of Separate Audit Reports

1.13 All three working Statutory Corporations had forwarded their accounts of 2015-16 by 30 September 2016. The audit of accounts of two Statutory Corporation was in progress (September 2016).

Separate Audit Reports (SARs) are audit reports of the CAG on the accounts of Statutory Corporations. These reports are to be laid before the Legislature as per the provisions of the respective Acts. The SARs in respect of these Statutory Corporations for the period 2014-15 had been placed¹⁰ in State Legislature during March to September 2016.

Impact of non-finalisation of accounts

1.14 As pointed in paragraph 1.10, 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 State GDP for the year 2015-16 could not be ascertained and their contribution to 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 look into the constraints in preparing the accounts of the Company and take necessary steps to liquidate the arrears in accounts.

Performance of PSUs as per their latest finalised accounts

1.15 The financial position and working results of working Government Companies and Statutory Corporations are detailed in **Annexure-2**. A ratio of PSUs turnover to State GDP shows the extent of activities of PSUs in the State economy. Table below provides the details of turnover of working PSUs and State GDP for a period of five years ending March 2016.

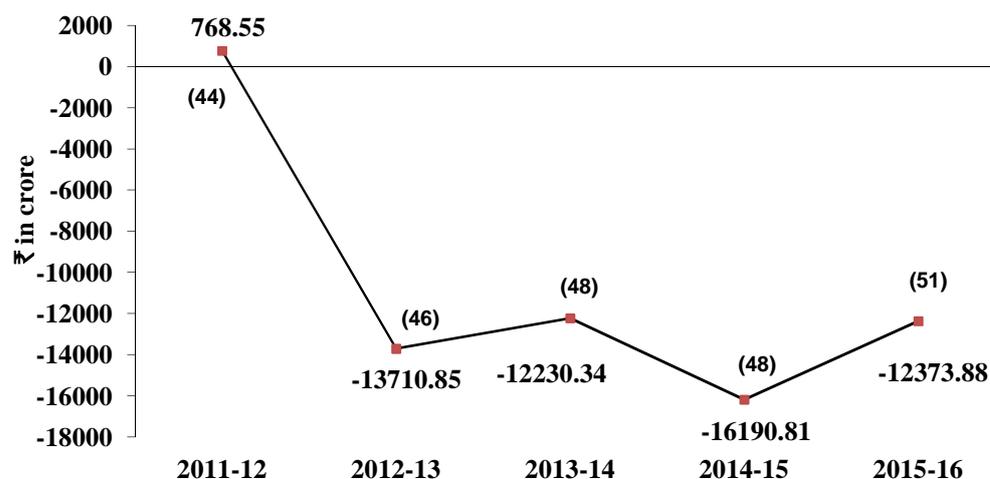
¹⁰ Rajasthan State Warehousing Corporation (2 March 2016), Rajasthan Financial Corporation (11 March 2016) and Rajasthan State Road Transport Corporation (2 September 2016)

Table 1.8: Details of working PSUs turnover vis-a-vis State GDP

Particulars	(<i>₹ in crore</i>)				
	2011-12	2012-13	2013-14	2014-15	2015-16
Turnover ¹¹	32440.58	33486.33	38953.84	47914.29	54834.65
State GDP ¹²	436465.00	494004.00	549701.00	612194.00	674137.00
Percentage of Turnover to State GDP	7.43	6.78	7.09	7.83	8.13

The turnover of PSUs has recorded continuous increase over previous years. The increase in turnover ranged between 3.22 and 23.00 *per cent* during the period 2011-16, whereas increase in GDP ranged between 10.12 and 13.18 *per cent* during the same period. The turnover of PSUs recorded compounded annual growth of 14.02 *per cent* during last five years which was higher than the compounded annual growth of 11.48 *per cent* of State GDP. This resulted in increase of PSUs share of turnover to State GDP from 7.43 *per cent* in 2011-12 to 8.13 *per cent* in 2015-16.

1.16 Overall profit¹³ (loss) earned (incurred) by State working PSUs during 2011-12 to 2015-16 is given below in a line chart.

Chart 1.4: Profit/Loss of working PSUs

— Overall Profit earned/Loss incurred during the year by working PSUs.
 Figures in brackets show the number of working PSUs in respective years.

The working PSUs incurred a loss of ₹ 12373.88 crore in 2015-16 in comparison to profit of ₹ 768.55 crore in 2011-12. According to latest finalised accounts of 51 PSUs, 23¹⁴ PSUs earned profit of ₹ 843.83 crore, 19¹⁴ PSUs incurred loss of ₹ 13217.71 crore, five PSUs had no profit or loss while two PSUs have yet to submit their first accounts since inception and account of remaining two PSUs were not due for the year ended 31 March 2016.

11 Turnover as per the latest finalised accounts.

12 State GDP as per Economic Review 2015-16 of Government of Rajasthan.

13 Figures are as per the latest finalised accounts during the respective years.

14 Including those PSUs which had not started their business activities but were showing marginal profit/loss.

Further, out of 51 PSUs, 18 PSUs incorporated during 2006-07 to 2015-16 did not commence their commercial activities till 2015-16 (**Annexure -2**).

As per their latest finalised accounts, Rajasthan State Industrial Development and Investment Corporation Limited (₹ 349.58 crore) and Rajasthan State Mines and Minerals Limited (₹ 200.33 crore) were the major contributors to the profit while Ajmer Vidyut Vitran Nigam Limited (₹ 3504.00 crore), Jaipur Vidyut Vitran Nigam Limited (₹ 4462.91 crore) and Jodhpur Vidyut Vitran Nigam Limited (₹ 3273.87 crore) incurred heavy losses. These Discoms incurred heavy losses due to sale of electricity below the cost of procurement, heavy transmission and distribution losses, sale of electricity to agricultural consumers at subsidised rates.

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

Table 1.9 Key parameters of the State PSUs

(₹ in crore)

Particulars	2011-12	2012-13	2013-14	2014-15	2015-16
Return on Capital Employed ¹⁵ (per cent)	8.09	-16.32	-7.86	-11.10	0.62
Debt	45976.15	53503.45	63829.17	74747.68	88721.51
Turnover ¹⁶	32440.58	33486.33	38953.84	47914.29	54834.65
Debt/Turnover Ratio	1.42:1	1.60:1	1.64:1	1.56:1	1.62:1
Interest Payments ¹⁶	3681.11	7864.69	8498.38	10346.56	12682.80
Accumulated Profits (losses) ¹⁶	(1590.48)	(50951.85)	(56133.11)	(83732.89)	(99343.29)

During the last five years, the turnover of PSUs recorded compounded annual growth of 14.02 per cent. However, the compounded annual growth of debts was 17.86 per cent indicating increase at a much faster rate than the turnover. The rising debts to turnover ratio from 1.42:1 in 2011-12 to 1.62:1 in 2015-16 indicated increased reliance on debts by PSUs.

1.18 The State Government had formulated (September 2004) a dividend policy under which all profit making PSUs are required to pay a minimum return of ten per cent on the paid up share capital or 20 per cent of the profit after tax, whichever is lower. As per their latest finalised accounts, 23 PSUs earned an aggregate profit of ₹ 843.83 crore and eight¹⁷ PSUs declared a dividend of ₹ 64.55 crore which worked out to 0.18 per cent of equity capital of all the PSUs. Of 23 profit earning PSUs, 15 PSUs did not declare dividend due to accumulated losses or marginal profits, four¹⁸ PSUs declared dividend more than the prescribed limit, while two¹⁹ PSUs declared dividend less than the prescribed limit and remaining two²⁰ PSUs declared dividend as per policy.

15 Upto 2011-12, Capital employed had been worked out using formula (Net fixed assets + Working capital). From 2012-13, Capital employed has been worked out using formula (Shareholder's fund + Long-term borrowings).

16 As per latest finalised accounts.

17 PSUs at Sl. No.-A-1, 8, 9, 13, 14, 16, 31 and B-3 of Annexure-2.

18 PSUs at Sl. No.- A-1, 9, 16 and B-3 of Annexure-2

19 PSUs at Sl. No.-A-8, and 14 of Annexure-2.

20 PSUs at Sl. No.-A-13 and 31 of Annexure-2.

Winding up of non-working PSUs

1.19 There were three non-working PSUs (all companies) as on 31 March 2016 having a total investment of ₹ 26.23 crore towards capital (₹ 10.16 crore) and long term loans (₹ 16.07 crore). The numbers of non-working companies at the end of each year during past five years are given below.

Table 1.10: Non-working PSUs

Particulars	2011-12	2012-13	2013-14	2014-15	2015-16
No. of non-working companies	3	2	3	3	3

None of these non-working companies was under liquidation. Since the non-working PSUs are not contributing to the intended objectives, these PSUs maybe either revived or closed down.

Accounts Comments

1.20 Forty four working Companies forwarded their 52 audited accounts to the Accountant General during the period from October 2015 to September 2016. Of these, 23 accounts of 20 Companies were selected for supplementary audit. The Audit Reports of Statutory Auditors appointed by the CAG 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 the CAG are given below.

Table 1.11: Impact of audit comments on working Companies

(₹ in crore)

Sl. No.	Particulars	2013-14		2014-15		2015-16	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1.	Decrease in profit	6	266.83	5	85.90	5	28.74
2.	Increase in profit	1	0.81	8	121.79	6	14.24
3.	Increase in loss	5	459.02	8	3059.24	6	712.94
4.	Decrease in loss	3	20.16	2	55.54	3	203.06
5.	Non-disclosure of material facts	1	26.54	3	68.25	1	2.98
6.	Errors of classification	4	28.42	10	2738.30	6	398.16

During the year 2015-16, the Statutory Auditors had given qualified certificates on 21 accounts and adverse²¹ certificate on one account of Rajasthan State Handloom Development Corporation Limited. The compliance of the Accounting Standards (AS) by PSUs remained poor as there were 46 instances of non-compliance in 14 accounts as pointed out by the Statutory Auditors.

1.21 Similarly, three working Statutory Corporation forwarded their accounts of 2015-16 to Accountant General. The CAG is sole Auditor in respect of Rajasthan State Road Transport Corporation. On remaining two Corporations, the Statutory Auditors had given qualified certificate in respect of Rajasthan Financial Corporation. There was one instance of non-compliance with Accounting Standards. The details of aggregate money value

²¹ Accounts do not reflect true and fair position.

of comments of Statutory Auditors and supplementary audit by the CAG are given below:

Table 1.12: Impact of audit comments on Statutory Corporations

(₹ in crore)

Sl. No.	Particulars	2013-14		2014-15		2015-16	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1.	Decrease in profit	2	51.91	2	22.41	1	31.59
2.	Increase in profit	1	1.30	-	-	-	-
3.	Increase in loss	1	729.18	1	2162.57	1	2364.69
4.	Non-disclosure of material facts	2	554.11	1	604.45	1	1819.89
5.	Errors of classification	1	1.27	-	-	2	81.00

Audit of annual accounts of the Rajasthan Financial Corporation and Rajasthan State Road Transport Corporation for the year 2015-16 by the CAG was in progress as on 30 September 2016.

Performance Audits and Paragraphs

1.22 For the Report of the Comptroller and Auditor General of India for the year ended 31 March 2016, two performance audits and 11 audit paragraphs were issued to the Principal Secretaries/Secretaries of the respective Administrative Departments with request to furnish replies within six weeks. The reply on one²² compliance audit paragraph was awaited (30 September 2016) from the State Government. However, the reply on 'Factual Statement' from the concerned PSU was received and taken into account while finalising the paragraph.

Follow up action on Audit Reports

Replies outstanding

1.23 The Report of the Comptroller and Auditor General of India represents 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 Rajasthan issued (July 2002) instructions to all Administrative Departments to submit replies/explanatory notes to paragraphs/performance audits included in the Reports of the CAG 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).

22 Rajasthan State Road Development and Construction Corporation Limited.

**Table 1.13: Position of explanatory notes on Audit Reports
(as on 30 September 2016)**

Year of the Audit Report (PSUs)	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 not received	
		PAs	Paragraphs	PAs	Paragraphs
2014-15	28.03.2016	2	9	-	-

Explanatory notes on all the performance audits and compliance audit paragraphs have been received.

Discussion of Audit Reports by COPU

1.24 The status of discussion of Performance Audits and paragraphs that appeared in Audit Reports (PSUs) by the COPU as on 30 September 2016 was as under:

Table 1.14: Performance Audits/Paragraphs appeared in Audit Reports vis-a-vis discussed as on 30 September 2016

Period of Audit Report	Number of Performance Audits/Paragraphs			
	Appeared in Audit Report		Paragraphs discussed	
	Performance Audit	Paragraphs	Performance Audit	Paragraphs
2013-14	3	11	2	11
2014-15	2	9	-	-

The discussion on Audit Reports (PSUs) up to 2012-13 has been completed.

Compliance to Reports of COPU

1.25 Action Taken Notes (ATNs) to one Report of the COPU presented to the State Legislature in September 2015 had not been received (30 September 2016) as indicated below:

Table 1.15: Compliance to COPU Reports

Year of the COPU Report	Total number of COPU Report	Total number of recommendation in COPU Report	Number of recommendations where ATNs not received
2015-16	1	1	1

The above mentioned Report of COPU contained recommendation in respect of paragraphs pertaining to Tourism Department, which appeared in the Report of the CAG of India for the year 2011-12.

The Government may ensure sending of replies to draft paragraphs/performance audits and ATNs on the recommendations of COPU as per the prescribed time schedule and recovery of losses/ outstanding advances/ overpayments within the prescribed period.

Disinvestment, Restructuring and privatisation of PSUs

1.26 Rajasthan Avas Vikas and Infrastructure Limited merged with Rajasthan Urban Drinking Water Sewerage and Infrastructure Corporation Limited in January 2016.

Coverage of this Report

1.27 This Report contains 10 compliance audit paragraphs and two performance audits *i.e.* on 'Performance Audit on Kalisindh Thermal Power Project of Rajasthan Rajya Vidyut Utpadan Nigam Limited' and 'Performance Audit (IT) on Computerisation of ticketing activities by Rajasthan State Road Transport Corporation' involving financial effect of ₹ 584.94 crore.

CHAPTER II

Performance Audit relating
to Government Companies

Chapter II

Performance Audit relating to Government Companies

2 Performance Audit on Kalisindh Thermal Power Project of Rajasthan Rajya Vidyut Utpadan Nigam Limited

Executive Summary

The Government of Rajasthan (State Government) included setting up of Kalisindh Thermal (coal based) Power Project (KaTPP) in its XIth five year plan (2007-12) and accorded (June 2007) administrative and financial approval of ₹4600 crore for setting up two units (500 MW each) of KaTPP. The proposed capacity was enhanced (June 2007) to 1200 MW (2 X 600 MW) to ensure wider participation of the international bidders. The Performance Audit covers all the activities of KaTPP since preparation of Detailed Project Report (DPR) by TCE Consulting Engineers Limited till commissioning of the plant including operational performance upto 2015-16.

Setting up of KaTPP

The DPR envisaged (October 2007) the cost of setting up of the plant at ₹5495.07 crore. Rajasthan Rajya Vidyut Utpadan Nigam Limited (Company) revised the estimated cost to ₹7723.70 crore (May 2011) and further revised (March 2014) it to ₹9479.51 crore which was approved (August 2011 and August 2014) by the State Government. Both the Units of KaTPP were commissioned at a total cost of ₹9479.51 crore. The actual cost of setting up the plant exceeded the estimated cost (₹4600 crore) by 106.08 per cent. The State Government provided equity assistance (20 per cent) of ₹1895.90 crore and remaining funds (80 per cent) of ₹7583.61 crore were arranged by the Company through borrowings from Power Finance Corporation (PFC)/commercial banks.

The cost overrun as compared to the estimated cost in DPR was attributed to increase in cost of 'Engineering, Procurement and Commissioning' (EPC) contract (₹1852 crore); water storage system (₹764.05 crore); construction of Railway siding (₹153.85 crore upto March 2015 and work was in progress as on March 2016); and interest and finance cost (₹1881 crore) during the period of construction. Besides, various associated works like construction of store shed/hostel; fire tender and dozer; third party inspection were not envisaged in DPR and contributed to cost overrun.

The work orders for setting up the project were awarded (October 2008) to BGR Energy Systems Limited, Chennai (BGR Energy) at a negotiated price of ₹4900.06 crore. The contract price included off-shore supplies of US \$ 405 million and local (Indian) supplies/services of ₹3296.665 crore.

The contractual commissioning period of Unit-I and Unit-II was October 2011 and January 2012 respectively. The Units were commissioned after delays of 31 months and 42 months on 7 May 2014 and 25 July 2015 respectively. Delay in completion of the project was attributed to delay (seven months) in obtaining environmental clearance and non-adherence to the time schedule in completion of various major activities by BGR Energy. The major activities viz. boiler light up, ash handling plant, coal handling plant and cooling tower, etc. were completed after delays ranging between 18 and 41 months in case of Unit I and 28 and 53 months in case of Unit-II. The work order for supply of the generator transformers was placed (February 2012) after elapse of the contractual date of commissioning of both the Units. Further, BGR Energy observed delays of more than two years in awarding work orders to its sub-vendors for electrical and mechanical works, after award of EPC contract. The sub-vendors delayed supply of material/completion of mechanical and civil works by more than two years. The Board discussed (March 2009 to May 2014) the issue of delay in completion of the project several times but deferred levy of Liquidated Damages (LD) six times between March 2009 and May 2014.

The contract price of BGR Energy was firm. The Company was required to make payments for off-shore supplies at a firm rate of ₹ 39.59 per US \$ and any exchange rate variation was to be borne by BGR Energy. The Company purchased one US \$ at a rate ranging between ₹ 44.32 to ₹ 66.88 and made payments in US \$ without recovering exchange rate variation of ₹ 295.29 crore. This also resulted into extra burden of ₹ 19.40 crore on the Company towards payment of taxes to the Central/State Government. Further, the Company extended undue financial benefit to BGR Energy by refunding labour cess of ₹ 48.21 crore in violation of the clauses of work order and notification (27 July 2009) issued by the State Government.

Civil works

The Water Resources Department (WRD) of the State Government agreed to share 60 per cent of the cost of construction of Dam on Kalisindh River but it did not incur any expenditure and the entire cost was borne by the Company. The Company released funds of ₹ 696.37 crore to WRD during 2007-16 but did not make any effort to recover the cost to be shared by the WRD. IRCON could not complete the construction of railway siding within the stipulated time period and the Company granted extension seven times (50 months) during February 2012 to October 2015 and made payments of ₹ 6.26 crore (upto March 2015) towards field supervision/establishment charges beyond the committed charges.

Operational efficiency of KaTPP

The KaTPP could not achieve the operational parameters fixed by Rajasthan Electricity Regulatory Commission in respect of Plant Load Factor; Station Heat Rate; consumption of oil; and auxiliary consumption. Non-achievement/adherence to the operational norms caused shortfall in generation of 4217.86 MUs valuing ₹ 1744.06 crore; excess consumption of coal of 4.34 lakh MT valuing ₹ 177.34 crore; excess consumption of 22723 kilolitre oil (₹ 99.25 crore); and loss of 127.70 MUs valuing ₹ 51.67 crore during 2014-16. The plant availability norms (85 per cent) fixed by Central Electricity Authority were also not achieved. The Unit-I remained inoperative for 4431.45 hours (56.12 per cent) out of 7896 available operational hours due to forced outages during 2014-15.

Environmental issues

The Company did not establish (July 2016) environment management cell at KaTPP as per conditions of the environment clearance. The KaTPP failed to achieve stack emission parameters prescribed by Ministry of Environment and Forest, Government of India (GoI) in respect of particulate matter; Sulphur Dioxide; and Oxides of Nitrogen. Further, equipment to measure the air and noise pollution were also not installed.

Financial management

The Company defaulted in payment of interest/principal to the PFC and had to pay penal interest and interest thereon of ₹ 8.47 crore besides forgoing rebate of ₹ 18.15 crore towards timely payment of installments. Delay in commissioning of Unit-I by 31 months deprived the Company of a rebate of ₹ 35.40 crore. The Company did not make any effort to seek exemption from the State Government from payment of entry tax (₹ 22.74 crore) paid to BGR Energy. Further, KaTPP was eligible for availing fiscal benefits under Mega Power Project policy of the GoI but the Company never explored possibilities and was, therefore, deprived of fiscal benefits of ₹ 431.30 crore.

Audit recommendations

Audit recommendations mainly pertain to recovering LD and other excess payments made to BGR Energy as per tender terms/General Conditions of Contract; recovering cost of Dam to be shared by WRD including prorata charges; adhering to the environmental norms; and exploring possibilities to avail benefits under the policies of GoI and State Government.

Introduction

2.1 Kalisindh Thermal (coal based) Power Project (KaTPP) of Rajasthan Rajya Vidyut Utpadan Nigam Limited (Company) is located in Jhalawar District of the State of Rajasthan. The Government of Rajasthan (State Government/GoR) included KaTPP in its XIth five year plan (2007-12) to meet the growing demand of electricity for rapid economic development of the State. The proposed capacity of the plant was 1000 Megawatt (MW) (2 X 500 MW) to be installed at an estimated cost of ₹ 4600 crore. The State Government enhanced (June 2007) the proposed capacity to 1200 MW (2 X 600 MW) on the request (May 2007) of the Company to ensure wider participation of the international bidders as per the recommendations of the Central Electricity Authority (CEA). The Unit-I (May 2014) and Unit-II (July 2015) of KaTPP were commissioned at a total cost of ₹ 9479.51 crore.

Scope of Audit

2.2 The Performance Audit covers the activities of KaTPP since preparation of Detailed Project Report (DPR) in 2007-08 by the Consultant till commissioning of the plant including operational performance upto 2015-16.

Our scrutiny mainly involved review of DPR; contracts relating to erection/engineering, procurement & commissioning of the plant and associated civil works. The operational performance of the plant has been analysed with reference to the standards of performance projected in the DPR and standards prescribed by the CEA/Rajasthan Electricity Regulatory Commission (RERC)/Government of India (GoI). Further, adherence to the environmental rules and regulations prescribed by Ministry of Environment and Forest (MoEF), GoI has been reviewed.

Audit Objectives

2.3 The Performance Audit was carried out to assess whether:

- engineering, procurement and commissioning (EPC) of the plant was in accordance with the DPR time schedule;
- contract and financial management were effective to minimise the time and cost overruns;
- the plant achieved operational efficiency as per the norms/standards prescribed in DPR and those by CEA/RERC/GoI; and
- environmental Rules/Regulations were adhered to by the Company.

Audit Criteria

2.4 The audit criteria derived from the following sources were adopted for achieving the audit objectives:

- DPR of the project;

- Administrative and Financial sanction/approval of the State Government for implementation of the project;
- tender documents and work orders awarded for erection, procurement and commissioning of plant;
- standards of performance stipulated in DPR;
- standards of performance prescribed by CEA/RERC/GoI;
- joint venture agreement for supply of coal;
- environmental Rules and Regulations of GoI/State Government;
- performance reports submitted to the RERC; and
- Board agenda and minutes, manuals, MIS and other relevant records of the Company.

Audit Methodology

2.5 The methodology adopted for attaining audit objectives with reference to audit criteria consisted of:

- explaining audit objectives and audit criteria to the Government/Company during entry conference held on 22 February 2016;
- review of records at the Head Office of the Company and at KaTPP during January 2016 to May 2016;
- raising of audit queries and interaction with the Management of the Company;
- issue (June and August 2016) of draft Performance Audit Report to the Government/Company for comments and replies thereon; and
- discussions with the Government/Company on the audit findings during exit conference held on 29 August 2016.

The Performance Audit Report has been finalised considering the views of the Company during exit conference and its reply (August 2016) to the draft Performance Audit Report. The Government endorsed (August 2016) the reply of the Company.

Audit findings

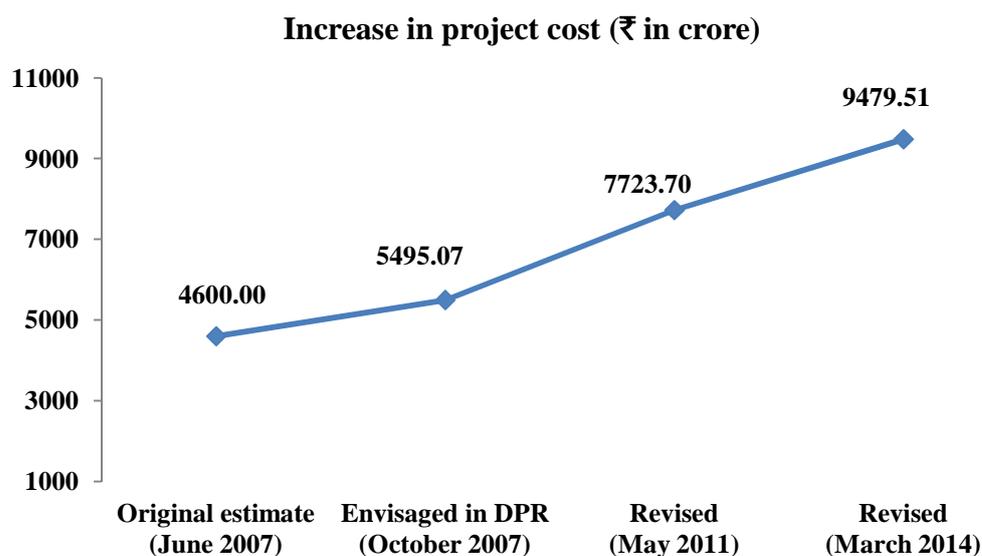
2.6 The audit findings broadly cover issues relating to contract management in setting up of the project and civil works; operational efficiency of the plant; and compliance with the Environmental Rules and Regulations.

Setting up of KaTPP

2.7 The State Government accorded (June 2007) administrative & financial approval of ₹ 4600 crore for setting up the two units (500 MW each) of KaTPP. The terms of sanction provided the funding pattern in the debt-

equity ratio of 80:20. The State Government was to provide equity assistance of 20 per cent and remaining 80 per cent funds had to be arranged by the Company through borrowings from Power Finance Corporation (PFC) and Commercial Banks.

The DPR envisaged (October 2007) the cost of setting up of the plant (2 X 600 MW) at ₹ 5495.07 crore. The Company revised (May 2011) the estimated cost to ₹ 7723.70 crore which was approved (August 2011) by the State Government. The State Government also accorded (September 2012) approval for additional equity assistance. The estimated cost was again revised (March 2014) to ₹ 9479.51 crore and approved (August 2014) by the State Government.

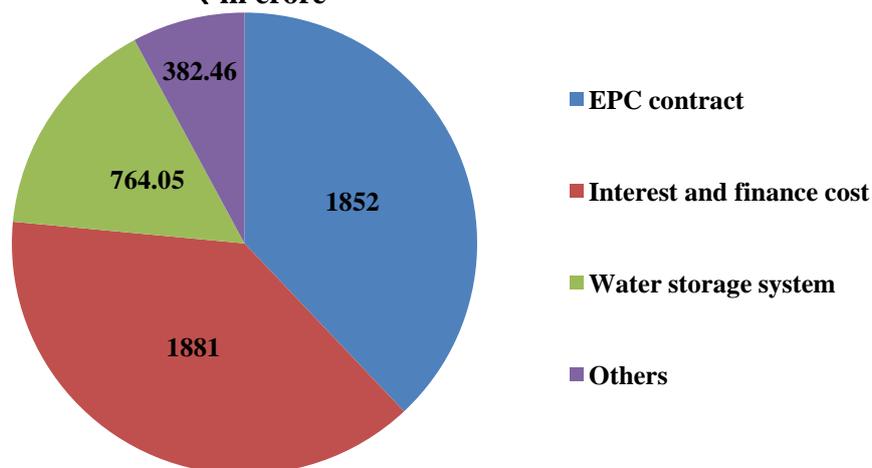


The funding pattern of the project as on March 2016 was as below:

Sources of funds	Amount (₹ in crore)	Percentage contribution
Equity assistance from State Government	1895.90	20.00
Loan from Power Finance Corporation	6583.61	69.45
Issue of Bonds	850.00	8.97
Short-term loans from banks	150.00	1.58
Total	9479.51	100.00

The Unit-I and Unit-II were scheduled to be commissioned in 39 and 42 months respectively from the date of placement of order for the main plant. The Units were, however, commissioned after delay of 31 and 42 months respectively from the contractual commissioning period. Unit-I was commissioned in May 2014 and Unit-II in July 2015 at a total cost of ₹ 9479.51 crore. The actual cost of setting up the plant, therefore, exceeded the estimated cost by 106.08 per cent. The major components causing cost overrun are shown in the pie-chart below:

Major components of cost overrun
₹ in crore



2.8 The reasons for increased cost are discussed below:

- The cost of ‘Engineering, Procurement and Commissioning’ (EPC) of both the Units as per DPR prepared by the Consultant and the original sanction issued (June 2007) by the State Government was ₹ 3539 crore. However, the EPC contract was awarded (October 2008) to the lowest bidder at ₹ 4900.06 crore. The value of EPC contract was further increased (May 2011 and March 2014) to ₹ 5391 crore due to foreign exchange rate variation and inclusion of tax liabilities like entry tax. The cost of EPC works, therefore, increased by ₹ 1852 crore (52.33 per cent) when compared to the original sanctioned cost and cost envisaged in DPR.
- The DPR envisaged the cost of water storage system at ₹ 50 crore. The Company, however, in addition to the water storage system envisaged in DPR also constructed dam on Kalisindh River and an additional raw water reservoir in the premises of KaTPP. Though the work of construction of dam and additional raw water reservoir was in progress (March 2016), the Company had released payments of ₹ 696.37 crore to the Water Resources Department of the State Government towards construction of dam. The contract for additional raw water reservoir was awarded at ₹ 67.68 crore. The project cost, therefore, increased by ₹ 764.05 crore.
- The original sanctioned cost of the project estimated the interest and finance cost during the period of construction at ₹ 564 crore. However, time and cost overruns increased the interest and finance cost to ₹ 2445 crore.
- The Consultant envisaged cost of ₹ 30 crore for construction of Railway siding. The Company awarded contract to IRCON Limited on cost plus basis. The work was in progress (March 2016) and as on March 2015, the Company had released payments of ₹ 160.56 crore to IRCON Limited. The Company had also made (March 2015)

payments of ₹ 23.29 crore to Railways for other works related to construction of railway siding.

- The DPR did not envisage cost of various associated works viz. construction of store shed/hostel (₹ 12.97 crore); fire tender and dozer (₹ 8 crore); third party inspection (₹ 3.75 crore), construction of boundary wall (₹ 2.28 crore); expenditure towards corporate social responsibility (₹ 24 crore); which also led to increase in the project cost.

The Company accepted the fact of cost overrun and stated that the project report for setting up of units (2 X 500 MW) was prepared by the Company based on rough estimates considering normative values for getting sanction from the State Government. The fact remained that the project estimates were not realistic.

Execution of Project

2.9 The major contracts awarded by the Company for setting-up of Units of KaTPP were as below:

Details of Work orders/contracts	Name of the Contractor	Date of issue of the work order	Amount of work order (₹ in crore)
Preparation of DPR	TCE Consulting Engineers Limited	6 October 2007	8.40
Supply of equipment and materials including mandatory spares of off-shore origin	BGR Energy Limited	13 October 2008	US \$ 405 million and ₹ 431.296 crore (Total ₹ 2034.691 crore)
Supply of all equipment and materials including mandatory spares of Indian origin	BGR Energy Limited	13 October 2008	1843.216
Supply of additional spare parts	BGR Energy Limited	26 June 2015	166.00
Third party inspection of Boilers, Steam Turbines, Generators material	Lloyd's Register Asia	16 July 2009	3.00

Outside view of Kalisindh Thermal Power Plant



Appointment of consultant

2.10 The Company engaged (October 2007) TCE Consulting Engineers Limited (Consultant) at a cost of ₹ 8.40 crore for providing comprehensive consultancy services for setting up of KaTPP which included preparation of feasibility report/DPR; design engineering services including procurement assistance, inspection services, field engineering (site supervision) services and start-up; commissioning and initial operation including post commissioning consultancy.

The work order provided for payments in three parts: lumpsum firm price for comprehensive consultancy services; man-day rate for inspection services; and man-month rate for services of qualified and experienced engineers. The man-month rates were valid upto 31 December 2008 while lumpsum prices were valid upto 30 June 2012. The Company was required to pay escalation charges at the rate of eight *per cent* per calendar year or part thereof for availing services beyond the validity period.

We observed that the Company incurred extra expenditure of ₹ 3.75 crore¹ towards man-days and man-months including escalation charges thereon for availing the services beyond the validity period due to delay in commissioning of the project.

The Company stated that supervision services were essentially required for monitoring/supervision of the works as per plan. The fact remained that the Company had to incur extra expenditure due to delay in commissioning of the project.

Implementation of the Project

2.11 The Company issued (July 2008) letter of intent (LoI) to BGR Energy Systems Limited, Chennai (BGR Energy) for setting up of both the units of

¹ As per work order, ₹ 2.65 crore was to be paid. However, the total variable charges paid to the consultant were ₹ 6.40 crore due to delay in commissioning of the project.

KaTPP on 'Engineering, Procurement and Commissioning' (EPC) basis at a negotiated price of ₹ 4900.06 crore. The contract included off-shore supplies of US \$ 405 million and local (Indian) supplies/services of ₹ 3296.66 crore. Clause 11 of the work order (13 October 2008) provided that the contractual commissioning period of Unit-I and Unit-II would be 39 months and 42 months respectively from the date of issue of LoI. Accordingly, contractual commissioning period of Unit-I and Unit-II was 8 October 2011 and 8 January 2012 respectively. The final handing over of Unit-I and Unit-II was to be done by 17 December 2011 and 17 March 2012 respectively.

The Unit-I and Unit-II were declared commissioned for commercial operations on 7 May 2014 and 25 July 2015 respectively. The contractual commissioning period of Unit-I and Unit-II was, therefore, delayed by 31 months and 42 months respectively as discussed below.

Non-availability of environmental clearance

2.12 The Company applied (19 December 2007) to MoEF for grant of environmental clearance for KaTPP which was accorded on 26 February 2009. As such, BGR Energy could not commence the work from the date of issue (9 July 2008) of LoI resulting in delay of seven months in commencement of work.

The Company stated that the delay in obtaining environmental clearance from MoEF was a procedural delay and beyond the control of the Company.

Non adherence to the time schedule as per PERT Chart

2.13 BGR Energy submitted (September 2008) PERT² chart indicating scheduled date of completion for various electrical, mechanical and civil works of the project. The performance of BGR Energy in achievement of major milestones vis-à-vis their scheduled completion date as per PERT chart is given below.

Name of the work	Unit-I			Unit-II		
	Scheduled date of completion	Actual date of completion	Delay in months	Scheduled date of completion	Actual date of completion	Delay in months
Boiler Light up	12 March 2011	30 December 2012	21	07 June 2011	16 April 2014	33
Ash Handling Plant	28 March 2011	03 June 2014	38	20 June 2011	03 June 2014	35
Coal Handling plant	05 May 2011	16 September 2013	28	05 May 2011	16 September 2013	28
Cooling Tower	10 May 2011	21 April 2013	23	25 June 2011	12 December 2015	53
Turbine on barring gear	27 May 2011	03 February 2013	18	06 August 2011	25 August 2014	36
Rolling & Synchronization	14 June 2011	30 May 2014	35	05 September 2011	27 February 2015	41
Readiness of 400KV Switch yard	09 September 2010	31 March 2014	42	20 January 2011	31 March 2014	38

2 Programme Evaluation and Review Technique.

As seen from above, BGR Energy could not complete any of the major activities within the stipulated time period. The major activities viz. boiler light up, ash handling plant, coal handling plant and cooling tower, etc. were completed after delays ranging from 18 to 41 months in case of Unit I and 28 to 53 months in case of Unit-II. Delay in completion of major activities delayed the trial run of the Units by 32 and 42 months respectively. BGR Energy handed over the Units finally in January 2016.

We observed that there was considerable delay in awarding work orders to the sub-vendors by BGR Energy after award of EPC contract. Out of 87 electrical and 567 mechanical works, work orders to sub-vendors for 17 electrical and 60 mechanical works were placed after delay of more than two years from the date of award of EPC contract. The sub-vendors of BGR Energy also delayed supply of material and in completion of mechanical and civil works. The sub-vendors delayed the supply of materials for three electrical and 85 major mechanical works by more than two years. Further, out of 74 civil works, the sub-vendors delayed 36 works by more than two years.

The monthly progress reports submitted by BGR Energy in respect of both the units disclosed that upto 8 January 2012 (schedule date of completion of Unit-II), the level of completion of construction of Balance of Plant; Boiler; Turbine; and Generator (BTG) was only 73.59 per cent against 99.57 per cent completion level envisaged in PERT chart. Further analysis disclosed that BGR Energy did not submit 16 mechanical drawings relating to Coal Handling Plant and four civil engineering drawings related to wagon tippler by the stipulated completion date of Unit-II. As regards civil work, 42 per cent soling³ and 60 per cent RCC⁴ work of Stock Pile area; 40 per cent RCC work of Crusher House; and 45 per cent work of Conveyor foundation were pending by the scheduled completion date of Unit-II.

We observed that the Company had not made any detailed analysis of the reasons for delay. The Board of Directors (Board) discussed (March 2009 to May 2014) the issue of delay in completion of the project in the Board meetings. However, no concrete action or directions were issued to BGR Energy to ensure timely completion of the project. The Board even deferred the issue of levy of Liquidated Damages (LD) six times between March 2009 and May 2014 on the plea that levy of LD would not in any way relieve the contractor from its obligation and liabilities.

We observed that Clause 5 of the Work order (October 2008) provided that the contractor was required to furnish a contract performance guarantee in the form of Bank guarantee equivalent to 10 per cent of the total composite value of EPC contract for timely completion and faithful performance of the contract. Clause 22.1 of the General Conditions of Contract (GCC) and clauses of the work orders awarded to BGR Energy provided for levy of LD at the rate of 0.5 per cent of the total contract price per week of delay or part thereof for delay in handing over of the Units. The maximum amount of LD for delay in handing over the Units was 10 per cent of the total contract price.

3 Leveling of the ground.

4 Reinforced cement concrete.

As on 31 July 2016, the Company had financial hold of ₹ 109.57 crore and US \$ 10.7 million towards LD for delay in completion of the project. In addition, the Company also had financial hold of ₹ 329.67 crore and US \$ 40.5 million in the form of bank guarantees⁵ towards performance of the equipment supplied by BGR Energy.

The Company stated that various activities mentioned in the PERT chart were interlinked with each other and any delay in providing input had the cascading effect on future activities. The Company attributed the time overrun to delay in getting environmental and railway siding clearances; issues relating to payment to the contractor; long spells of rain during 2011 and 2012; *etc.* The Company also apprised that a committee had been constituted to finalise the LD to be recovered from BGR Energy for delay in completion of the project.

Installation of generator transformer

2.14 As per technical specifications⁶ of the EPC contract, BGR Energy was required to install two sets of Indian make generator transformers. The preferred sub-vendors were Bharat Heavy Electricals Limited, Alstom, Transformers and Electricals Kerala Limited, Asea Brown Boveri and Crompton Greaves Limited.

All the terms, conditions and technical specifications were accepted by BGR during finalisation of the tender and there was no specific request for change in the technical specifications of generator transformers even during the pre-bid meetings. However, BGR Energy subsequently sought (February 2009) deviation in the technical specifications of the generator transformers and offered Chinese make generator transformers. During February 2009 to October 2011 several correspondences took place on this issue between the Company and BGR Energy but BGR Energy could not furnish sufficient reasons for not supplying the Indian make generator transformers from the preferred domestic sub-vendors. Finally, BGR Energy agreed (January 2012) to supply Indian make generator transformers and placed (February 2012) supply order on Crompton Greaves Limited. The generator transformers were received at KaTPP during March 2012. By this time, the scheduled date (26 January 2011) of commissioning of the generator transformers at both the Units had already passed.

This had substantially delayed the commissioning of Unit-I and Unit-II as the work order for supply of the generator transformers was placed after elapse of the contractual date of commissioning of both the Units (January 2012).

The Company stated that any delay in completion of the project on account of delay in supply of generator transformer would be considered along with other reasons of delay while finalizing the closure of contract.

Undue benefit to BGR Energy

2.15 The Company invited (13 August 2007) tenders for setting up two units of KaTPP on EPC basis and received bids from BGR Energy and BHEL. The various clauses of Instructions to Bidders (ITB) and General Conditions of Contract (GCC) provided that:

5 Bank guarantees are valid upto April 2017.

6 Section C-14/Volume-II.

- The bidders shall quote their proposal in lumpsum price for the entire scope of works on firm basis and quoting a system of pricing other than the specified system would run the risk of rejection of bids. The price shall be quoted in Indian Rupees or U.S. Dollar (US \$). If a bidder quotes price in US \$, then US \$ would be converted in Indian Rupees at the exchange rate prevailing on the date of opening Techno-commercial bid. The price thus converted in Indian Rupees would be used for evaluation purpose. Further, the currency for payment would be Indian Rupees (irrespective of the currency indicated by the bidder in the price bid) at the exchange rate prevailing on the date of opening of Techno-commercial bid (Clause 18 of the ITB).
- The contract price would be firm except for statutory variations in taxes and duties applicable in India only (Clause 16 of the GCC).
- The Company would make payments in Indian Rupees/US \$ through the financial institution tied up for payments under the contract. If payments were requested in US \$ for imported components, the payments in US \$ would be made keeping in view the selling price of US \$ as on the date of opening of Techno-commercial bid and any variations in the exchange rate shall be on the part of the contractor (Clause 45.5.1 of the GCC).
- No exchange rate variation would be payable; the prices are firm; and any variation in the exchange rate would be on the account of contractor. The exchange rate of US \$ as on the date of opening of Techno-commercial bid would be taken into consideration till finalisation of the contract and any charges for arranging US \$ would be on the part of the contractor (Clause 47.2 of the GCC).

Audit scrutiny disclosed that BGR Energy sought deviation in Clause 18 of the ITB and 45.5.1 of the GCC during pre-bid meeting (October 2007). It desired that the payments should be made in the quoted currency and payments for foreign portion should be made at the rate applicable on the date of payment instead of the exchange rate existing on the date of opening of Techno-commercial bid.

The Company did not clarify the issue and deferred it stating that the clarification would be issued to the bidders in due course of time. The Company, however, with regard to another clarification sought by BGR Energy in respect of payment in foreign exchange for the foreign supplies portion of the contract, clarified that payments would be made in currencies (US \$ or Indian Rupees) in which the contract price had been stated in contractor's bid.

It was noticed that BHEL quoted the contract price exclusively in Indian Rupees while BGR Energy quoted its price bid in two parts *i.e.* off-shore supplies of US \$ 405 million and on-shore supplies and civil work of ₹ 3419.61 crore. The Company converted the US \$ 405 million into Indian Rupees taking exchange rate (₹ 39.59 per US \$) existing on the date (10 January 2008) of opening of Techno-commercial bid. The Company evaluated the price bids as per the terms and conditions of tender and guaranteed performance parameters of the equipment/proposed plant. The contract price

of BHEL and BGR Energy was evaluated at ₹ 5083.35 crore and ₹ 5027.51 crore respectively. As BGR Energy was the lowest bidder, the Company entered (July 2008) into negotiations with it and issued (9 July 2008) LoI at ₹ 4900.06 crore. Subsequently, the work order was issued on 13 October 2008.

It was noticed that the Company never issued any clarification on the deviation sought by BGR Energy as regards the date of exchange rate to be reckoned for making payment for supplies quoted in US \$. The Company, however, arranged US \$ and made payments to BGR Energy without considering the fact that no exchange rate variation was payable. There were wide fluctuations in the exchange rate of US \$ after awarding of the Contract and the Company paid at exchange rates ranging between ₹ 44.32 and ₹ 66.88 per US \$ during the period from March 2010 to June 2015.

The Company was required to make payments for off-shore supplies at a firm rate of ₹ 39.59 per US \$ as per the contract and any variation on account of exchange rate was to be borne by the contractor. The Company, by not observing the terms and conditions of ITB and GCC, paid ₹ 295.29 crore in excess to BGR Energy on the off-shore supplies made by it. Besides, the Company also did not adjust payment of ₹ 8.72 lakh made to the State Bank of Bikaner and Jaipur for arranging US \$.

The excess payment which was made on account of exchange rate variation also impaired the process of selection of lowest bidder because payments made to BGR Energy without considering the exchange rate of ₹ 39.59 per US \$ were much higher than those quoted by BHEL.

The Company stated that it was a standard practice followed in Government organizations to pay in Indian Rupees at the foreign exchange rate prevailing on the date of lading. Further, the Company issued (November 2007) clarification regarding payment in foreign currency for the foreign supplies portion which stated that the currency or currencies in which payments were to be made to the contractor under this contract should be specified in the bid, subject to the general principle that payments would be made in currency or currencies *i.e.* (US \$ or Indian rupees) in which the contract price had been stated in the contractor's bid. However, applicable taxes, duties and levies payable in India should be paid in local *i.e.* Indian Rupees. This clarification allowed payment in the currency/currencies quoted in the bid without consideration of foreign exchange rate.

The reply is not convincing in view of the fact that Clauses 45.5.1 and 47.2 of the GCC, clearly provided that payments would be made in US \$ as per the exchange rate prevailing on the date of opening of techno-commercial bid and any exchange rate variation would be on the part of the contractor. The clarification issued in November 2007 nowhere provided that variation in exchange rate would be borne by the Company. Further, the contract price was firm as per Clause 16 of the GCC and 18 of the ITB.

Excess liability towards taxes/cess

2.16 The Company made statutory deductions of US \$ 23.98 million from the bills of BGR Energy for off-shore supplies towards income tax (*two per cent*), works contract tax (*three per cent*) and labour Cess (*one per cent*)

during the period 2009-16. The deductions made from the bills were deposited with the concerned tax authorities after converting the US \$ at the prevailing exchange rate (₹ 44.32 to ₹ 66.88 per US \$) instead of the exchange rate (₹ 39.59 per US \$) prevailing on the date of opening of Techno-commercial bid. This caused extra burden of ₹ 19.40 crore on the Company towards payment of these taxes to the Central/State Government.

The Company stated that all offshore payments were made in US \$ and as such the taxes were also deducted at source in US \$ and deposited with the tax authorities in equivalent Indian Rupees considering the prevailing exchange rate. The fact remained that it resulted into extra burden on the Company due to payments made in US \$ when deposited at the prevailing exchange rate which was in violation of Clause 18 of the ITB and Clause 16, 45.5.1 and 47.2 of the GCC.

Refund of Labour Cess to BGR Energy

2.17 Clauses 1 and 2 of the work order awarded (13 October 2008) to BGR Energy provided that the contract price was firm in all respect and inclusive of all taxes and duties applicable on 10 January 2008 irrespective of whether taxes and duties were mentioned. Clause 3 provided that if the tax rates were increased or decreased or a new tax was introduced or an existing tax was abolished during the contractual period, the variation in taxes and duties would be reimbursed/adjusted/recovered by the Company, as the case may be. Clause 4 relating to tax deducted at source provided that in case any deduction of tax was required to be made at source by the Company from any payments made to the contractor under any applicable statute, no reimbursement of such tax would be made by the Company. However, necessary tax deduction certificate would be provided to the contractor. Further, if the State or Central Government brings into effect any other tax to be deducted at source during the validity of the contract, then the same would be deducted at source as per prevailing rules and shall not be reimbursed by the Company.

The GoI notified (October 1996) 'Building and Other Construction Workers Welfare Cess Act', 1996 which provided levy of cess at the rate of one *per cent* on the cost of construction incurred by employers. The GoI also notified (March 1998) 'Building and Other Construction Workers Welfare Cess Rules', 1998 (Rules) which provided that where the levy of cess pertains to building and other construction work of a Government or of a Public Sector Undertaking (PSU), such Government or PSU shall deduct the cess payable at the notified rates from the bills paid for such works.

The GoR constituted (April 2009) Board as per Rules and notified (30 April 2009) 'The Rajasthan Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Rules', 2009. The GoR directed (9 July 2010) all the State Government Departments and PSUs to deduct cess at the rate of one *per cent* from the bills paid for building and other construction works. The notification directed that cess would be deducted on all the running projects in the State of Rajasthan and 27 July 2009 shall be taken as cut-off date⁷ for levy and collection of cess.

7 Applicable date after which cess would be levied and collected.

The Company deducted ₹ 48.21 crore from the bills of BGR Energy towards labour cess during the period 2009-15 and deposited the same with the State Government from time to time. The BGR Energy made various representations (2010 to 2012) to the Company as regards non-applicability of labour cess and claimed reimbursement of the deducted amount on the grounds that contract price was firm as per Clause 1 and 2 of the work order and the techno-commercial bids were opened (10 January 2008) prior to the applicability (27 July 2009) of cess by the State Government.

The Company sought (November 2012) opinion of a Tax Consultant⁸ on the issue. The Consultant opined (November 2012) that the Company might take legal opinion for interpretation of the contract documents. The Company, however, did not take legal opinion on this issue and refunded (January 2013 to November 2015) ₹ 48.21 crore (upto March 2016) to the contactor.

We observed that the decision of the Company to refund the deducted amount of labour cess from its own resources without taking legal opinion was not justified because the notification (9 July 2010) of GoR clearly stipulated that deduction of cess would be made from 27 July 2009 on all the running projects in the State. The Company being a PSU was required to deduct cess as per the Act and Rules *ibid*. Clause 4 (tax deducted at source) of the work order also clearly stipulated that if the State or Central Government brings into effect any other tax to be deducted at source during the validity of the contract then the same would be deducted at source as per prevailing rules and shall not be reimbursed by the Company.

The Company in its reply and discussion held during exit conference stated that an opinion of the Advocate General, Rajasthan was being sought on the issue and action would be taken based on the opinion of the Advocate General.

Civil works

2.18 The DPR prepared (October 2007) by the Consultant envisaged civil works of ₹ 627.70 crore excluding cost of land. The actual cost of civil works, however, exceeded the estimates significantly. The work order awarded (13 October 2008) to BGR Energy for execution of civil works in relation to erection of plant itself accounted for ₹ 1022.15 crore. Besides, the planning failure in construction of water storage system and railway siding during execution of the project significantly increased the cost of civil works. The Company awarded following major contracts in relation to civil works at KaTPP.

8 M/s Kalani and Company.

Details of Work orders/contracts	Name of the Contractor	Date of issue of the work order	Amount of work order (₹ in crore)
Providing services and execution of civil works	BGR Energy Limited	13 October 2008	1022.152
Construction of Dam	Water resources Department	NA	799.00
Construction of Railway siding	IRCON, New Delhi	22 December 2009	Cost plus factor basis. Expenditure of ₹ 163.83 crore incurred upto March 2015
Construction of township	Manda Developer & Builders Private Limited, Bikaner	17 May 2008	82.89
Engineering and supply for river water system	IVRCL Infrastructures and Projects Limited	30 December 2010	77.85
Construction of additional raw water reservoir	Manda Developer & Builders Private Limited, Bikaner	22 November 2012 and 24 April 2015	67.68
Construction of boundary wall	GMM Construction Private Limited	26 May 2009	5.18
Construction of field hostel	Murari Lal Singhal	18 December 2009	2.64
Supply and commissioning of Diesel Hydraulic Shunting Locomotive	SAN Engineering and Company	15 June 2012	16.49
Supply and commissioning of BEML make Dozers	BEML	20 June 2012	6.40

The major reasons for the increase in cost of civil works are discussed below.

Construction of dam

2.19 The DPR envisaged that the source of water for KaTPP would be Kalisindh River located at an aerial distance of 12 Km from the power plant. Raw water was proposed to be pumped from the river to a raw water pond located within the premises of the plant. The total cost of water storage system was envisaged at ₹ 50 crore. The construction of water storage system was to be completed by September 2010.

During meetings (24 February 2007 and 26 May 2007) held amongst the Company, Energy Department (GoR) and Water Resources Department (GoR), it was decided to construct Kalisindh Major Irrigation Project (Dam) to fulfill the water requirements of KaTPP. The cost of the proposed Dam was to be shared in the ratio of 2:3 by the Company and Water Resources Department (WRD) respectively.

We noticed that the WRD did not incur any expenditure on construction of Dam as decided in the meetings and the entire cost was borne by the Company. The Company, without executing any agreement, released funds of ₹ 696.37 crore to WRD for construction of Dam during 2007-16. The WRD incurred expenditure of ₹ 586.13 crore on construction of Dam; adjusted ₹ 100.18 crore towards prorated charges (fixed overheads); and balance funds of ₹ 10.06 crore were lying unspent with it.

We observed that the construction of a Dam on Kalisindh River had already been planned by the WRD prior to the decision of setting up of KaTPP by the

Company. The Company was also not an exclusive beneficiary of the Dam as the WRD supplied water to the nearby villages and charged for the same. Besides, WRD also raised bills (₹ 1.44 crore upto March 2016) on the Company for supply of water to KaTPP from the Dam.

The Company did not make any effort to recover the cost of Dam to be shared by the WRD including prorate charges. The construction of dam, therefore, increased the project cost by ₹ 696.37 crore. This also would have impacted the cost of generation vis-a-vis approval of higher tariff by RERC as the cost of Dam was part of capital cost of the project.

The Company stated that the total cost of dam was to be borne by it as per the communication (29 April 2008) of Principal Secretary, WRD. The Board also approved (26 March 2010) that the entire cost would be borne by the Company along with the cost of construction of raising height of anicut on Kalisindh River. The reply was not convincing because the communication (29 April 2008) was between WRD (GoR) and MoEF (GoI) and a copy of letter was endorsed to the Company. The State Government had not issued any directions to the Company/WRD that the entire cost of dam would be borne by the Company. The WRD without consulting the Company informed MoEF that the entire cost would be borne by the Company and the Board of the Company accepted the same. This also went against the decision taken in the meetings held in February/May 2007.

During exit conference, the Managing Director of the Company assured that the matter of cost sharing would be taken up with the State Government.

Avoidable expenditure on field supervision charges

2.20 The Company awarded (22 December 2009) the work of design, engineering, manufacturing, construction, installation and commissioning of railway siding⁹ to IRCON International Limited, New Delhi (IRCON) on cost plus factor (eight *per cent*) basis. The terms and conditions of the work order provided that the actual payment to IRCON towards field supervision/establishment charges¹⁰ was limited to ₹ 1.50 crore plus eight *per cent* contractor's fee during the completion period of 22 months. The period of 22 months was to be reckoned from the date of acceptance (8 October 2009) of Letter of Authority (LoA) by IRCON. Thus, the field supervision/establishment charges mentioned in the work order were applicable upto the date of completion of entire work *i.e.* 8 August 2011. In case the works got delayed beyond 22 months because of the Company, the field supervision/establishment charges were to be mutually discussed and decided.

We noticed that IRCON could not complete the work within the stipulated time period and the Company granted extension seven¹¹ times during February

9 The scope of the work included the railway premises and upto the boundary of power plant and also within the premises of KaTPP.

10 Field supervision/establishment charges included salary, special salary, allowances incentives and other perks, contribution to provident funds, leave travel concession, bonus, medical expenses, insurance & compensation.

11 17 February 2012, 26 July 2012, 19 March 2013, 06 June 2013, 17 October 2013, 22 October 2014 and 05 October 2015.

2012 to October 2015 for a period of 50 months. IRCON attributed the delay to non-availability of environmental clearance; non-availability of encumbrance free land; heavy rainfall; free working space not provided by BGR Energy; etc. The Company, however, never analysed the delay attributable to it. Further, the terms of payment of field supervision/establishment charges after expiry of the stipulated period of 22 months were also not discussed with IRCON.

The Company consequently paid ₹ 6.26 crore¹² upto March 2015 towards field supervision/establishment charges on the basis of monthly expenditure statement submitted by IRCON beyond the committed charges of ₹ 1.62 crore.

The Company stated that IRCON commenced the part-II works (construction, installation, commissioning and handing over) after final approval of DPR on 18 August 2011. The reply did not address the issue of non-fixation of supervision charges as per terms of contract.

Supply of fuel-demurrage charges

2.21 The Ministry of Coal (GoI) allotted (19/25 June 2007) 'Parsa East and Kente Basan' (Chhatisgarh State) coal blocks to the Company for meeting the fuel requirements of KaTPP. The Company entered (July 2008) into coal mining and delivery agreement with Parsa & Kente Collieries Limited (PKCL)¹³ for mining of coal and its supply at KaTPP for a period of 30 years.

Demurrage charges are levied by the Railway authorities for halting of wagons in excess of the permissible free time allowed for loading/unloading of rakes. The Ministry of Railways allowed (7 March 2013) free permissible time of five hours for loading/unloading of coal rakes. Detention of wagons beyond the free permissible time attracted (22 March 2013) demurrage charges at the rate of ₹ 150 per eight wheeled wagon per hour or part of an hour. The number of coal rakes received at KaTPP, rakes attracting demurrage charges and demurrage charges levied by the Railways during 2013-16 were as below.

Year	Number of rakes received	Rakes which attracted demurrage	Percentage of rakes attracting demurrage	Demurrage levied by Railways (₹ in lakh)
2013-14	05	05	100.00	11.63
2014-15	290	251	86.55	287.03
2015-16	886	602	67.95	133.35
Total	1181	858	72.65	432.01

It could be seen that during 2013-14 to 2015-16, KaTPP received 1181 coal rakes out of which 858 (72.65 per cent) rakes were unloaded beyond permissible time limit of five hours and, therefore, attracted demurrage charges of ₹ 4.32 crore. Detention of wagons beyond the permissible time of five hours even went upto 54 hours. The Company represented to the Railway authorities for waiver of demurrage charges citing various reasons viz.

12 Including service charges of 8 per cent on committed charges of ₹ 1.50 crore.

13 PKCL is a joint venture company pursuant to the terms of the Joint Venture Agreement dated 3 August 2007 between Adani Enterprises Limited and Rajasthan Rajya Vidyut Utpadan Nigam Limited.

electrical and mechanical problems, bunching of coal rakes, breakdown of crusher and conveyer belts, *etc.* The Railways, however, waived meager amount of demurrage charges of ₹ 8.04 lakh.

The Company, therefore, incurred infructuous expenditure of ₹ 4.24 crore towards demurrage charges during 2013-16.

The Company accepted the facts and stated that demurrage charges were required to be paid during the initial commissioning period due to various reasons like bunching of rakes and non-electrification of the railway track. It further stated that the track had now been electrified and bunching of rakes had reduced improving the system of unloading of coal rakes.

Operational efficiency of KaTPP

The Company filed tariff petition for Aggregate Revenue Requirement (ARR) before RERC for Unit-I (19 June 2014) and Unit-II (6 November 2015). The RERC approved provisional tariff and ARR for Unit-I and Unit-II on 14 May 2015 and 21 January 2016. The provisional tariff for Unit-I and Unit-II was decided at ₹ 4.216 per kWh and ₹ 3.683 per kWh respectively. The RERC in provisional tariff for Unit-I also approved norms for GCV of the coal; plant load factor; station heat rate; fuel oil (HFO and LDO) consumption; and auxiliary consumption. The provisional tariff for Unit-II did not include these norms as both the units were identical in nature and, therefore, the norms approved for Unit-I were also applicable for Unit-II. The calculations made in this Performance Audit Report in respect of Unit-II are, therefore, based on the norms prescribed by RERC for Unit-I.

Plant Load Factor (PLF)

2.22 PLF is a measure of output of a power plant compared to the maximum possible output it could produce.

The installed capacity of Unit-I and Unit-II of the KaTPP is 600 MW each. The DPR envisaged yearly gross electricity generation of 10512 MUs and net power dispatch of 8409.60 MUs at an average¹⁴ Plant Load Factor (PLF) of 80 *per cent*. The Unit-I and Unit-II were commissioned on 7 May 2014 and 25 July 2015 respectively. The estimated power generation at 80 *per cent* PLF vis-a-vis actual generation of electricity by Unit-I and Unit-II during 2014-15 and 2015-16 was as below:

Power generation in MUs	Unit-I		Unit-II
	2014-15 (7 May 2014 to 31 March 2015)	2015-16	2015-16 (25 July 2015 to 31 March 2016)
Estimated generation at 80 <i>per cent</i> PLF	3790.08	4204.80	2883.62
Actual generation	1147.39	3570.70	2350.50
Shortfall	2642.69	634.10	533.12

Besides, the RERC in provisional tariff for Unit-I had fixed PLF norms at 83 *per cent*. The PLF achieved by the Unit-I and Unit-II during the period of their operation was as below:

¹⁴ The average PLF of NTPC during 2014-15 was 80.23 *per cent*.

PLF (In percentage)	Unit-I		Unit-II
	2014-15	2015-16	2015-16
PLF fixed by RERC	83.00	83.00	83.00
PLF achieved	24.22	67.75	65.03

The PLF achieved by Unit-I and Unit-II during 2014-15 and 2015-16 was much below the norms fixed by RERC. Monthly reports indicated that the Unit-I achieved the norms of PLF in only three months *i.e.* October 2015, December 2015 and January 2016 wherein the PLF was 86.76, 89.31 and 84.95 *per cent* respectively. The Unit-II achieved PLF norms in only two months *i.e.* January 2016 and March 2016 wherein the PLF was 84.40 and 83.10 *per cent* respectively.

The major reasons for low PLF were non-stabilization of Units after commissioning; forced outages; backing down of plant due to the instructions of SLDC; *etc.* The estimated shortfall in generation due to PLF lower than the norms prescribed by RERC worked out to 4217.86 MUs valuing ₹ 1744.06 crore¹⁵ during 2014-16.

The Company stated that low PLF was due to teething problems occurred at the time of commissioning of Unit-I. It also stated that the net PLF of the plant during 2015-16 was above the national average (62.29 *per cent*). The fact remained that both the Units could not achieve the PLF fixed by the RERC.

Plant availability and outages

2.23 Plant availability means the ratio of actual hours operated to maximum hours available for operation of a plant during a certain period. The normative annual plant availability factor prescribed by the Central Electricity Authority (CEA), GoI is 85 *per cent* for all thermal stations during 2014-19. The plant availability of Unit-I was 43.88 and 82.30 *per cent* during 2014-15 and 2015-16 respectively. The plant availability of Unit-II was 77.92 *per cent* during 2015-16. The total available operational hours; actual operated hours; planned outages; forced outages; and overall plant availability in respect of Unit-I and Unit-II during 2014-15 and 2015-16 were as below:

Particulars	Unit-I		Unit-II
	2014-15	2015-16	2015-16
Total available operational hours [A]	7896.00	8784.00	6024.00
Actual operated hours [B]	3464.55	7229.45	4694.12
Planned outages (in hours) [C]	0.00	613.25	412.93
Forced outages (in hours) [D= A - (B + C)]	4431.45	941.30	916.95
Percentage of forced outages to total Hours [D / A]	56.12	10.72	15.22
Plant availability (<i>per cent</i>) [B / A X 100]	43.88	82.30	77.92

It could be seen that the Unit-I remained inoperative for 4431.45 hours (56.12 *per cent*) out of 7896 available operational hours due to forced outages during 2014-15. This indicated that Unit-I could not be stabilized after commissioning during this period. The main reasons for forced outages were boiler tube leakage; tripping of generator and turbine; high/low level of boiler drum level; *etc.*, which could have been avoided with better operation and maintenance of the plant.

15 Valued at provisional tariff approved by the RERC for Unit-I and Unit-II @ ₹ 4.216 and ₹ 3.683 respectively.

The Company accepted the facts and stated that outages of both the Units remained high due to various technical problems/constraints related to adoption of new Chinese technology. It added that familiarisation with the technology was not so rapid to get fast and perfect stabilization of Units.

Station Heat Rate

2.24 The Station Heat Rate (SHR) is an important index for assessing the efficiency of a thermal power station. The heat rate of a power plant is the amount of chemical energy that must be supplied to produce one unit of electrical energy *i.e.* heat energy input in Kilocalorie (Kcal) required for generating one Kilowatt-hour (kWh) of electrical energy. It should be the endeavor of any station to operate the unit at as near its design Heat Rate as possible. Station heat rate improvement also helps in reducing pollution from Thermal Power Stations.

The RERC prescribed SHR of 2320.632 Kcal/kWh while approving provisional tariff for Unit-I. The average SHR attained by Unit-I was 2742.19 and 2598.87 Kcal/kWh during 2014-15 and 2015-16 respectively. The average SHR of Unit-II was 2606.16 Kcal/kWh during 2015-16.

High incidence of SHR was attributable to technical problems *viz.* boiler tube leakage, break down of unit, maintenance, *etc.* and load reduction orders by SLDC which resulted in higher SHR than the RERC norms. The high SHR resulted in excess consumption of coal of 4.34 lakh MT valuing ₹ 177.34 crore (**Annexure-3**).

The Company attributed the reasons for higher SHR towards non-stabilization of Units; frequent tripping; and operation of Units on reduced load due to backing down of Units as per the instructions of SLDC. The fact remained that the company could not maintain SHR within the norms prescribed by the RERC.

Excess consumption of oil

2.25 High Furnace Oil (HFO) and Light Diesel Oil (LDO) are used as starting or ignition fuel in thermal power plants. The RERC in provisional tariff for Unit-I prescribed (May 2015) norms for consumption of HFO and LDO at 0.50 milliliter per kilowatt-hour (ml/kWh) *i.e.* 0.45 ml/kWh for HFO and 0.05 ml/kWh for LDO. The average oil consumption at KaTPP against the prescribed norms during 2014-15 was 11.156 ml/kWh (Unit-I); and 2.474 ml/kWh (Unit-I) and 1.967 ml/kWh (Unit-II) during 2015-16.

The Company, therefore, consumed an excess of HFO and LDO to the extent of 22723 kilolitre as compared to the norms prescribed by RERC resulting in extra expenditure of ₹ 99.25 crore on fuel cost during 2014-15 and 2015-16 (**Annexure-4**).

The Company accepted the facts of excess consumption of oil and stated that these were the first units of this capacity and technology in the State and it was expected that there would be teething problems at the time of commissioning of the Unit 1. It further stated that the Units were 'backed down' as per the instructions of SLDC and the oil support had to be taken which also contributed to increased oil consumption.

Auxiliary Consumption

2.26 Auxiliary power in a power plant is defined as the power consumed by various balances of plant equipment for smooth running of the plant. The DPR of KaTPP envisaged auxiliary consumption at six *per cent* while, the RERC in provisional tariff for Unit-I allowed auxiliary consumption at 5.25 *per cent*. The auxiliary consumption of Unit-I and Unit-II during the period of their operation was in excess of the norms prescribed by RERC as shown below:

Unit and period of operation	Gross generation (MUs)	Auxiliary consumption (MUs)			
		RERC norms	Actual	Actual (in percentage)	Excess
Unit-I					
7 May 2014 to 31 March 2015	1147.39	60.24	89.76	7.82	29.52
April 2015 to March 2016	3570.70	187.46	244.90	6.86	57.44
Unit-II					
25 July 2015 to 31 March 2016	2350.50	123.40	164.14	6.98	40.74

The actual auxiliary consumption of both the Units ranged between 6.86 *per cent* and 7.82 *per cent* during 2014-16. Auxiliary consumption in excess of the norms prescribed by RERC resulted into loss of 127.70 MUs which could have been transmitted to grid and generated revenue of ₹ 51.67 crore.

The Company accepted the facts and stated that a report has been prepared and submitted for petition to be filed before RERC for increase in normative value of auxiliary consumption.

Environmental Issues

2.27 Coal-based power plants significantly impact the local environment. Direct impacts resulting from construction and ongoing operations include:

- Air Pollution - particulates, Sulphur Dioxide, Nitrogen Dioxide, and other hazardous chemicals and toxic metals like Mercury, Lead *etc.*
- Water Pollution - occurs in local water streams, rivers and ground water from effluent discharges and percolation of hazardous materials from the stored fly ash.
- Land Degradation - occurs due to alterations of land used for storing fly ash.
- Noise Pollution - occurs during plant operation and cause occupational as well as public health hazards.

The MoEF, GoI accorded (February 2009) Environmental Clearance (EC) to KaTPP for a period of five years to start production operations. As per condition No. 3 (XXVII) of EC, the Company was required to create a separate environment management cell with qualified staff at KaTPP for implementation of the stipulated environmental safeguards. The Company, however, did not establish (July 2016) environment management cell at the KaTPP.

The Company stated that the environment management cell was being set up under the control of Chief Engineer, KaTPP.

Stack Emission standards

2.28 The MoEF, GoI amended (December 2015) the 'Environment (Protection) Rules, 1986 and prescribed stack emission standards for thermal power stations installed between 1 January 2003 and 31 December 2016. The thermal power stations were required to achieve the standards within two years from the date (8 December 2015) of publication of the notification.

The Unit-I of KaTPP was commissioned on 7 May 2014 but the Company commenced monitoring of stack emission parameters from 1 November 2015. The Company noticed that the equipment installed by the BGR Energy recorded the parameters of stack emission on abnormally higher side. Further, the equipment also recorded negative results and sometimes remained out of order. The Company, therefore, got conducted (21 March 2016) a third party inspection from SMS Envocare Limited. The stack emission parameters measured by the third party against the standards prescribed by MoEF were as below.

Parameter	Standards prescribed by MoEF (Milligram per normal meter cubed per hour)	Results as measured by third party	
		Unit-1	Unit-2
Mercury (Hg)	0.03 mg/Nm ³	N/A	N/A
Particulate Matter	50 mg/Nm ³	47.46	74.32
Sulphur Dioxide	200 mg/Nm ³	1540.97	1787.33
Oxides of Nitrogen	300 mg/Nm ³	415.36	481.77

The results of third party inspection showed that the KaTPP did not maintain the stack emission norms prescribed by MoEF.

We observed that the Company was required to install flue gas desulphurization plant for controlling excess release of Sulphur Dioxide and make modifications in the firing system or install De-Nitrogen Oxide system for curbing excess release of oxides of Nitrogen. The Company did not plan installation of flue gas desulphurization plant even though the bidders had specifically asked (October 2007) the Company during pre-bid conference. However, the Company had submitted (April 2016) an action plan to its corporate office for achieving environmental norms.

The Company accepted the facts and stated that possibilities were being explored by the corporate office to achieve stack emission parameters by all the plants of the Company.

Air and noise pollution

2.29 The MoEF amended (16 November 2009) the Environment (Protection) Rules, 1986 and prescribed certain standards for major pollutants for air. The Company had not installed equipment at KaTPP to measure pollutants prescribed by MoEF even after a lapse of about two years from the date of commissioning of Unit-I.

The Company stated that three offline and one online ambient air quality monitoring stations had been set up and third party agency was being engaged to monitor air quality parameters.

The sources of noise pollution at a thermal power station are steam turbine generator; other rotating equipment; combustion induced noises; flow induced noises; and steam safety valves. The MoEF amended (9 March 2009) Noise

Pollution (Regulation and Control) Rules, 2000 which provided that the level of noise at the boundary of a public place where any source of noise is being used should not exceed 10 decibel (dB) above the ambient noise standards prescribed for the area or 75 dB, whichever is lower.

The Company, however, did not install (March 2016) equipment to measure the noise levels at the KaTPP and, therefore, could not ensure that the noise levels were within the prescribed norms.

The Company stated that acoustic system for measuring noise levels had been mounted on high noise generating sources like turbine and personal protective equipment like ear muffs/ear plugs were being provided to workers in high noise areas. Further, the Company was also planning to monitor the noise of various noise generating equipment.

Financial Management

Penalty for default in payment of loan installment

2.30 The Power Finance Corporation (PFC) sanctioned¹⁶ (March 2008 to September 2014) a loan of ₹ 6583.61 crore against the proposals¹⁷ (September 2007 to August 2014) of the Company for setting up the KaTPP. Clause 2.1 of the sanction issued by PFC provided that the borrower shall pay interest on the loan at the rate of interest prevailing on the date of each disbursement along with interest tax at the rate applicable from time to time. The installment of interest and interest tax was payable quarterly on the 15th day of April, July, October and January every year. The borrower was eligible for a rebate of 0.25 *per cent* in the applicable interest rate in case of timely payment of installments. Further, Clause 6.1 provided that the borrower shall pay a penal rate of interest of two *per cent* over and above the rate of interest at which the loan was sanctioned in case the interest/interest tax or the principal amount was not paid on the due date. The penal interest was to be compounded on quarterly basis.

The Company defaulted in payment of interest/principal to the PFC five¹⁸ times (July 2012 to October 2015). As a result, the Company had to pay penal interest and interest thereon of ₹ 8.47 crore to the PFC. Further, the Company also could not avail rebate of ₹ 18.15 crore towards timely payment of installments.

The Company accepted the facts and stated that the Company was facing financial crunch due to non-receipt of regular payments from the power distribution companies for sale of energy. The loan funds received from PFC had to be utilized for other operating power plants to provide power to distribution companies which was priority of that time to keep these units operational. Further, the financial institutions/commercial banks also refused to give further loans to the power sector companies. The Company had

16 ₹ 3680 crore on 31 March 2008, ₹ 2498.40 crore on 14 November 2011 and ₹ 405.21 crore on 30 September 2014.

17 The Company sent proposals for loan on 11 September 2007, 23 August 2011 and 22 August 2014.

18 July 2012, October 2012, July 2013, October 2013 and October 2015.

incurred losses during this period and no surplus funds were available for debt servicing.

Rebate forgone due to delay in commissioning

2.31 As per Policy in vogue, the PFC allows (2004) a rebate of 0.25 *per cent* in the interest rate for generation projects from the date of commissioning of the first unit of the project. Accordingly, the PFC agreed to allow (May 2014) a rebate of 0.25 *per cent* to the Company on loan availed for setting up of KaTPP. We observed that Unit-I of the KaTPP was to be commissioned by 9 October 2011 as per the LoI issued to BGR Energy. However, the actual date of commissioning was 7 May 2014. The Company was, therefore, deprived of a rebate of ₹ 35.40 crore due to delay in commissioning of Unit-I by 31 months.

The Company accepted the facts and stated that deprival of rebate was a consequential effect of the delay in commissioning of the project.

Additional financial burden due to non-availing of exemption from payment of Entry Tax

2.32 The GoR introduced (March 1999) 'The Rajasthan tax on entry of goods into local area Act, 1999 which provided for levy of tax on entry of any goods brought into the local area for the purpose of consumption/use/sale. Section 9 of the Act empowered the State Government to grant prospective or retrospective exemption from payment of the entry tax in public interest, fully or partially.

The Company did not make efforts to seek exemption from the State Government from payment of entry tax. We observed that private power producers/other Government PSUs/private companies¹⁹ sought exemption from the State Government from payment of entry tax and the same was granted to them.

The Company estimated (May 2011) the lumpsum amount of entry tax at ₹ 19 crore. However, the actual reimbursement of entry tax to BGR Energy was ₹ 22.74 crore during 2009-14. The Company filed (June 2014) Aggregate Revenue Requirement with RERC for determination of provisional tariff and claimed ₹ 19 crore against the payments made towards entry tax. The RERC approved (May 2015) the claims of the Company in the provisional tariff.

The Company by not seeking exemption for entry tax had not only caused an increase in the project cost but also the cost of generation, ultimately putting an additional burden on the consumers.

The Company stated that entry tax was paid to BGR Energy as per applicable laws and terms and conditions of the contract. The State Government granted exemption of entry tax to private entrepreneurs to attract private investment in the State. The reply was not tenable because the State Government also allowed exemption from payment of entry tax to the Government PSUs on their application. The Company also added that the matter would be taken up with the State Government.

19 Adani Power Rajasthan Limited (April 2011), Jaipur Metro Rail Corporation Limited (December 2012), Mangalam Cement Limited (January 2013), etc.

Non-inclusion of additional cost of spares in project cost

2.33 The terms of sanction (June 2007) of the GoR provided the funding pattern of the project in the debt-equity ratio of 80:20 *i.e.* the GoR would provide 20 *per cent* equity assistance and remaining 80 *per cent* funds had to be arranged by the Company through borrowings from PFC/Commercial Banks.

The main BTG equipment and auxiliaries for the plant had been supplied by Dongfang Electric Company, China (DEC China) through BGR Energy. Mandatory spares of BTG package were included in the EPC contract but keeping in view the difficulty in arranging spares, lead time in supplies from China and generation loss, the Company placed (June 2015) an additional purchase order with BGR Energy at a negotiated price of ₹ 166 crore for additional spare parts recommended by the DEC China and BGR Energy.

The project cost was revised from ₹ 4600 crore in June 2007 to ₹ 7723.70 crore in May 2011 and finally ₹ 9479.51 crore in March 2014. The project cost revised in March 2014 was approved by the State Government in August 2014. However, the Company did not include the cost of additional spare parts in the project cost.

The Clause 16 (6) of the RERC ‘Terms and Conditions for Determination of Tariff Regulations, 2014’ also allowed capitalization of initial spares upto 2.5 *per cent* of the capital cost upto the cut-off date. As such the Company was authorised to capitalize an expenditure of ₹ 236.99 crore²⁰ towards initial spare parts. However, the Company capitalized only ₹ 51.21 crore towards the cost of mandatory spares.

The Company, therefore, understated the project cost by ₹ 166 crore and failed to avail 20 *per cent* equity assistance of ₹ 33.20 crore from the State Government.

The Company stated that the Board accorded approval for purchase of spare parts subject to the condition that the cost of spare parts might be booked against the revised project cost of KaTTP (₹ 9479.51 crore) to the extent possible and the remaining cost of spares over and above the project cost, if any, might be taken under Operation and Maintenance budget of the unit as per regulatory norms. The fact remained that the company could have capitalized the cost of spare parts upto 2.5 *per cent* of the project cost as per regulation which was not done causing understatement of the project cost and non-receipt of 20 *per cent* equity from the State Government.

Non-availing of fiscal benefits under Mega Power Policy

2.34 The Ministry of Power (MoP), GoI introduced (November 1995) the Mega Power Project (MPP) Policy aimed at improving the overall power supply scenario in the Country by setting up power plants. The policy provided certain benefits to MPPs such as exemption from Excise and Custom duty; tax holiday for any block of ten years within the first fifteen years; and exemption from sales tax and other local levies. It was considered that these concessions would bring down the tariffs and provide much needed relief to

20 2.5 *per cent* of ₹ 9479.51 crore.

the State Electricity Boards from rising cost of power generation, both in public and private sector.

As per the MPP policy, projects having capacity of 1000 MW or more were eligible for concessions after complying with some other conditions like constitution of Regulatory Commission; inter-state sale of power; and tendering through International Competitive Bidding (ICB) route.

The KaTPP was eligible for availing fiscal benefits under the MPP policy as the combined capacity of the project was 1200 MW and tenders were invited on ICB basis. However, the Company never explored possibilities and was, therefore, deprived of fiscal benefits which tentatively worked out to ₹ 431.30 crore towards taxes and duties on off-shore supplies. Further, the KaTPP would have also been exempted from sales tax/VAT levied by the GoR.

The RERC while determining the tariff for Unit-I asked the Company to clarify the admissibility of MPP status for the project and efforts made in this direction for availing benefits of the MPP policy. The Company did not furnish (May 2016) details to the RERC in this regard.

It is worth mentioning that other thermal plants (1320 MW Chhabra Thermal Power Plant and 1320 MW Suratgarh Thermal Power Station) of the Company were granted MPP status by the MoP.

The Company stated that inter-state sale of power was a mandatory condition for availing benefits under MPP policy which was not fulfilled. The reply was not convincing because the Board of the Company directed (January 2007) to explore possibilities for inter-state sale of power but no action was taken. Further, the GoI had removed (December 2009) the condition of inter-state sale of power but the Company did not explore the possibilities for availing benefits under MPP policy.

Conclusions and Recommendations

The Kalisindh Thermal Power Project (KaTPP) had significant time and cost overruns. The actual cost (₹ 9479.51 crore) of commissioning of the project exceeded the estimated cost (₹ 4600 crore) by 106.08 *per cent*. The cost overrun was mainly attributed to increased cost of 'Engineering, Procurement and Commissioning' contract; water storage system; Railway siding; interest and finance cost due to time overruns and execution of works not envisaged in Detailed Project Report (DPR).

The contractual commissioning period of Unit-I and Unit-II was 8 October 2011 and 8 January 2012 respectively. The Units were commissioned after delays of 31 months and 42 months on 7 May 2014 and 25 July 2015 respectively. Delay in completion of the project was attributed to delay (seven months) in obtaining environmental clearance from Ministry of Environment and Forest (MoEF), Government of India and non-adherence to the time schedule in completion of various major activities by BGR Energy. The Board discussed (March 2009 to May 2014) the issue of delay in completion of the project several times but deferred levy of Liquidated Damages (LD) six times between March 2009 and May 2014.

We recommend that the Company should identify the delay attributable to BGR Energy and recover LD as per the terms and conditions of the contracts.

The contract price of BGR Energy was firm and the Company was required to make payments for off-shore supplies at a firm rate of ₹ 39.59 per US \$ as per various clauses of 'Instructions to Bidders' and 'General Conditions of Contract' (GCC). Any variation on account of exchange rate was to be borne by BGR Energy. However, the Company purchased one US \$ at rates ranging from ₹ 44.32 to ₹ 66.88 and made payments in US \$ without recovering exchange rate variation of ₹ 295.29 crore. This also resulted in extra burden of ₹ 19.40 crore on the Company towards payment of taxes to the Central/State Government. Further, the Company refunded labour cess of ₹ 48.21 crore to BGR Energy in violation of the clauses of work order and notification (27 July 2009) issued by the State Government.

We recommend that the Company should review the payments made to BGR Energy and recover excess payments incurred towards exchange rate variation as per the tender terms/GCC. The Company should also recover the amount of labour cess refunded to BGR Energy.

During meetings (24 February 2007 and 26 May 2007) held between the Company, Energy Department (GoR) and Water Resources Department (WRD) of the State Government, the WRD agreed to share 60 per cent of the cost of construction of Dam on Kalisindh River. The WRD did not incur any expenditure on construction of Dam and in addition also charged prorate charges from the Company.

We recommend that the Company should take up the matter with the State Government/WRD and recover the cost of Dam to be shared by the WRD and the prorate charges.

The Company could not adhere to the operational parameters fixed by Rajasthan Electricity Regulatory Commission (RERC)/Central Electricity Authority (CEA) as regards plant load factor; station heat rate; auxiliary consumption; plant availability due to non-stabilization of Units after commissioning; forced outages; technical problems, backing down of plant due to the instructions of State Load Dispatch Centre; etc.

The Company had not established environment management cell at the KaTPP. The Company had also not installed equipment at the KaTPP to measure air and noise pollution levels prescribed by MoEF. Further, the stack emission norms prescribed by MoEF were also not adhered to.

We recommend that the Company should establish environment management cell and install equipment to measure air and noise pollution levels at KaTPP. Further, the air pollution standards, noise levels and stack emission norms prescribed by the MoEF should be adhered to.

The Company had defaulted in payment of loan installments and had to pay penal interest and was also deprived of rebate from Power Finance Corporation.

The Company did not make efforts to seek benefits under the Mega Power Project Policy of the Government of India. It also did not seek exemption from the Government of Rajasthan from payment of entry tax.

We recommend that the Company should explore possibilities to avail benefits under the policies of Government of India and Government of Rajasthan.

CHAPTER III

Performance Audit relating to Statutory Corporations

Chapter III

Performance Audit relating to Statutory Corporations

Rajasthan State Road Transport Corporation

3 Performance Audit (IT) on Computerisation of ticketing system

Rajasthan State Road Transport Corporation (Corporation) outsourced (May 2011) the work of 'Online Reservation System' (ORS); integration of Electronic Ticket issuing Machines (ETIMs) with ORS; and preparation of Radio Frequency Identification (RFID) smart cards to Trimax IT Infrastructure and Services Limited, Mumbai (Service Provider). The Service Provider implemented the ORS in May 2011 but the integration of ETIMs with ORS was pending (August 2016).

The Performance Audit involved analysis of the electronic data of ORS; ETIMs and RFID smart cards pertaining to the period 2014-15 and 2015-16 (November 2015) and contractual performance of the Service Provider. The audit findings pertaining to ETIMs are based on eight selected depots out of 57 depots.

The audit findings mainly highlight deficiencies in project management and system design. The project management highlights deficiencies in planning and implementation; and project monitoring and evaluation. The system design deficiencies include non-integration of ETIMs with ETIM server; insufficient validation controls; and non-mapping of business rules. The project management and system design deficiencies had financial implication on the revenue of the Corporation. The financial issues relate to under recovery of fare; unauthorised concessions allowed to the passengers; and payments to the service provider in violation of the clauses of the work order/service level agreement.

Project Management

Planning and implementation

The Corporation did not prepare IT policy, IT security policy, password policy and policy for change control management. The IT cell of the Corporation had also not constituted a planning/steering committee with clear roles and responsibilities to monitor each functional area of the Integrated Transport Management System. Besides, the Corporation did not have a framework for IT policies and procedures during the development of ORS and preparation of RFID smart cards. The modifications made by the Service Provider in the database as regards change in routes; fare in the software; security of IT assets; etc. were not subject to any supervisory control. In absence of a password policy, the systems installed at booking windows accepted passwords of any length without combination of alpha numeric and special characters. There was no system in vogue to ensure change of password by the users after different time intervals in order to minimise the risk of unauthorised access.

Further, the Corporation did not have proper business continuity and disaster recovery plan because the primary data centre as well as the disaster recovery site for ETIM application was set up in the same seismic zone (depot level). The data of ETIMs would not be retrieved in case of any disaster at the depot level. The Corporation also issued 'Pilot Acceptance Test' and 'User Acceptance Test' certificates to the Service Provider without evaluation of the application software.

Project Monitoring and Evaluation

The project monitoring and evaluation was deficient which led to release of payments to the Service Provider in violation of the clauses of agreement/service-level agreement and non-reconciliation of operating revenue.

System Design deficiencies and insufficient validation control

The system design deficiencies and insufficient validation control resulted in discrepancies in allowing concession to female and senior citizen passengers viz. allowing concession outside State; concession to ineligible senior citizens; Mahila concession to male passengers and free journey to female passengers instead of only on Mahila divas and Raksha Bandhan. It also led to discrepancies in allowing concession to student and monthly pass passengers viz. allowing journey more than once in a day; allowing free travel on Sunday and allowing journey on zero balance monthly passes without receipt of fare. Inadequate mapping of rules led to non-charging of fare at prevailing tariff; under recovery of fare in inter-state buses and non-recovery of IT fees/accidental compensation surcharge/toll tax/human resource surcharge on free journey tickets. The system design deficiency also resulted in non-recovery of reservation charges and non/under recovery of cancellation charges.

The software in violation of the business rules allowed allotment of same seat numbers to two passengers; journey to RFID card holders in higher class than the eligible class; 'Passenger Name Record' number with less than 18 digits; issue of more than one cancellation order against one ticket; journey on expired RFID cards and concession without valid RFID card; etc.

Audit Recommendations

Audit recommends the Corporation to formulate and implement a clear and comprehensive IT policy covering various aspects such as IT security policy; password management; etc.; set-up primary data centre and disaster recovery site for the data of ETIMs at different locations; build adequate input controls and validation checks to ensure correctness of input data and output results as per the business rules and needs of the Corporation; ensure mapping of business rules in accordance with the organization rules/policies, manuals, Government directions, etc; ensure functioning of General Packet Radio Service module for real time integration of the ticketing and financial data of ORS and ETIMs; make operating procedures of ETIMs simpler to increase operational efficiency and reduce input errors; and reconcile the IT data and accounting data to avoid any leakage of revenue.

Introduction

3.1 Rajasthan State Road Transport Corporation (Corporation) was established (1 October 1964) under Road Transport Corporation Act, 1950 with the mandate to provide an efficient, adequate, economical and properly coordinated road transport services to the people of the State (Rajasthan). The Corporation works under the administrative control of the Transport Department of Government of Rajasthan (State Government). The management of the Corporation is vested with Board of Directors (BoD) comprising Chairman, Managing Director and Directors appointed by the State Government. As on March 2016, there were seven Directors on the Board of the Corporation. The day to day operations are carried out by the Managing Director with the assistance of Executive Directors, Financial Advisor, General Managers, Chief Production Managers and Chief Managers.

As on March 2016, the Corporation had 57 accounting units including three workshops and head office. The Corporation operated Volvo, AC, deluxe, express and ordinary buses on various routes within and outside the State through 57 depots including two Central Bus Stands (CBS) at Jaipur and Ajmer and one depot located at New Delhi.

Financial and operational performance

3.2 The operational revenue, non-operational revenue and profit and loss of the Corporation during 2014-15 and 2015-16 were as below:

(₹ in crore)

Particulars	2015-16 (unaudited)	2014-15
Operational revenue	1715.55	1702.66
Non-operational revenue	51.46	131.13
Gross revenue	1767.01	1833.79
Expenditure	2036.43	2462.27
Profit/loss for the year	(269.42)	(628.48)

There was a meagre increase in the operational revenue during 2015-16 as compared to 2014-15 due to increase in fares. However, the non-operational revenue decreased (60.76 per cent) from ₹ 131.13 crore to ₹ 51.46 crore during this period. The loss incurred by the Corporation during 2015-16 decreased (57.13 per cent) from ₹ 628.48 crore to ₹ 269.42 crore in 2014-15.

The operational results of the Corporation during 2014-15 and 2015-16 as regards buses operated, distance covered and passengers travelled were as below:

Particulars	2015-16	2014-15
Number of buses owned by the Corporation	4343	4493
Number of buses hired from private parties	186	211
Total fleet	4529	4704
Average operating Kilometers per day (in lakh)	16.13	17.16
Average number of passengers travelled per day (in lakh)	9.26	9.81

The number of buses operated, average operating kilometers of the buses per day and average number of passengers travelled per day decreased during 2015-16 as compared to the year 2014-15.

IT activities in the Corporation

3.3 The Corporation started ticket booking/reservation at Central Bus Stand Jaipur on trial basis from January 2004 through a software developed by Polytech Computer Education. The Corporation decided (2011) to implement an 'Integrated Transport Management System' (ITMS) which included:

- Online Reservation System (ORS); and integration of Electronic Ticket issuing Machines (ETIMs) with ORS;
- preparation of Radio Frequency Identification (RFID) smart cards;
- preparation of mobile application for the Corporation;
- Vehicle Tracking and Passenger Information System (VT & PIS); and
- Passenger Audio Announcement System (PAAS).

The Corporation outsourced all the above activities on 'Build, Own, Operate and Transfer' (BOOT) basis. The Corporation created (June 2013) an IT cell to monitor the progress of ITMS.

The work relating to ORS; integration of ORS with existing ETIMs; and preparation of RFID smart cards was awarded to Trimax IT Infrastructure and Services Limited, Mumbai (service provider). The service provider was required to procure and install hardware equipment along with design and development of web based application software and their successful operation. Further, the Service provider was also responsible for maintaining the integrity, security and backup of the data and applications. The service provider implemented the ORS in May 2011 but the integration of ETIMs with ORS was pending (August 2016) even after replacement of existing ETIMs of the Corporation by the ETIMs of service provider. The Corporation in its reply stated that the functionality of General Packet Radio Service (GPRS) was subsequently discontinued due to non-availability of network on the routes. The Corporation, however, did not submit any evidence in support of its decision to discontinue GPRS.

As regards remaining activities of the ITMS, the service providers had completed and launched (October 2015) the mobile application while the works of VT & PIS and PAAS were under progress (August 2016).

Software implemented in the Corporation

Online reservation system

3.4 The online reservation system (ORS) implemented by the service provider included Public Online Reservation System (PORS) and reservation of tickets by the Corporation at the booking windows. The PORS was hosted on the web portal of the Corporation and the general public was allowed to reserve tickets 30 days in advance to the scheduled departure of a bus. The

facility of ticket reservation was available upto 30 minutes prior to the scheduled departure of bus.

RFID smart cards

3.5 The State Government allowed (27 June 2012) free/concessional travelling to 18 categories of persons under the Rajasthan Guaranteed Delivery of Public Services Act, 2011. Persons seeking concession under these categories were required to submit an application to the Corporation for issue/renewal of RFID card in the prescribed format along with the supporting documents which mainly include proof of identity, address, date of birth and a photo. The details of the applicant were entered into the online RFID module at the depot level and forwarded to the IT cell. The IT cell verified the details and sent them to the service provider for preparation of RFID cards. The details entered by the service provider in the master data were again re-checked by the IT cell on receipt of the RFID card.

Ticketing through ETIMs

3.6 The tickets are issued by the conductors and booking agents/clerks through ETIMs issued to them by concerned depots of the Corporation. The ETIMs have preloaded software containing fare list, route chart with bus stop numbers, concession codes and other levies. The tickets issued through ETIMs contain category of ticket, to and fro destination, total fare with break up, date of journey, ticket number, bus service and name of depot. The conductors were required to connect the ETIMs with the main server of the depot at the time of arrival on duty to upload the route details and fare list of the route. Similarly, on completion of the trip, the conductors had to plug the ETIMs with the server located at the depot to take print out of the summary report of total tickets issued and amount collected for depositing to the cash branch.

Scope of Audit

3.7 The audit of computerisation of ticket booking/reservation system was last incorporated (paragraph 4.11) in the Report (Commercial) of the Comptroller and Auditor General of India for the year ended 31 March 2005, Government of Rajasthan, hereinafter called as Audit Report 2004-05. The paragraph was discussed by the Committee on Public Undertakings (COPU) on 22 May 2008 and recommendations were placed in the State Legislature on 11 March 2011.

The COPU recommended that the Corporation should prepare a documented IT policy; password policy; and policy for change control management in the software. The Corporation assured COPU to implement the recommendations.

The present Performance Audit (IT) involved review/analysis of the electronic data of ORS; ETIMs and RFID smart cards. Besides, the compliance of the terms and conditions of the work order by the service provider for implementation of ORS, ETIMs and preparation of RFID smart cards was also reviewed.

The results of the Performance Audit (IT) are based on the analysis of data of ORS; ETIMs in selected depots; and RFID smart cards prepared by the service

provider, pertaining to the period 2014-15 and 2015-16 (November 2015). The compliance of recommendations made by COPU was also reviewed.

Audit objectives

- 3.8** The Performance Audit (IT) was carried out to assess whether:
- the online reservation system and issue of tickets through ETIMs were adequate to fulfill the business needs of the Corporation and needs of the passengers;
 - the IT system was effective and had adequate validation checks to minimize the business risks;
 - internal control and internal checks existed to ensure proper functioning, monitoring and safety of IT assets ; and
 - recommendations made by COPU were complied.

Audit criteria

- 3.9** The audit criteria adopted for achieving the audit objectives were derived from:
- Rules/guidelines/notifications issued by the State Government;
 - The Motor Vehicles Act, 1988 and Rules there under;
 - The terms and conditions of the agreements, work orders and other directions issued to the contractors/software developers/implementing agencies;
 - Accounting Policies, Business Rules and procedures adopted by the Corporation; and
 - Management Information System (MIS), Manuals and other orders/circulars issued by the Corporation.

Audit Methodology and sample selection

- 3.10** The methodology adopted for attaining audit objectives with reference to audit criteria consists of:
- explaining audit objectives and audit criteria to the Government/Corporation during entry conference (5 February 2016);
 - collection of electronic data from the Corporation for the period 2014-15 and 2015-16 (November 2015) and its analysis through Interactive Data Extraction and Analysis (IDEA) software,
 - review of records at the Head Office of the Corporation and selected depots during November 2015 to June 2016;
 - raising audit queries and interaction with the management of the Corporation/service provider;

- issuing questionnaires to elicit information for evaluating controls in application software and to ascertain completeness, regularity and consistency of data;
- issue (June 2016) of draft Performance Audit (IT) report to the Government/Corporation for comments and replies thereon; and
- discussion with the Government/Corporation on the audit findings during exit conference (2 September 2016).

The Performance Audit Report has been finalised after considering the replies of the Corporation on audit queries and draft Performance Audit Report (August 2016).

3.11 Out of 57 operational depots, we initially selected seven¹ depots on the basis of highest operational revenue earned by them during 2014-15 and 2015-16 (November 2015). During entry conference, the Managing Director requested to select a loss making depot in place of CBS (Jaipur). Subsequently, Kota depot was selected on the request of management in place of CBS (Jaipur). One additional depot (Bharatpur) was also selected on the basis of its remote geographical location. The performance Audit (IT), therefore, involved selection of eight depots out of 57 depots.

Audit findings

3.12 Audit findings based on the scrutiny of records and analysis of electronic data mainly highlight deficiencies in general controls, system design, mapping of business rules, application controls, *etc.* having financial implication on the revenue of the Corporation. The financial implication mainly involves issues relating to short/non-recovery of fare; unauthorised concessions allowed to the passengers; and payments to the service provider in violation to the clauses of the work order/service level agreement.

Project Management

Planning and implementation

IT Policy and IT security policy

3.13 A well formulated and documented IT policy is essential to assess the time frame, set key performance indicators and for cost benefit analysis for development and integration of various activities of application software.

The Corporation in response to COPU's recommendation on paragraph 4.11 of the Audit Report 2004-05 assured COPU that a documented IT policy; password policy; and policy for change control management in the software would be prepared. The Corporation had, however, not prepared an IT policy, IT security policy, password policy and policy for change control management. Further, the IT cell of the Corporation had also not constituted a

1 Bikaner, Hanumangarh, Jaipur, Jodhpur, Kota, Sikar and Udaipur.

planning/steering committee with clear roles and responsibilities to monitor each functional area of the ITMS in a systematic manner. Besides, the Corporation did not have a framework for IT policies and procedures during the development of ORS and preparation of RFID smart cards.

The modifications made by the service provider in the database as regards change in routes, fare in the software, security of IT assets, *etc.* were not subject to any supervisory control. The possibilities of unauthorized changes in master database, therefore, cannot be ruled out.

The Corporation accepted the facts of non-existence of policies as mentioned above.

Business continuity and disaster recovery plan

3.14 Business continuity and disaster recovery plans are critical to the operations of the Corporation because of its reliance on computerised ticketing system. It was, therefore, essential for the Corporation to prepare and implement a disaster recovery and business continuity plan, outlining the action to be undertaken immediately after a disaster and to effectively ensure that information processing capability can be resumed at the earliest.

We noticed that the primary data center for the online application data was established at the State Data Center (SDC), Jaipur and a disaster recovery site at Bangalore in the premises of the service provider. However, the backup data of the ETIM application was neither kept in another seismic zone nor sent to the SDC. The backup data of depots were maintained in the same depot. The risk of non-recovery of ETIM data in the event of a disaster was very high. The Corporation accepted the facts relating to non-existence of business continuity and disaster recovery plan.

Logical access controls

3.15 Logical access controls are designed to protect the software from unauthorized access. We observed that in absence of a password policy, the systems installed at booking windows accepted passwords of any length without combination of alpha numeric and special characters. There was no system in vogue to ensure change of password by the users after different time intervals to minimise the risk of unauthorised access.

The Corporation accepted the facts regarding lack of logical access controls.

Internal Control

3.16 The Corporation planned (2010) to implement the ITMS project with a view to provide door step facility to the passengers through online reservation of tickets and real time reconciliation of the revenues generated through ORS and ETIMs. Effective implementation of ITMS would have enabled the Corporation to trace the sources of leakage of revenue through route wise/bus wise/conductor wise analysis of the data. Besides, the GPRS module would have also provided safety and security to the passengers and Corporation's assets through real time location of buses.

We noticed that there was no assessment as regards need and sector based Service Requirement Standards (SRS); Functional Requirement Standards (FRS); user acceptances; application software requirements; and change

control management in the application software and master data. Lack of adequate IT policies and non-assessment of the project at the development stage as per the needs of the Corporation led to inadequate/non-mapping of business rules and policies; lack of controls; non-validation of proper fields by the software; and generation of incorrect reports.

The Corporation failed to evaluate the application software as per the terms and conditions of work order/service level agreement entered with the service provider and issued 'Pilot Acceptance Test' and 'User Acceptance Test' certificates.

Project Monitoring and Evaluation

Undue benefit to the Service Provider

3.17 The Corporation placed a work order and executed (11 May 2011) a service level agreement (SLA) with Trimax IT Infrastructure and Services limited (Service provider) for a period of five years to study, develop, supply, install, test, train, and maintain online reservation system application software; and to integrate existing² ETIMs as part of ITMS.

Schedule 3 of SLA provided the terms and conditions of payments to the Service Provider which stipulated that the Corporation would make monthly payments on the basis of number of tickets/transaction. However, the payment for tickets sold through ETIMs was to be made after successful operation of the GPRS module in all the ETIMs of the Corporation. Further, Clause 32 of the SLA provided that the Service Provider was not allowed to utilise the blank space on the pre-printed tickets or tickets issued through ETIMs for any type of advertisement.

The GPRS module was essential for real time integration of the ticketing and financial data of ORS and ETIMs; downloading the desired data of advance booking details to ETIMs at depots; up-gradation of ETIMs and their online operations; revenue reconciliation; online MIS and decision support system as per the requirement of the Corporation.

We noticed that the GPRS module was not functional in the ETIMs since the beginning of the project. The Corporation, however, released payments of ₹ 15.90 crore to the Service Provider since 2011 for tickets issued through ETIMs. These payments were in violation of schedule 3 of the SLA. We further noticed that the ORS allowed ticket booking for a maximum number of six passengers in one ticket/transaction but the ETIMs issued separate tickets for every passenger. The ETIMs, therefore, issued multiple tickets to a family or a group of persons performing journey to the same destination and this led to excess payments to the Service provider.

It was also noticed that the service provider printed the tag line 'Powered by Trimax' on the tickets issued through ETIMs in violation of Clause 32 of the SLA.

The Corporation replied that the GPRS functionality was provided by the service provider in the ETIMs but due to non-availability of proper network,

2 Corporation had provided 5000 ETIMs to the service provider.

the ETIMs were un-responsive, taking more time in issue of tickets and therefore, the functionality was discontinued.

The fact remains that as per the objectives of the ITMS project and agreement executed with the service provider, the GPRS module was the key requirement. Non-functionality of the GPRS module defeated the basic objective of ITMS and the payment to the service provider was in violation of the agreement.

Non-reconciliation of operating revenue

3.18 The revenue collected through sale of tickets by the ORS and ETIMs should reconcile with the revenue accounted in books of accounts to ensure that all the revenue had been collected from the conductors and accounted and that there was no leakage of revenue.

We noticed that there was no system to reconcile the revenue collected as per e-ticketing system with the accounts. During 2014-15, the net operating revenue collection through sale of tickets by ETIMs and ORS as per IT data was ₹ 1547.52 crore whereas the same as per audited accounts was ₹ 1511.48 crore (after excluding all revenue not accounted in ETIMs and ORS). The difference of ₹ 36.04 crore was not reconciled by the Corporation. The ETIMs and ORS, therefore, showed more revenue than that accounted in the books indicating non-deposit of revenue by the conductors at depot level.

Our analysis further disclosed that head wise figures of operating revenue as per IT data also did not match with the corresponding figures depicted in the books of accounts. For example, the revenue from renewal of RFID cards as per IT data was ₹ 19.82 crore in 2014-15 but the books of accounts stated the same at ₹ 12.94 crore.

The depot wise collection of the operating revenue as per the IT data also did not match with the books of accounts. We test checked the operating revenue of Jaipur depot for the month of January 2016 and found that revenue as per IT data was ₹ 3.68 crore while as per the books of accounts, it was ₹ 3.45 crore.

Non-reconciliation of the revenue as per IT data and books of accounts defeated the purpose of implementing the ITMS project.

The Corporation stated that action would be taken shortly for reconciliation of the data.

System Design deficiencies and insufficient validation control

3.19 In view of large fleet of buses operated by the Corporation within and outside the State, issue of tickets through ORS and ETIMs as per the prevailing rules is critical as wrong incorporation/application of rules could severely hamper the revenues of the Corporation. Therefore, the software should be designed to ensure mapping of business rules/policies, validation of input data and output results as per the business rules and needs of the Corporation. Any deficiency in the designing of application software, insufficient validation control and non/inadequate mapping of business rules may cause to financial loss to the Corporation. The instances of system design

deficiencies, non/inadequate mapping of business rules/policies and insufficient validation controls, as discussed in succeeding paragraphs, have resulted in to:

- discrepancies in allowing concession to female passengers;
- discrepancies in allowing concession to senior citizen passengers;
- discrepancies in allowing concession to student and monthly pass passengers;
- unauthorised concession/journey against RFID cards;
- under recovery of fare;
- non/under recovery of reservation/cancellation charges, and
- other deficiencies.

Discrepancies in allowing concession to female passengers

Free journey to female passengers

3.20 The Corporation issued (27 February 2015 and 20 August 2015) directions to allow free journey to female passengers within the geographical limits of the State only on 'Mahila Divas (8 March) and 'Raksha Bandhan'. The tickets were to be issued at 'Zero' value with concession code 'LAD' for free journey.

The directions were, however, not adequately mapped in the software. Data analysis disclosed that the sampled depots issued 5479 tickets to the female passengers with "zero" value during 2014-16 for journey on days other than the 'Mahila Divas' and 'Raksha Bandhan' which caused loss of ₹ 2.09 lakh.

Besides, the Corporation also issued 18346 "zero" value tickets to the female passengers for journey outside the State on 'Mahila Divas' and 'Raksha Bandhan' in violation of the directions. This caused loss of ₹ 9.14 lakh to the Corporation.

The Corporation accepted the facts and stated that recovery was being made from the conductors and the service provider had been directed to make necessary modifications in the software to prevent such instances.

Rebate to female passengers on journey performed outside the State

3.21 The State Government notified (June 2012) certain services under 'The Rajasthan Guaranteed delivery of Public services Act, 2011' which provided concessional travel to the female passengers of the State. Accordingly, the Corporation allowed (21 June 2013) 30 *per cent* rebate to the female passengers in fare of all types of buses without any restriction of journey within and outside the State. Subsequently, the Corporation restricted (28 April 2014) concession for the journey to be performed within the territory of the State only.

The Corporation did not evolve any mechanism to ensure that rebate was allowed only to the female passengers of Rajasthan origin. Further, the directions of allowing rebate for journeys only within the territory of the State

were also not mapped in the software and as a result the ETIMs issued tickets to female passengers considering 30 per cent rebate in all conditions. Data analysis disclosed that the Corporation issued 5.51 lakh tickets to female passengers during the period from 1 May 2014 to 30 November 2015 for journeys outside the territory of the State after providing 30 per cent rebate which caused under recovery of fare of ₹ 73.34 lakh. Short recovery of fare in cases where the female passengers performed the journey in combination with the journey inside the State could not be worked out due to non-availability of segregated data of the combined journey.

The Corporation stated that rebate was not allowed to the female passengers for journeys performed outside the territory of the State. The reply was not correct as the cases pointed out relates to issue of concessional tickets through ETIMs to the female passengers for journeys performed exclusively outside the territory of the State.

Concession for female passengers not mapped to gender

3.22 The Corporation provided 30 per cent concession to the female passengers in base fare of all type of buses.

The data of online reservation system through booking windows disclosed that 55.50 lakh tickets with concession meant for females were issued to male passengers during 2014-16. Besides, the online reservation system data (web portal and booking windows) indicated that 40.85 lakh tickets were issued to female passengers but the system did not allow the due concession of 30 per cent.

This showed that the application software failed to validate the field indicating gender of the passenger and allowed concession only on the basis of code (MCT) prescribed for female concession. This resulted in allowing concession of ₹ 11.49 crore to male passengers against female concession code.

A snapshot of the database indicating female concession allowed to male passengers is shown below.

TICKET_NO	ISSUE_DATE	ALI_IN_YEAR	PASSENGER_SEX	CONCESSION_CODE	HOW_MUCH_AMT
427	121576459 31-Dec-15	2015-2016	M	MCT	58.00
428	121576458 31-Dec-15	2015-2016	M	MCT	58.00
429	121576456 31-Dec-15	2015-2016	M	MCT	51.00
430	121576445 11-Dec-15	2015-2016	M	MCT	64.00
431	121576443 11-Dec-15	2015-2016	M	MCT	22.00
432	121576441 11-Dec-15	2015-2016	M	MCT	16.00
433	121576424 11-Dec-15	2015-2016	M	MCT	11.00
434	121576420 11-Dec-15	2015-2016	M	MCT	73.00
435	121576387 11-Dec-15	2015-2016	M	MCT	81.00
436	121576386 11-Dec-15	2015-2016	M	MCT	25.00
437	121576352 11-Dec-15	2015-2016	M	MCT	104.00
438	121576339 31-Dec-15	2015-2016	M	MCT	24.00
439	121576325 31-Dec-15	2015-2016	M	MCT	51.00
440	121576314 11-Dec-15	2015-2016	M	MCT	51.00

The Corporation stated that the reports generated by the service provider wrongly depicted MCT concession in case of male passengers and there was no loss to the Corporation. It added that the service provider had been directed to rectify the problem.

The reply is not convincing as the data had been extracted from the server and not from the reports of service provider. Further, the software was incapable to validate the gender with the concession code.

Discrepancies in allowing concession to senior citizen passengers

Senior citizen concession to ineligible persons

3.23 The Corporation issued (20 April 2011) a circular stipulating the age of senior citizens as 60 years. The senior citizens of the State were allowed 30 *per cent* concession in the base fare against the RFID card issued by the Corporation.

Persons seeking concession under senior citizen category were required to submit proof of age along with other requisite documents for preparation of RFID cards. The details of the applicant were entered into the online RFID module at the depot level and forwarded to the IT cell. The IT cell verified the details and sent them to the service provider for preparation of RFID cards. The details entered by the service provider in the master data were again re-checked by the IT cell on receipt of the RFID card.

Data analysis disclosed that the Corporation issued RFID cards under senior citizen category even to the persons whose age ranged between 20 to 59 years. The deficiency occurred due to inadequate mapping of rules which led to non-validation of age by the software while processing the RFID card for senior citizen category. This also indicated improper verification of details by the depots and IT cell.

During 2014-16, the online reservation system and the ETIMs in selected depots issued 7.27 lakh and 0.13 lakh tickets respectively to RFID card holders under senior citizen category though they had not attained the age of 60 years. Lack of proper controls in the software and failure of internal control mechanism as regards verification of the age of persons claiming concession under senior citizen category led to unauthorised concession of ₹ 1.64 crore against these tickets.

The Corporation stated that the RFID cards were issued after proper verification of the documents submitted by the applicants and discrepancies might have occurred due to incorrect input by the employees. The fact remains that the software was not programmed to validate the requisite age for issue of RFID card under senior citizen category. Further, the internal control mechanism failed at multiple levels to verify the age of the applicants.

Concession to Senior Citizens on journey performed outside Rajasthan

3.24 The Corporation allowed concession to Senior Citizens on the same lines as given to female passengers discussed in para 3.21 above.

The service provider, however, did not incorporate the directions (28 April 2014) in the software. Hence, the ETIMs issued concessional tickets to the Senior Citizens for journeys even outside the territory of the State. Data analysis disclosed that the selected depots issued 36841 concessional tickets to the Senior Citizens for journeys exclusively outside the State between 1 May 2014 and 30 November 2015. This resulted in under recovery of fare of ₹ 5.48 lakh. Short recovery of fare in cases where the Senior Citizens performed the journey in combination with the journey inside the State could not be worked out due to non-availability of segregated data of the combined journey.

The Corporation stated that no concession was allowed to the Senior Citizens for journeys performed by them outside the State and that the cases pointed out in the paragraph were of combined journey wherein concession was allowed upto the journey performed in State only.

The reply was not correct as the data of ETIMs showed that concessional tickets were issued to the Senior Citizens for journeys performed exclusively outside the territory of the State.

Discrepancies in allowing concession to student and monthly pass passengers

Allowing free travel on Sundays

3.25 The Corporation issued monthly passes to the passengers with facility to travel on all week days including or excluding Sunday. The ETIMs were required to issue 'Zero' value tickets against such passes depending upon their category. Passengers with monthly passes under 'except Sunday' category were required to pay full value of the ticket for travelling on Sundays.

We noticed that the software was not competent to correlate the date with the day of the week on which a ticket was issued to the passenger. As a result, the ETIMs issued 'zero' value tickets on Sundays to 8758 monthly passes during 2014-16 despite the fact that the passes were not eligible for free travel on Sundays. This deficiency in the software caused loss of ₹ 9.03 lakh to the Corporation in sampled depots.

The Corporation accepted the facts and stated that recovery from the concerned officials was under process. It further stated that the facility of monthly pass (except Sunday) had been discontinued since July 2016.

Allowing journey on Zero balance monthly passes without receipt of fare

3.26 Monthly passes could be obtained from the Corporation on payment of prescribed charges. These passes would, however, have a zero balance and could not be used until they were re-charged with an advance amount. The advance amount was to be recovered on the basis of the source and destination mentioned in the pass and the type of bus the passenger preferred to travel in. On use of such passes by the cardholders, a zero value ticket was issued.

Data analysis disclosed that sampled depots issued and activated 4541 monthly passes without obtaining the requisite amount of advance fare of ₹ 42.63 lakh and 3662 zero value tickets were also issued on these cards during 2014-16. The value of tickets for the journey performed by these cardholders amounted to ₹ 0.92 lakh.

A snapshot of the database indicating allowing journey on monthly passes without receipt of fare is shown below.

RAC CUSTOMER DETAIL					
Unique Customer ID	00109000189285	Depot Name	BRANER	Regist/Activ Date	02-05-2013 17:01:09
Time Passes	0001700000	Mobile Name		Card No.	
Gender	MAL.E	E-Id		Mobile	9468534978
ADDRESS	SUBBIRSHANKA MAJOUR BRANER				
Princ ID	CTHES8	Princ Detail	P.PM000190	Emp Pass Color	N/A
Range Period	30D	Card Stage	D5040360	Registration Status	CK
Pass Type	PASS	Princ Detail	MONTHLY-DIRECT-RUNWAY	Amount	0.00
Activation Date	07-08-2015	Expiry Date	07-09-2015		
Bus Type	EXP	From Stop	BRANER	To Stop	KANASAH

Regist/Activ Report																																																																																																																																																																																																																							
Collection Date	10/04/2015																																																																																																																																																																																																																						
Conductor Name	PURSHOTAM PASREK-102539																																																																																																																																																																																																																						
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The Corporation stated that the date of activation and expiry of the card would be same at the time of preparation of new monthly passes and on recharge of the pass, the date of expiry is changed as per the period of recharge. The fact remained that the ETIMs allowed journey to the passengers without recharge of the pass.

To-and-fro journey more than once in a day allowed to monthly/student cardholders

3.27 The Corporation in view of the failure of inspection parties and conductors to adhere to the directions regarding concessional/free journey against RFID cards, issued an order (28 November 2013) that the conductor would charge full amount of the ticket in case the ETIMs display a message that the days' trip for the card had already been completed or that the card had expired or that the card was not valid for the route on which journey was being performed.

Data analysis disclosed that the ETIMs issued 10.81 lakh tickets to 5.07 lakh monthly/student cardholders for more than one journey (to-and-fro) in a day during 2014-16. Interestingly, 11266 cardholders were issued tickets more than once by the same ETIMs in a day for one side journey and 37962

cardholders were issued tickets by different ETIMs in a day for one side journey. This showed that the service provider did not map the business rules adequately and the ETIMs were not synchronized with the central server on real time basis.

The ETIMs by allowing more than one journey to monthly/student cardholders in a day caused loss of revenue of ₹ 1.20 crore.

The Corporation accepted the fact and stated that the problem occurred due to non insertion of validation checks by the service provider for which recovery from the service provider was under process. It further stated that the service provider had been directed to make necessary changes in the software.

Journey by students beyond the eligible distance as per issued card

3.28 The Corporation issued (September 2013) guidelines for issue/renewal of RFID cards to the student category. The guidelines provided that students would be allowed 50 *per cent* concession in fare and that the RFID cards should mention the academic session; and to and fro place of journey, limited upto 50 Kilometers (KMs).

The cards issued to the student category, however, did not mention these details. Data analysis disclosed that:

- The ETIMs in selected depots issued 54982 concessional tickets to 15701 student RFID card holders during 2014-16 for journeys performed by them beyond the stipulated limit of 50 KMs and therefore allowed ineligible concession of ₹ 9.90 lakh.
- The application software was not designed to validate the academic session of the student RFID card holder. The ETIMs, therefore, issued 73467 concessional tickets on 24120 RFID cards in summer vacations³ (16 May to 30 June) during 2014-16 causing loss of revenue of ₹ 8.32 lakh to the Corporation.

We observed that the Deputy General Manager (IT) informed (22 November 2013) the service provider that User Acceptance Test (UAT)/Pilot Acceptance Test (PAT) certificate would be issued only after rectification of these shortcomings. However, the Corporation issued (December 2013) UAT/PAT certificate to the service provider without ensuring resolution of the shortcomings.

The Corporation stated that it had already taken corrective action by changing the ETIM software in September 2014. The reply is incorrect as the cases pointed out by audit pertain to the period 2014-16.

3 Education calendar issued by the State Education Department.

Under recovery of fare

Non-charging of fare at prevailing tariff

3.29 The Corporation revised (27 May 2014 and 26 August 2015) the fares for different categories of buses and made them applicable from 1 June 2014 and 1 September 2015 respectively. The office orders categorically stipulated that every depot should prepare stand wise fare list and ensure that tickets through ETIMs and ORS were issued according to the revised fare.

Data analysis indicated that the revised fare was not incorporated in the ETIMs in a timely manner which led to issue of tickets by the ETIMs with old fares. It was also seen that in the ETIMs even issued tickets at fares not listed either in the old or new fare lists.

During 2014-16, the selected depots issued 98.12 lakh tickets on pre-revised fares or the fares not listed in old and new fare list. The service provider by not updating the ETIMs with the correct/revised fare caused under recovery of ₹ 13.99 crore to the Corporation.

The Corporation stated that the depots recovered correct and revised fare from the passengers. It added that the application software printed incorrect reports due to addition/deletion of some bus stops on the routes in the master data. It added that the service provider had been directed to rectify the technical issue.

The reply is not tenable as the Corporation neither maintained any record for change in the master data of route nor allocated separate route number to identify the changes in case of change in original route. It also did not produce any evidence of change in master data except one 'way bill' of Sikar depot.

Under recovery of fare in interstate buses

3.30 The Corporation operated interstate buses (express, deluxe and AC/Volvo) in accordance with the agreement entered into with the concerned State. The Corporation issued (14 May 1993) directions to all the Chief Managers to recover the increased fare in the concerned State immediately on revision of fare by that State. The directions also stipulated that the revised fare list would be collected from the station in-charge of the concerned State and a revised fare list would be prepared at the depot level without waiting for the orders of the Head Office. Further, the conductors were required to recover the revised fare during return journey after the revision of fare by the concerned State.

Analysis of the data relating to recovery of fare in Haryana and Uttar Pradesh States with respect to the revision of fares by these States during 2014-16 showed that the Corporation recovered the revised fare from a date later than the date on which the revised fare was made effective by that State. Further, the Corporation charged local bus fare for express service between the bus stops of these States. Delay in recovery of revised fare and charging of local bus fare in Haryana and Uttar Pradesh States caused under recovery of fare of ₹ 6.42 crore.

The Corporation stated that same fare policy was followed in case of interstate transport. In Haryana State, express service was not operated and, therefore, ordinary fare was charged.

The reply is not tenable as the Corporation did not even recover the lowest fare notified by Haryana State viz. for all metalled roads in plains which was applicable for all kind of services below deluxe buses. The fact remained that the Corporation did not charge the applicable fare from the date of revision of fare. The reply of the Corporation was silent on cases relating to Uttar Pradesh.

Non-recovery of IT fees, Accidental Compensation Surcharge, Toll Tax and Human Resources Surcharge on free journey tickets

3.31 The Corporation provided the facility of concessional/free travelling to certain category of persons as per the orders of the State Government. The financial burden on the Corporation as a result of concessional/free travelling was reimbursed by the State Government. The Corporation defined (July 2006 and November 2006) the process of calculating financial burden arising out of concessional/free travelling wherein the concessional base fare and applicable information technology fees, accidental compensation surcharge, toll tax and human resource surcharge were to be included in the financial burden.

We noticed that the Corporation included the taxes and surcharges in financial burden arising out of free travelling by the MLA's and MPs. However, the taxes and surcharges arising in cases where 'zero value' tickets were issued were not included in the financial burden to be claimed from the State Government. In these cases, only base fare was claimed from the State Government. Data analysis disclosed that the software was deficient to calculate the amount of taxes and surcharges where the base fare was treated as zero. This caused non-recovery of ₹ 2.05 crore towards taxes and surcharges from the State Government during 2014-16.

We further noticed that the Corporation issued (June 2011) directions for recovery of toll tax at the rate of ₹ one to three per toll booth depending upon the distance of journey. However, the data did not contain any field as regards number of toll booths on a particular route. The amount of toll tax to be recovered from the State Government against concessional travelling (except zero value tickets) was entered manually at depot level. The correctness of the amount of toll tax entered manually could not be verified in view of large number of transactions.

The Corporation accepted the fact and stated that necessary correction in the concession report had been made to get reimbursement of all taxes and surcharges from the State Government in future.

Non/under recovery of cancellation/reservation charges

Non-recovery of reservation charges

3.32 As per reservation rules (2011) of the Corporation, a passenger can seek reservation through online web portal and booking windows at the depots. The reservation facility through online web portal was available upto 30 minutes prior to the scheduled departure of a bus. However, passengers seeking reservation 30 minutes prior to the scheduled departure of a bus through online web portal or the booking window were required to pay reservation charges at the rate of ₹ two per passenger. The reservation charges

were not applicable on reservations made through booking windows within 30 minutes of the scheduled departure of a bus.

We noticed that the reservation rules were not adequately mapped in the software. As a result, in 38.82 lakh⁴ passenger tickets issued through booking windows 30 minutes prior to the scheduled departure of a bus during 2014-16, recovery of reservation charges amounting to ₹ 0.78 crore was not made.

A snapshot of the database indicating non-recovery of reservation charges is shown below.

TICKET NO.	ISSUE TN TIME	BOARDING TN TIME	ALERT DFT TIME	RESERVATION AMT	AUC TN
2	12150904 31-Dec-15	121509 31-Dec-15	121500	145	000
3	12150905 31-Dec-15	121509 31-Dec-15	121500	145	000
4	12150906 31-Dec-15	121509 31-Dec-15	121500	145	000
5	12150907 31-Dec-15	121509 31-Dec-15	121500	145	000
6	12150908 31-Dec-15	121509 31-Dec-15	121500	145	000
7	12150909 31-Dec-15	121509 31-Dec-15	121500	145	000
8	12150910 31-Dec-15	121509 31-Dec-15	121500	145	000
9	12150911 31-Dec-15	121509 31-Dec-15	121500	145	000
10	12150912 31-Dec-15	121509 31-Dec-15	121500	145	000
11	12150913 31-Dec-15	121509 31-Dec-15	121500	145	000
12	12150914 31-Dec-15	121509 31-Dec-15	121500	145	000
13	12150915 31-Dec-15	121509 31-Dec-15	121500	145	000
14	12150916 31-Dec-15	121509 31-Dec-15	121500	145	000
15	12150917 31-Dec-15	121509 31-Dec-15	121500	145	000
16	12150918 31-Dec-15	121509 31-Dec-15	121500	145	000
17	12150919 31-Dec-15	121509 31-Dec-15	121500	145	000
18	12150920 31-Dec-15	121509 31-Dec-15	121500	145	000
19	12150921 31-Dec-15	121509 31-Dec-15	121500	145	000
20	12150922 31-Dec-15	121509 31-Dec-15	121500	145	000
21	12150923 31-Dec-15	121509 31-Dec-15	121500	145	000
22	12150924 31-Dec-15	121509 31-Dec-15	121500	145	000
23	12150925 31-Dec-15	121509 31-Dec-15	121500	145	000
24	12150926 31-Dec-15	121509 31-Dec-15	121500	145	000
25	12150927 31-Dec-15	121509 31-Dec-15	121500	145	000

The Corporation stated that reservation charges are not recovered in case of ordinary, rural and express buses and the cases pointed out by audit relate to these categories of buses.

The reply is not correct as the cases pointed out by audit relate to the express and above category of buses for which reservation charges were to be recovered as per business rules of the Corporation.

Cancellation of tickets without recovering prescribed cancellation charges

3.33 The Corporation decided different rates of cancellation charges of reserved tickets depending upon the time remaining in scheduled departure of bus at the time of cancellation of a ticket.

We noticed that the online reservation system was deficient to recover the cancellation charges as per the specified rates. Data analysis disclosed that the online reservation system short recovered cancellation charges of ₹ 0.14 crore against 4362 tickets cancelled during 2014-16 due to improper mapping of rates to be levied.

4 The current booking counters issued 22.86 lakh and 15.96 lakh passenger tickets during 2014-15 and 2015-16 respectively.

The Corporation stated that in case of partial cancellation, cancellation charges were recovered only for the ticket cancelled and new ticket was generated by the system for remaining passengers and, therefore, there was no loss to the Corporation.

The reply is not convincing as the cases pointed out by audit relate to the tickets where cancellation order for a ticket had been issued by the Corporation and the cancellation charges had not been recovered as per applicable rules.

Unauthorised concession/journey against RFID cards

Journey on RFID card other than the specified category

3.34 24129 RFID cardholders of three categories (SP/CT/RAT) were issued 64835 tickets through ETIMs in selected depots under 22 categories of concession. The categories under which the tickets were issued, were different from the category for which the RFID card holder was eligible. This resulted in excess concession of ₹ 6.38 lakh on 28033 tickets issued against 11955 RFID cards because the concession under these categories was more than the concession for which RFID cardholder was eligible. This showed that the application software was deficient to validate the field indicating category under which a RFID card was issued.

The reply furnished by the Corporation did not address the audit observation.

Allowing journey to RFID card holders in higher class

3.35 The Corporation issued RFID cards to the passengers based on the type of buses (ordinary, express, deluxe, *etc.*) preferred by them. The card holders were issued tickets after these were scanned through ETIMs.

As per an order (28 November 2013) of the Corporation, cardholders with cards for lower type of buses found to be travelling in higher classes were to be treated as travelling without ticket and the passenger and conductor were liable for action as per the rules of the Corporation.

Data analysis disclosed that the ETIMs issued 73974 tickets to 12434 RFID cardholders in express buses during 2014-16 despite the fact that these cardholders were eligible for concessional travelling in ordinary buses only. The software, therefore, failed to validate the class/type of bus in which the cardholder was eligible for concessional travelling which caused a loss of ₹ 18.44 lakh to the Corporation in the sampled depots. As the cards were not printed with the type of buses, the conductors were also not in a position to verify the eligible class of travel.

The Corporation accepted the facts and stated that recoveries were being made from the service provider. Further, the service provider had been directed to amend the software to avoid such instances in future.

Journey on expired RFID cards

3.36 The database of a RFID card contains various details of the beneficiary depending upon its category *viz.* name; category; date of activation; date of expiry; card number; *etc.* The service provider inserted new expiry date in

case the validity of card was extended by the Corporation. At the time of issue of new RFID card, the date of activation and expiry is same till the card is recharged.

Data analysis disclosed that the ETIMs in selected depots issued 4.51 lakh concessional tickets against 76908 RFID cards during 2014-16 despite the fact that the validity of these cards had already expired on the date of issue of ticket. The concession (₹ 1.47 crore) allowed on these ticket was, therefore, not authorized. This indicates that the application software was not programmed to validate the date of expiry of a RFID card at the time of issue of ticket.

The Corporation stated that there was no loss because RFID cards prepared under various categories during 2014-16 were valid for whole life.

The reply did not address the issue as all the RFID cards were valid for a defined period and the beneficiaries were required to extend the validity after expiry of the validity period. The Corporation would incur huge losses in case RFID cards with unlimited validity are issued to the student and monthly cardholders.

Concession without valid RFID card

3.37 The Corporation allowed concessional/free journey to the passengers on the basis of RFID cards issued by it. Every RFID card had a 14 digit unique number which was required to be entered (manually or swiped) in the ETIM for issue of a concessional ticket. In case the tickets were booked through the online reservation system through web portal or the booking window, the passenger/booking clerks were required to enter the valid RFID card number for availing concession.

The application software designed for ETIMs and online reservation system (web portal and booking windows), however, issued concessional tickets without entering the RFID card number/valid RFID card number.

Data analysis disclosed that the ETIMs in selected depots issued 13.25 lakh concessional tickets on 1.04 lakh invalid RFID card numbers and allowed concession of ₹ 3.42 crore during 2014-16. The RFID card numbers in these cases did not match with the master data. In some cases, the conductors entered the 14 digits by repeating single number *i.e.* 0, 1 or 8, *etc.* Further, the online reservation system (web portal and booking window) issued 7.55 lakh concessional tickets under student and senior citizen category and allowed concession of ₹ 1.73 crore without RFID card numbers or against invalid RFID card numbers.

This shows that the application software did not validate the field indicating 'RFID card number' and issued concessional tickets on the codes prescribed for different categories.

The Corporation accepted the facts and stated that the conductors were allowed to enter the RFID card numbers manually till September 2014 which resulted in the discrepancies. It further stated that necessary directions had been issued at depot level for making correct entries.

The reply is not convincing as the ETIM software was incapable to validate the RFID card numbers and continued to issue tickets against invalid RFID cards even after September 2014.

Other deficiencies

Issue of zero value tickets against free journey coupons of existing/retired employees and their dependents

3.38 The Corporation facilitated free journey to the serving and retired employees and their dependents (spouse in case of retired employee) by way of issue of coupons. These coupons were not printed through the software but printed manually and had a unique eight digit alphanumeric code comprising of first two digits as alphabets and remaining as numeric digits. The serving employees were issued 50 coupons while the retired employees were issued 10 coupons for a period of one year. Each coupon was to be used once only and the conductor was required to issue 'zero value' ticket against the coupons. The software indicated the tickets issued to serving and retired employees through codes "000EM" and "00EXS" respectively. However, the employees and their dependents were also required to show identity card in addition to the coupon for availing concession. The deficiencies noticed in facilitating free journey to the serving and retired employees were as below:

- The depots did not maintain the details of the dependents of the employees as regards age; whether married and earning; *etc.* In absence of these details, the authenticity of the beneficiaries could not be verified.
- Data analysis disclosed that 1.17 lakh free tickets involving revenue of ₹ 1.06 crore were issued through ETIMs to the employees/dependents during 2014-16 with numeric codes less than or more than six digits. Besides, 22649 free tickets were issued to the employees/dependents through ORS with same irregularities but the financial impact could not be worked out due to non-availability of base fare field in the ORS data.

The Corporation described the procedure relating to free journey by employees and accepted that RFID cards were not issued to the employees. It further stated that as the conductor entered the coupon numbers manually in the ETIM, the verification of coupon numbers in ETIM was not possible. The fact remains that free tickets under employee code were issued against coupons with common numeric code causing loss to the Corporation.

Unauthorised concession in violation of directions

3.39 The Corporation issued (17 April 2015) an order discontinuing the facility of group discount (allowable to minimum four and maximum six persons travelling in group) with immediate effect. The order also permitted concessional journey to one person (*sahyogi*) along with different categories of patients/disabled persons.

We noticed that the order discontinuing the facility of group discount was belatedly incorporated in the online reservation software which resulted in

unauthorised discount of ₹ 0.22 lakh on 12876 tickets during 18 April 2015 to June 2015. Further, the sampled depots issued 10671 tickets valuing ₹ 4.13 lakh to the 'sahyogis' on 3506 RFID cards during 2014-16. However, the original beneficiaries (patient/disabled person) did not travel along with *sahyogis*. This showed that RFID cards made for patient/disabled persons had been misused.

The Corporation stated that recovery from the conductors was under process and the service provider had been directed to rectify the technical issue.

Unauthorised journey against free coupons issued to MLAs and MPs

3.40 The Corporation facilitated free journey to the MPs and MLAs (former and sitting) along with one attendant through pre-issued unique six digit number coupons. The free journey was allowed to the attendant only when accompanying with the MP/MLA. These coupons were printed manually and not generated through system.

BLAHEXNO	M CA	COUPON NUMBER	NO OF TICKETS	FARE AM	SLM
1	16-Aug-14	007239	2	1,530.00	
2	28-Oct-14	007258	1	899.00	
3	02-Nov-14	007238	1	879.00	
4	08-Nov-14	007230	2	1,467.00	
5	17-May-14	007	1	104.00	
6	28-Dec-15	010	1	1,064.00	
7	15-Mar-15	044	1	134.00	
8	25-Oct-15	044	1	893.00	
9	11-Apr-14	044-10	1	179.00	
10	22-Jul-15	044510	1	590.00	
11	22-May-14	046	1	237.00	
12	06-Mar-15	076	1	697.00	
13	07-Nov-14	007250	2	1,500.00	
14	07-Dec-14	052058	1	799.00	
15	06-May-15	055006	1	890.00	
16	12-Mar-15	055006	1	899.00	
17	20-May-14	054	2	1,347.00	
18	28-Jan-14	154	2	2,120.00	

We observed that the application software lacked appropriate input and validation controls to identify the unique number of the coupons. This resulted in free journeys of ₹ 19.84 lakh against 6466 invalid coupons. The 'coupon number' field in these cases indicated that the coupon number was less than six digits.

The Corporation stated that free tickets are issued to MLAs/MPs by entering coupon number manually and validation by ETIM is not possible. It accepted the fact that conductors issue free tickets by entering any six digit number. It added that the depots had been directed to enter the correct coupon number in ETIMs.

The reply is not convincing because the coupons were not generated through the software and the ETIMs were not integrated to validate the coupons.

Allotment of same seat number to two passengers

3.41 Data analysis disclosed that the online reservation system at the booking windows allotted the same seat number to two passengers in a bus in 3710 cases during 2014-16. Further, both the passengers travelled in these cases and, therefore, allotment of same seat number to two passengers due to cancellation of tickets was not possible.

The application software was, therefore, deficient in validating the already allotted seat number. The incidence of allotment of same seat number to two passengers was published in newspapers several times but no action was taken by the Corporation to modify the software.

The Corporation accepted the fact and stated that directions had been issued to the service provider to rectify the deficiency.

Issue of 'Passenger Name Record' number with less than 18 digits

3.42 The system generated a unique 'Passenger Name Record' (PNR) number at the time of reservation/booking of tickets. The Functional Requirement Standards (FRS) of Corporation provided that a PNR should contain eighteen digits. The first four digits indicated the destination of the passenger; fifth digit indicated the type of bus; six and seventh digits indicated identity of the depot; eight to thirteen digits indicated date of issue of ticket; and remaining five digits showed sequence record of the transaction. The PNR helped the Corporation in identification and recording of depot wise collection of revenue as well as passenger load factor in various types of buses. Data analysis in selected depots disclosed that the service provider did not adequately map the PNR rules which resulted in generation of 4.89 lakh tickets with PNR number less than 18 digits during 2014-16. The purpose of allotting different digits for identification of depots; recording of depot wise revenue; passenger load factor and transaction details of passenger, therefore got defeated.

The Corporation accepted the fact and stated that directions had been issued to service provider for ensuring 18 digit PNR in future.

Ticket issue date and time after the journey/boarding date and time

3.43 The boarding date and time cannot precede the date and time of issue of tickets in any case. Data analysis showed that the boarding date and time preceded the ticket issue date and time by one to four days in 55249 tickets issued during 2014-16. This indicated lack of adequate validation controls in the PORS software.

The Corporation accepted the facts and stated that the discrepancy occurred due to wrong entry of date by the employees at the depot level and the service provider had been directed to address this shortcoming.

The reply as regards wrong input was not correct because the system had been designed to take the date and time of issue of ticket automatically and, therefore, manual input was not possible.

No reservation quota in buses for disabled persons

3.44 The Government of India promulgated 'The Persons with Disabilities (Equal Opportunities, Protection of Right and Full Participation) Act', 1995 to ensure equal opportunities to the persons with disabilities. The implementation of the provisions of the Act required a multi-sectoral collaborative approach of all Ministries of the Central/State Government.

The State Government allowed concessional journey to the persons with disabilities but the Corporation had not earmarked any seats for such persons to ensure safe and comfortable journey by these passengers.

It is pertinent to mention that the buses of the Corporation had earmarked seats for Chairman/Managing Director Quota, female passengers and the MPs/MLAs which are allotted to the general category, 30 minutes prior to the departure of bus in case of non-occupation by these categories.

The Corporation stated that action had been initiated for providing reservation to disabled persons in Corporation's buses.

Issuance of more than one cancellation order against one ticket

3.45 The 'Public Online Reservation System' (PORS) prepared by the service provider lacked adequate controls and validation checks as regards refunds against the cancelled tickets. Data analysis disclosed that the PORS had generated 1482 cancellation orders while there were only 679 cancelled tickets during 2014-16.

The system was required to issue only one cancellation order for a cancelled ticket. However, in some cases, more than one cancellation order was generated for the cancelled ticket.

A snapshot of the database indicating refund against cancelled tickets for two or more times is shown below.

TICKET NO	REF	TICKET NO	ACTUAL TICKET NO	ADD. REF. N. SIA	ISSUE IN DATE	FMR NO	TOTAL FARE AMT
1	8007444	87447015	87447015	CO	01-Apr-15	XAGRV18040375000003	352.00
2	88022598	87447015	87447015	CO	03-Apr-15	XAGRV18040375000004	352.00
3	102715445	102505419	102505419	CO	25-May-15	XUCPV1805251500010	1,415.00
4	102715475	102505419	102505419	CO	25-May-15	XUCPV1805251500011	1,415.00
5	102715554	102690586	102690586	CO	25-May-15	XUPRV1805251500557	1,536.00
6	102761307	102690596	102690596	CO	25-May-15	XUPRV1805251500558	1,536.00
7	102717847	102717978	102717978	CO	25-May-15	XPALE1805251500052	76.00
8	102717850	102717978	102717978	CO	25-May-15	XPALE1805251500053	76.00
9	102313757	102995157	102995157	CO	11-Jun-15	XUPRV1806111500000	789.00
10	104311928	102995157	102995157	CO	11-Jun-15	XUPRV1806111500001	789.00
11	103078786	103005219	103005219	CO	30-May-15	XDLHV1805301500387	769.00
12	103229799	103005219	103005219	CO	30-May-15	XDLHV1805301500389	769.00
13	103229815	103005219	103005219	CO	30-May-15	XDLHV1805301500370	769.00
14	103078984	103048857	103048857	CO	31-May-15	GRCVH1805311500038	195.00
15	103229954	103048857	103048857	CO	31-May-15	GRCVH1805311500039	195.00
16	103168270	103168240	103168240	CO	30-May-15	XUPRV1805301500088	1,176.00
17	103168381	103168240	103168240	CO	30-May-15	XUPRV1805301500091	1,176.00
18	103229798	103229635	103229635	CO	30-May-15	XUPRV1805301500075	472.00
19	103229807	103229635	103229635	CO	30-May-15	XUPRV1805301500077	472.00
20	103348074	103284352	103284352	CO	03-Jun-15	XDLHA1806031500001	944.00
21	103559225	103284352	103284352	CO	03-Jun-15	XDLHA1806031500002	944.00
22	103401755	103790495	103790495	CO	01-Jun-15	XUPRV1806011500000	674.00

The Corporation stated that three fields in the name of actual ticket number, reference ticket number and ticket number are recorded in the data. Actual ticket number is generated only once for each transaction and the tickets are cancelled against actual ticket number.

The reply is not convincing as the actual ticket number and reference ticket number were same in the cases of two or more refund orders generated by the software.

'Zero' base fare in master data

3.46 The ETIM data captures the base fare, concessional fare and actual fare received on issue of a ticket. Tickets with 'zero' base fare could not be issued in any case because the Corporation had decided minimum fare from one destination to other. Data analysis disclosed that the selected depots issued 1878 tickets during 2014-16 with 'zero' base fare though the passengers

travelled from one destination to other. This showed that the business rules regarding charging of fare were not adequately mapped in the software and caused loss of revenue of ₹ 0.56 lakh to the Corporation.

The Corporation stated that in case of full concession tickets, all fields in the data were fed with 'zero'. In case of zero tickets issued against MCT code, the conductors issued new tickets and zero value tickets were deposited in the depot and, therefore, there was no loss to the Corporation.

The reply is not convincing as the cases pointed out by audit related to non concessional tickets and no evidence was produced by the Corporation for deposit of these zero value tickets in depots.

Lack of provision for wait listed/Tatkal tickets

3.47 A passenger can reserve a ticket in different categories of buses through ORS/PORS portal upto 30 days in advance of the date of journey. The scope of works of the agreement executed (May 2011) with the service provider stipulated that the system should provide waiting list facility and automatic confirmation of wait listed tickets in case of cancellation of the reserved tickets. Further, the facility of tatkal reservation with special charges for specified period was also to be provided by the system.

The service provider did not design the facility of wait listed and tatkal tickets in the ORS/PORS which deprived passengers in need of a confirmed seat and resulted in loss of revenue to the Corporation due to vacancy of seat on cancellation of a reserved ticket at the time of commencement of journey. Besides, the Corporation was also deprived of the premium it could have earned on tatkal bookings.

The Corporation accepted the facts and stated that there was no policy as regards wait listed and tatkal tickets.

The reply of the Corporation has to be seen in the light of the fact that the work order issued to the service provider stipulated that the system should provide facilities for wait listed and tatkal tickets.

Non-display of Toll Free Number and email address on the tickets

3.48 Communication with passengers is a key driver for the success of any business. Passengers' help desk in transport industry provided various facilities to the passengers like assistance in reaching to the bus stands; intimation about change in timings and route of the bus; registration of complaints; booking and cancellation of tickets; resolving problems during the course of journey; *etc.* The toll free numbers or e-mail addresses were mechanisms available with the passengers to communicate with the transport service provider.

The Corporation operated a call centre at the head office with toll free number (1800-2000-103) but the same was not printed on the tickets issued through ORS and ETIMs. The Corporation accepted the fact and stated that necessary provisions were being made for printing of toll free numbers on the tickets.

Not providing concessional tickets through PORS

3.49 The State Government directed the Corporation to allow free/concessional journey to 18 categories of persons under the Rajasthan

Guaranteed Delivery of Public Services Act, 2011. The Corporation, however, allowed booking of concessional tickets through PORS for only female and senior citizen categories. The remaining categories were required to obtain concessional tickets through booking windows or the ETIMs.

The application software was, therefore, not designed keeping in view the objective of implementation of the ITMS to provide reservation facility to all the passengers at their door steps.

The Corporation stated that reservation facility through PORS had not been allowed to the categories where 'zero' value tickets are issued because it would attract payment gateway charges.

The contention of the management is incorrect as in case of 'zero' value tickets, the passengers need not pay any amount and hence payment gateway would not be used.

Conclusion

The Performance Audit highlights deficiencies in project management, system design and validation controls. The project management, system design and validation controls deficiencies had financial implication on the revenue of the Corporation.

The Corporation did not prepare IT policy, IT security policy, password policy and policy for change control management. The IT cell of the Corporation had also not constituted a planning/steering committee with clear roles and responsibilities to monitor each functional area of the Integrated Transport Management System. The modifications made by Trimax IT Infrastructure and Services Limited, Mumbai (Service Provider) in the database as regards change in routes; fare in the software; security of IT assets; *etc.* were not subject to any supervisory control. Further, the Corporation did not have proper business continuity and disaster recovery plan because the primary data centre as well as the disaster recovery site for Electronic Ticket Issuing Machines (ETIM) application was set up in the same seismic zone (depot level). The Corporation also issued 'Pilot Acceptance Test' and 'User Acceptance Test' certificates to the Service Provider without evaluation of the application software.

The project monitoring and evaluation was deficient which led to release of payments to the Service Provider in violation of the clauses of agreement/service-level agreement and non-reconciliation of operating revenue.

The system design deficiencies and insufficient validation control resulted in discrepancies in allowing concession to female and senior citizen passengers viz. allowing concession outside State; concession to ineligible senior citizens; Mahila concession to male passengers and free journey to female passengers instead of only on Mahila divas and Raksha Bandhan. It also led to discrepancies in allowing concessions to students and monthly pass passengers viz. allowing journey more than once in a day; allowing free travel on Sunday and allowing journey on zero balance

monthly passes without receipt of fare. Inadequate mapping of rules led to non-charging of fare at prevailing tariff; under recovery of fare in inter-state buses and non-recovery of IT fees/accidental compensation surcharge/toll tax/human resource surcharge on free journey tickets. The system design deficiency also resulted in non-recovery of reservation charges and non/under recovery of cancellation charges.

The software in violation of the business rules allowed allotment of same seat numbers to two passengers; journey to RFID card holders in higher class than the eligible class; 'Passenger Name Record' number with less than 18 digits; issue of more than one cancellation order against one ticket; journey on expired RFID cards and concession without valid RFID card; *etc.*

Recommendations

We recommend that the Corporation should:

- formulate and implement a clear and comprehensive IT policy covering various aspects such as IT security policy; password management; policy for change control management. The Corporation should also periodically review the IT policy according to the business needs;
- set up the primary data center and the disaster recovery site for the data of Electronic Ticket issuing Machine (ETIM) application at different locations. The Corporation should also ensure transmission of ETIM data for back up at the State Data centre;
- build adequate input controls and validation checks to ensure correctness and completeness of input data and output results as per the business rules and needs of the Corporation to minimise the instances of acceptance of wrong input data and issue of incorrect tickets;
- ensure mapping of business rules in accordance with the organization rules/policies, manuals, Government directions, *etc.* and should periodically review and update them;
- ensure functioning of GPRS module for real time integration of the ticketing and financial data of Online Reservation System and ETIMs; downloading data of advance booking details to ETIMs at depots; up-gradation of ETIMs and their online operations; online MIS and decision support system;
- make procedures of operating the ETIMs simple to increase operational efficiency and reduce input errors; and
- reconcile the IT data and accounting data to avoid any leakage of revenue.

CHAPTER IV

Compliance Audit Observations

Chapter IV

4. Compliance Audit Observations

This Chapter includes important audit findings emerging from test check of transactions of the State Government Companies and Corporations.

Government Companies

Jodhpur Vidyut Vitran Nigam Limited

4.1 *Undue benefit to the contractors due to absence of adequate clauses in the work orders towards manual meter reading*

The contractors carried out manual meter reading in majority (73.66 per cent) of cases instead of reading through CMRI/HHT. The Company made payments to the contractors at the rates prescribed for reading through CMRI/HHT in absence of adequate clauses in the work order for manual reading.

The Meter and Protection (M&P) wing of Jodhpur Vidyut Vitran Nigam Limited (Company) awarded (February 2014) work orders for the purpose of monthly meter reading and load survey through CMRI¹. The scope of the work orders provided that the contractors² shall ensure maintenance of master database; meter reading/downloading of data through CMRI/HHT³ and handing over to the designated officer/billing agency within specified time period; uploading of data to base computer; wiring verification by deploying suitable software with the help of hardware; and generation of output reports. The contract period was two years commencing from April 2014. The performance of the contractors was to be reviewed half yearly and the work could be rescinded any time, if the performance was not found satisfactory.

The terms and conditions of the work orders also provided that meter reading had to be taken only through Meter Reading Instrument/Hand Held Terminal (HHT) for which meter reading instruments in sufficient quantity capable of taking reading from various makes⁴ of meters installed at consumer's premises had to be arranged by the contractors. All the meters were to be made accessible for reading by connecting an optical port to meters by removing the existing seal. The Company was required to supply seals to the contractors, who in turn, had to reseal the port and furnish monthly record of seals to the Company. Further, the contractors were required to intimate the Company within 48 hours in case any abnormalities/non-communicating meters were found during the course of meter reading. Manual reading had to be arranged through display parameters in case of non-communicating meters.

1 Common Meter Reading Instrument.

2 Galaxy Data Processing Centre and NYG Energy Solutions Private Limited.

3 Hand Held Terminal.

4 The Company had installed different makes of meters viz. Secure, L&T, ABB, Datapro, Duke Arniks, Genus, HPL, Omniagate, etc.

The rates for meter reading and analysis were split for different types of meters. In case partial activities were carried out by the contractors, payment had to be made as per bifurcated rates for data capturing/meter reading and data analysis as below.

(Figures in ₹ per meter)

Type of meter	Galaxy Data processing centre						NYG Energy Solutions Private Limited		
	Jodhpur zone			Barmer zone			Bikaner zone		
	Reading	Analysis	Total	Reading	Analysis	Total	Reading	Analysis	Total
HT TVM	80	30	110	130	30	160	127	2	129
LT TVM	80	30	110	130	30	160	127	2	129
LT CT operated	80	30	110	130	30	160	127	2	129
Three phase whole current (monthly billing)	70	20	90	110	20	130	127	2	129
Three phase whole current (bi-monthly billing)	70	20	90	110	20	130	127	2	129

We observed (July 2015) that the contractors took 209710 meter readings upto July 2015, out of which 55232 (26.34 per cent) meter readings were taken through CMRI/HHT and remaining 154478 (73.66 per cent) meter readings were taken manually. The sub-division wise details of meter readings of the consumers disclosed that manual readings were taken in cases where the meters were installed inside the meter box; the communication port did not support the meters and where electrostatic meters were installed by the Company.

We noticed that the contractors did not intimate the Company about non-communicating meters within 48 hours. The sub-division wise details of meter readings submitted by the contractors for payment disclosed only the details like number of meters found locked, meters in boxes, meters which did not communicate with HHT/CMRI, electrostatic meters, stopped meters and meters whose reading was taken through HHT/CMRI. The Company, however, did not take any action against the contractors for not intimating it about the non-communicating meters within 48 hours. Further, directions were not issued for taking readings through CMRI/HHT by breaking the seals of the meters and for arranging compatible cord/equipment (hardware and software) despite manual meter readings in majority of cases. The Company also did not replace the electrostatic meters with compatible meters even though these were meagre in number.

The overall objectives of generating various output reports on the basis of meter data was defeated due to manual reading taken by the contractors in majority of the cases. There was no separate rate prescribed for manual meter reading. Absence of any penalty or a separate payment mechanism for manual reading and substantial difference between the rates for reading and analysis encouraged the contractors to go for manual reading in majority of cases.

It was noticed that in a similar work order awarded (November/December 2012) by Jaipur Vidyut Vitran Nigam Limited (JVNL), a sister concern of the Company, only 50 per cent payment was allowed in case of manual meter reading by the contractor. Further, as noticed in another case, Uttar Haryana

Bijli Vitran Nigam Limited (a power distribution company of the Government of Haryana) was also allowing only 25 *per cent* payment to the contractors in case of manual reading.

The Company made payments of ₹ 1.19 crore to the contractors for 1.54 lakh manual meter readings upto July 2015. Had the condition of 50 *per cent* payment existed in the agreements for manual reading like that of JVVNL, the Company could have saved an extra payment of ₹ 59.58 lakh. Besides, the Company also did not review the half-yearly performance of the contractors as per the conditions of agreements even when the contractors made majority of meter readings manually.

The Government stated (January 2016) that the prices for meter reading were irrespective of the method of capturing *i.e.* manually or through CMRI/HHT and the payments had to be made as per bifurcated rates for data capturing/meter reading and data analysis, in case partial activities were carried out by the contractors. It further stated that the rates allowed by the Company for manual reading were at par with the rates allowed by JVVNL for manual meter reading. The reply was not convincing as the contractors were required to take meter reading only through CMRI/HHT and in absence of reading through CMRI/HHT and generation of output reports, the objectives of awarding work orders were not achieved. Further, the rates allowed by JVVNL could not be compared because JVVNL did not split the prices for meter reading and analysis. The contractors of JVVNL had to forgo 50 *per cent* of the composite price (ranging between ₹ 90 and ₹ 125 per meter) in case manual reading was taken. However, in case of Company, the contractors had to forgo only the price for analysis portion which ranged between ₹ 2 and ₹ 30 per meter. In this way, the contractors did not incur any loss on account of manual reading because the prices for analysis portion were substantially lower and they were also not required to make investment on infrastructure (equipment, *etc.*) for ensuring meter reading through CMRI/HHT which was a pre-requisite for analysis of meter data.

The Company in further reply (June 2016) accepted the audit observation and stated that the Corporate Level Purchase Committee had decided (1 June 2016) to allow payments for manual readings at 50 *per cent* of the rates allowed for taking reading through CMRI/HHT. It was also stated that instructions had been issued to the bill verifying authorities for recovery of excess payments.

The Government, however, contrary to the reply of the Company stated (June 2016) that it was not possible to take all the readings through CMRI/HHT due to various reasons *viz.* electro-mechanical meters installed at consumer's premises; meter installed inside the meter box with seal; non-availability of compatible CMRI/HHT with meter reader; non-availability of matching software; lack of communication between instrument and meter due to deposit of sand and rainy water; defective/damaged port of the meter; and non-responsiveness of the meters with CMRI due to increased atmospheric temperature. The reply of the Government was not convincing as the terms and conditions of the work order provided meter reading only through CMRI/HHT as per the scope of the work. The reply of the Government was

silent as regards recovery from the contractors as per the decision (1 June 2016) of the Corporate Level Purchase Committee.

Rajasthan State Industrial Development and Investment Corporation Limited

4.2 Follow up audit on ‘systemic lapses in recovery of economic rent and service charges from the entrepreneurs’

4.2.1 Introduction

Rajasthan State Industrial Development and Investment Corporation Limited (Company) annually recovers economic rent and service charges from the entrepreneurs to recoup the lease charges and recurring cost incurred on up-keep and operation and maintenance of industrial areas.

The performance of the Company in recovery of economic rent and service charges was highlighted in paragraph 3.9 of Report No. 4 (Commercial) of the Comptroller and Auditor General of India for the year ended 31 March 2010, Government of Rajasthan, hereinafter called as Audit Report 2009-10.

The paragraph 3.9 of the Audit Report 2009-10 highlighted discrepancies noticed during the period 2004-05 to 2008-09 relating to non-recovery of economic rent and service charges; non-maintenance of proper records of allottees by the Unit offices; delay/non-issuance of demand notices and show cause notices; lack of action against defaulter entrepreneurs as per rules; and writing-off old dues due to non-recovery.

The Committee on Public Sector Undertakings (COPU) discussed (9 July 2013) the paragraph and placed (March 2016) its recommendations to the State Legislature.

The COPU had recommended that the Company should periodically review and revise the rates of economic rent and service charges; issue notices and make special efforts for recovery of dues outstanding for more than five years; take action against the officials for dereliction in recovery of dues; take action for documentation and computerisation of the records; prepare a management information system and regularly monitor recovery of dues.

We had also recommended that the Company should strengthen its internal control system regarding recovery of dues from the entrepreneurs; stipulate targets for recovery of economic rent/service charges separately; and fix accountability of the concerned staff in case of non-achievement of targets.

The follow up audit was conducted at the Head Office of the Company and in three Units (Sitapura, Ajmer and Bhiwadi-II) out of the six Units⁵ selected for the Audit Report 2009-10. This audit was conducted (January 2016 to March 2016) to assess improvement in the system of recovery of economic rent and service charges and action taken by the Company on the audit recommendations made earlier. The criteria adopted to assess the follow-up audit were RIICO Disposal of Land Rules, 1979 (RIICO Rules) framed by the Company for allotment of land; terms and conditions of allotment letters and

5 Sitapura, Vishwa Karma Industrial Area, Kota, Ajmer, Bhiwadi I and Bhiwadi II.

lease agreements; accounting policies adopted by the Company; and paragraph 3.9 of the Audit Report 2009-10.

The audit findings have been finalised considering the replies (July 2016) of the Government.

4.2.2 Economic Rent

Rule 9 of the RIICO Rules provided that the entrepreneurs were required to pay lease rent in the form of economic rent for the current financial year within 60 days from the date of allotment of land. In cases, where plots had been allotted in auction, economic rent was required to be paid within 120 days from the date of taking possession/deemed possession. For subsequent financial years, the economic rent becomes due on 1 April of the year and is required to be paid in advance by 31 July of every year. Interest on outstanding economic rent, if any, is recoverable from the due date as per rules. Rule 10 of the RIICO Rules further provided that the Company reserved the right to revise the rate of economic rent every five years. However, the enhancement of rent at each revision should not exceed 25 *per cent* of the rate payable for the period immediately preceding the revision.

The Company fixed (April 2002) economic rent upto March 2012 on the basis of the size of plot, population of the town and the year in which allotment/lease deed was executed (upto 31 March 1991 or on or after 1 April 1991). The rates of economic rent were revised (April 2012) with effect from 1 April 2012.

4.2.3 Services Charges

The Company recovers service charges from the entrepreneurs to recoup the recurring cost incurred on the maintenance of industrial areas. Rule 15(A) of the RIICO Rules provided that the allottees had to pay service charges applicable at the time of allotment in addition to economic rent. The entrepreneurs were required to pay service charges within 120 days from the date of allotment for current financial year. For subsequent financial years, the charges are due on 1 April of each financial year and required to be paid in advance by 31 July of every year. The Company reserves the right to revise the rate of service charges from time to time.

4.2.4 Recovery of economic rent and service charges

We noticed that as on March 2015, a total amount of ₹ 119.97 crore (including interest of ₹ 41.30 crore) was pending for recovery from the entrepreneurs towards service charges and economic rent. The period from which the service charges and economic rent were pending for recovery was not available on records. Of selected units, economic rent and service charges of ₹ 20.12 crore (including interest of ₹ 6.66 crore) was pending for recovery against the entrepreneurs as on 31 March 2015. We also noticed that the dues increased (129.68 *per cent*) from ₹ 8.76 crore in 2008-09 to ₹ 20.12 crore in 2014-15.

The Company follows an accounting policy which allows it to write-off dues pending for recovery for more than five years. The financial statements are, therefore, prepared considering the dues outstanding for more than five years

as bad debts. An amount of ₹ 52.12 crore⁶ was pending for recovery towards economic rent/service charges as on 31 March 2015 after writing-off the dues pending for recovery for more than five years.

We noticed that the performance of the Company in recovery of dues deteriorated during 2009-15. The amount pending for recovery as per financial statements, increased (114.22 *per cent*) from ₹ 24.33 crore as on 31 March 2009 to ₹ 52.12 crore as on 31 March 2015. In selected Units, the amount pending for recovery for less than five years increased (88.56 *per cent*) from ₹ 4.10 crore as on 31 March 2009 to ₹ 7.75 crore as on 31 March 2015 despite the fact that the Government/Company had advised (October 2009) Unit offices to monitor the collection of all dues/charges regularly and issue demand notices to improve the financial health of the Company. This indicated lack of adequate efforts in recovery of dues by the Unit offices. Besides, the Company did not fix Unit wise targets for recovery of economic rent/service charges separately and also did not fix the accountability of individual officials as recommended in the Audit Report 2009-10.

The Government stated that the Company recovers the entire outstanding dues of service charges; economic rent; and interest thereon and any other dues, whenever any allottee approaches it for taking any approval/permission or no objection certificate in any matter. It further stated that the amount of service charges recovered increased from ₹ 16.63 crore in 2009-10 to ₹ 44.37 crore in 2014-15 due to efforts made by the Company. The reply is not in consonance with the facts that the service charges; economic rent and interest thereon were not recovered in the year when these became due. The increase in recovery of dues during 2009-10 to 2014-15 was due to increase in the rate of service charges and number of allottees.

4.2.5 Revision of service charges

The Company enhanced the rates of service charges by six *per cent* per annum upto the year 2007-08. The prevailing rates were reviewed (April 2008) and increased (₹ 1.80 per sqm to ₹ 2.75 per sqm)⁷ by 10 to 15 *per cent* for various categories of industrial areas in view of increased cost of maintenance vis-a-vis low realization. The Company did not revise the rates during 2009-11 considering the fact that rates were abnormally increased during the year 2008-09.

The technical and financial division (T&FD) of the Company proposed (March 2011) to increase the service charges by 10 to 15 *per cent* from April 2011 for different categories of industrial areas because of excess of expenditure over revenue recovered. The T&FD envisaged an additional revenue of ₹ 12.50 crore during 2011-12 due to increase of service charges but the Company did not revise the rates during 2011-12.

The Infrastructure Development Committee (IDC) of the Company constituted (March 2012) a sub-committee for revision of the rates of service charges. The Company, based on the recommendations of the sub-committee, fixed (May

6 This includes service charges of ₹ 48.51 crore (including interest of ₹ 11.60 crore) and economic rent of ₹ 3.61 crore (including interest of ₹ 1.54 crore).

7 Rates of service charges of Special Economic Zone (SEZ) Sitapura phase I and II were ₹ 34.50 per sqm and SEZ Boranada were ₹ 11.50 per sqm.

2012) the rates from 1 April 2012 as one *per cent* of the prevailing rates of the development charges subject to maximum of ₹ 10 per sqm and minimum of ₹ 1000 with an annual increase of 10 *per cent*. The rates were, however, reduced (June 2012) to ₹ 5 per sqm with minimum of ₹ 1000 per annum on the representations of the entrepreneurs. An annual increase of 10 *per cent* was though made in the rates of service charges during the period 2013-16.

The position of service charges recovered, expenditure incurred by the Company on maintenance/special maintenance of industrial areas and the gap between service charges recovered and expenditure incurred on maintenance/special maintenance of industrial areas during the period 2009-15 was as below.

(₹ in crore)

Year	Service charges recovered	Expenditure incurred on maintenance/special maintenance of industrial areas	Excess of expenditure over service charges actually recovered
2009-10	16.63	30.53	13.90
2010-11	19.87	42.41	22.54
2011-12	21.62	68.97	47.35
2012-13	31.22	116.68	85.46
2013-14	34.37	113.33	78.96
2014-15	44.37	77.55	33.18

It could be seen that there was wide gap between the revenue realised from service charges and expenditure incurred by the Company on maintenance/special maintenance of industrial areas.

The Government accepted the facts and stated that the Company gave importance to proper upkeep and maintenance of industrial areas for providing conducive infrastructure facilities. The amount of service charges recovered from each industrial area was kept in view while making expenditure on maintenance but the same was not the sole guiding factor. The company had to incur expenditure considering the peculiar maintenance requirements of an area which led to gap in recovery of service charges and expenditure incurred.

4.2.6 Inaction against defaulter entrepreneurs

Rule 24(1) of the RIICO Rules provides right to the Company to cancel the allotted plot for non-adherence to any rules, condition of allotment letter or terms of lease agreement after issuing 30 days registered show cause notice to the allottee. The show cause notice clarifies that the default would be condoned only on adherence to the terms and conditions. The plot was liable to be cancelled and lease terminated in case of no response or reply to the show cause notice without commitment for deposit of dues or adherence to the terms and conditions by the allottee.

In selected Units, we noticed that an amount of ₹ 20.12 crore was pending for realisation against 3844 entrepreneurs towards service charges/economic rent as on March 2015. A test check of records of 157 defaulter entrepreneurs having outstanding dues of ₹ 10.78 crore was done to review the adequacy of action taken by the Unit offices in cases of non-payment of dues.

We observed that out of 157 entrepreneurs, 91 (57.96 *per cent*) entrepreneurs had not paid service charges of ₹ 8.57 crore (79.50 *per cent*) for more than five years and the Company had treated this amount as bad-debts as per the

accounting policy. The Company, however, issued show cause notices in only 72 cases out of 157 cases. Further, in 28 cases, the demand notices were also not issued. The time elapsed since issue of demand notices in the remaining 129 cases was as below:

Time elapsed since issue of demand notice as on March 2015	Number of cases
Five years	7
Four years	6
Three years	4
Two years	8
One year/demand notice issued during 2015-16	104

We observed that the Company had not initiated action to cancel even a single allotment during 2009-15 despite non-payment of dues by these entrepreneurs for a long time.

Among 157 defaulter entrepreneurs, the maximum service charges (₹ 8.59 crore) were outstanding against 57 entrepreneurs of Bhiwadi-II Unit. A further analysis disclosed that out of these 57 entrepreneurs, service charges of ₹ 7.59 crore were outstanding against only 17 entrepreneurs. However, even in the case of these 17 entrepreneurs with significant outstandings, the Unit office had not issued demand notices to nine entrepreneurs and show cause notices to 10 entrepreneurs.

The Government stated that demand notices for payment of economic rent and service charges were issued by the Unit offices every year but the closed industrial units or the units in possession of the Company/RFC⁸/other institutions did not pay the dues. The notices for cancellation of plots were issued to the allottees in case of accumulation of huge amount of service charges. Looking to the number of allottees, however, it was not practical and feasible to cancel the allotments and take possession of the plots of all the defaulter allottees across the State. The reply regarding issue of demand notices to all the allottees every year was not correct as the Company did not issue or delayed the issue of demand notices in above mentioned cases. The number of units under production which did not pay heed to the demand notices was significant and no action was taken by the Company for recovery of dues.

4.2.7 Non-maintenance of proper records

In selected Units, it was observed that proper records of the allottees as regards allottee-wise ledger; closed and running units; and age-wise pendency of service charges and economic rent were not maintained. Further, vital information like details of demand/show cause notices issued for recovery of dues and action taken against the defaulter entrepreneurs was also not maintained by the Unit offices. The Unit offices maintained consolidated position of area-wise pendency of dues; and service charges/economic rent recovered and outstanding. The information was not sufficient to analyse the position of individual entrepreneur.

We also noticed that the position of outstanding service charges and economic rent was never apprised to the Board.

The Government stated that the Company every year prepared entrepreneur wise details of past outstanding dues of service charges and economic rent; amount due during the year; amount received during the year; and amount outstanding at the end of the year. It was further stated that the analysis/details suggested by the Audit was not feasible in view of manual record keeping by the Company. It was also stated that outstanding service charges and economic rent were part of the annual accounts and the same were presented to the Board every year. The reply was not convincing as age wise break up of outstanding amount of service charges and economic rent against the entrepreneurs was not prepared by the Unit offices. Further, the position of Unit offices as regards recovery of economic rent and service charges was never discussed in the Board meetings separately. The Company settles the dues through individual records as and when need arises.

Conclusion

There was no improvement in the system of recovery of economic rent and service charges during the period 2009-15. The Unit offices failed to issue demand notices/show cause notices timely. The outstanding dues increased year after year due to lack of concrete action against the defaulter entrepreneurs as per rules. There was no improvement in maintenance of records by the Unit offices. There was wide gap between revenue realized from service charges and expenditure incurred on maintenance/special maintenance of industrial areas. Further, the recommendations made by the Audit in Audit Report 2009-10 were not implemented by the Company.

Recommendations

The Company should comply with the recommendations made by COPU. It is also recommended that the Company should:

- **fix Unit office wise targets of recovery of economic rent/service charges;**
- **take proper action against the defaulter entrepreneurs for non-payment of economic rent/service charges;**
- **rationalise the rates of services charges to maintain parity with the expenditure incurred on maintenance/special maintenance of industrial areas; and**
- **computerise the records and prescribe periodical returns of outstanding dues (entrepreneur wise) to be submitted by the Unit offices to the Management.**

4.3 Installation of Rainwater Harvesting Structures in the industrial areas

4.3.1 Introduction

Water is a scarce and precious national resource. It is fundamental to life, livelihood, food security and one of the most crucial elements in developmental planning. The State of Rajasthan is one of the driest states of the Country and the total surface water resources in the State are only about one⁹ per cent of the total surface water resources of the country.

Utilisation of groundwater and its replenishment in Rajasthan during 2001-15

The groundwater resource is replenished by two major sources; rainfall and other sources that include canal seepage, return flow from irrigation, seepage from water bodies and artificial recharge due to water conservation structures. In Rajasthan, the total water recharge in 2001 was 11.159 Billion Cubic Meters (BCM) against utilisation of water for irrigation (10.454 BCM) and industrial & residential (1.181 BCM) purpose. Utilisation of water for irrigation and industrial & residential purpose increased to 11.60 BCM and 2.72 BCM respectively in 2015 but the total water recharge was only 10.38 BCM. Thus, excess withdrawal of groundwater of 0.476 BCM in 2001 went upto 3.94 BCM in 2015 indicating constant depletion of groundwater table. The stage of water development in Rajasthan was negative (125 per cent) against the national average of 58 per cent which shows that average annual ground water consumption was more than average annual ground water recharge.

Source: Water resources information system of India and Central Ground Water Board.

The Government of Rajasthan (GoR) ordered (31 May 2000) mandatory installation of rainwater harvesting system for all public establishments and all properties in urban areas having plots of 500 square meters (sqm) or more. The order was modified (12 December 2005) and installation of rainwater harvesting system was made mandatory for all plots in urban areas of 300 sqm or more.

Rajasthan State Industrial Development and Investment Corporation Limited (Company) is engaged in allotment of land for industrial and non-industrial purpose in the State. Consequent to the decision of the GoR, construction of Rainwater Harvesting Structures (RWHS) within six months from 7 December 2000 was made mandatory for allottees having plots 500 sqm or more. The Company, however, did not pay attention to the amended (12 December 2005) order of the State Government which made construction of RWHS mandatory for plots having size 300 sqm or more.

The present study was carried (February 2016 to April 2016) out to assess whether the allottees installed RWHSs in the plots as per the Rules and directives issued by the Company from time to time. Further, the monitoring mechanism adopted by the Company to verify the construction of RWHS by the entrepreneurs and action taken against the defaulter allottees were also reviewed.

As on 31 December 2015, the Company had allotted 54195¹⁰ plots (42479 industrial/non-industrial units covering 34682 acre land) in 330 industrial areas under the jurisdiction of 27 Unit offices. Out of 42479 units, 36519 units were under production and 2060 units were under construction as on

9 State Water Policy 2010.

10 Including 6937 number of plots lying vacant as on December 2015.

December 2015. The plots under remaining units were either lying vacant or were under dispute.

Our scrutiny involved review of records at the Head Office and seven¹¹ selected Unit Offices covering all the geographical zones/regions of the State. A mix of 33 old and new industrial areas out of 71 industrial areas developed by the selected Unit offices were selected to assess the compliance of rules and orders by the old and new allottees (units). The results are based on detailed scrutiny of the records of 1262 units (including industrial and non-industrial), out of 5581 units under production in selected industrial areas as on December 2015. We also conducted joint inspection of 105 units along with the Company personnel to assess the authenticity of installation of RWHS by the allottees and cross verified by the Company.

The RIICO Disposal of land Rules, 1979 (RIICO Rules); terms and conditions of allotment letters; decisions of the Infrastructure Development Committee (IDC); administrative sanctions issued for industrial areas; and other Rules, notifications, manuals issued by the Company formed the audit criteria for achievement of audit objectives.

The paragraph has been finalised after considering the reply (August 2016) of the Government.

Audit findings

4.3.2 Regulatory framework for construction of RWHS

The allottees of the plots are required to prepare and get the lay out plan approved as per the building parameters prescribed by the Company. The Company modified (7 December 2000) the building parameters and made installation of RWHS compulsory in the non-industrial plots having size 500 sqm or more. The Company also incorporated conditions in the allotment/transfer letters from August 2001 onwards for mandatory installation of RWHS by all industrial units having plot size 500 sqm or more. The allotment of plot was to be automatically treated as cancelled in case of non-compliance with any of the terms and conditions of allotment/transfer letter by the allottee.

The GoR issued (February 2010) State Water Policy 2010 which stressed promotion of roof top rainwater harvesting in both rural and urban areas. The Company, in compliance with the State Water policy, formed (9 June 2011) a sub-group¹² to examine the issue of rainwater harvesting in the industrial areas of the Company in line with the policy and guidelines issued by the State Government from time to time.

Based on the recommendations (August 2011) of the sub-group, the IDC decided (5 September 2011) that all the existing allottees of plots having size 500 sqm or more were required to construct RWHS in their premises within a period of six months. The request of the existing allottees as regards change in land use; transfer of plot; change in constitution of the unit; and issue of no-objection certificate was not to be entertained, if RWHS was not constructed.

11 Abu Road, Bikaner, Bharatpur, Boranada Jodhpur, EPIP Sitapura, Kota and Neemrana.

12 Commissioner Industries, Commissioner (Investment & NRI) and Secretary (Energy).

It was also decided that new industrial units would not be recorded as ‘under production’ without verification of RWHS in their premises by the Head of the concerned Unit office.

The IDC also amended (August 2014) Rule 23 (C) of the RIICO Rules. The amended Rule provided that any industrial unit could be treated ‘under production’ without construction/completion of RWHS subject to an annual payment of penalty at the specified rates. A clarification to this amendment was issued (September 2014) which provided that:

- delay in commencement of production activities upto the date of construction of RWHS would be regularized on payment of retention charges in cases where plots had been treated ‘under production’ during the period from 30 September 2011 to 24 August 2014,
- in cases where plots were treated as ‘under production’ on or after 25 August 2014, the entrepreneurs were required to make payment of penalty at specified rates for delay in construction of RWHS.

The clarification was, however, silent as regards recovery of retention charges in cases where the allottees had not installed RWHS even after August 2014 but the units were treated as ‘under production’ during the period from October 2011 and August 2014.

4.3.3 Construction of RWHSs by the allottees

Out of 1262 selected units, only 515 units constructed RWHS by March 2016. The construction of RWHSs by the allottees has been analysed into three parts based upon the issue of directives/modification of Rules by the Company. The first part covers construction of RWHSs by the 703 units which were under production as on September 2011; second part covers 339 new units which came under production during October 2011 to August 2014; and the third part covers 176 units which came into production after August 2014. In absence of data, the date of production of 44 old units could not be verified. However, 14 units out of these old units had installed RWHSs in their premises. The status of installation of RWHSs by the 1262 selected units as on March 2016 was as under.

Period	Units under study	Units which installed RWHS	Units which had not installed RWHS
Units under production as on September 2011	703	160	543
Units which came under production during October 2011 to August 2014	339	206	133
Units that came under production after August 2014	176	135	41
Units whose date of production could not be verified	44	14	30
Total	1262	515	747

- Out of 703 units ‘under production’ as on September 2011, only 160 units had installed RWHSs in their premises by March 2016. We noticed that only eight existing units installed RWHSs within the prescribed time period of six months. The Company/Unit offices, however, allowed change in constitution of units in 34 cases; change in

land use in seven cases; issued no-objection certificate in 235 cases; and allowed transfer of units in 194 cases during the period October 2011 to March 2016 without ensuring construction of the RWHS by these units.

- The Unit heads treated 339 units as having come ‘under production’ during the period from October 2011 to August 2014 but only 206 units had installed RWHSs in their premises. The remaining 133 units were treated ‘under production’ without construction of RWHSs. We noticed that the Company did not recover retention charges of ₹ 6.45 crore on account of delay in installation of RWHSs/non-installation of RWHSs.
- Out of 176 units which came ‘under production’ after August 2014, only 135 units installed RWHS. Of the remaining 41 units, 19 units were treated ‘under production’ as per existing norms without installation of RWHSs. The scheduled date of production in case of 22 units was beyond March 2016. The Company did not recover penalty of ₹ 0.06 crore from units¹³ which were treated as ‘under production’ without installation of RWHSs.

4.3.4 Results of joint inspection

We conducted joint inspection of 105 units along with the Company personnel to assess the authenticity of RWHS installed by the allottee and also verified by the Unit offices. The results of joint inspection were as under.

S. no.	Name of the Unit office	Number of joint inspections	Number of units where the RWHS did not exist	Number of units where RWHS was not properly maintained
1	Abu Road	13	7	5
2	Neemrana	9	2	3
3	Bharatpur	8	-	7
4	Bikaner	20	-	8
5	Kota	34	-	12
6	Boranada Jodhpur	11	8	11
7	Sitapura Jaipur	10	1	1
Total		105	18	47

The results of the joint inspection disclosed that out of 105 units, 18 units had not installed RWHS but the Unit offices had verified the same earlier. This indicated that construction of RWHS by the allottee was certified by the Unit Office without physical verification of the unit. This increases the risk of irregularities as the entrepreneurs were not able to make change in land use; transfer of plot; change the constitution of the unit; and seek no-objection certificate for availing loans from the financial institutions without concurrence of the Unit Offices. Further, in 47 units, we noticed that the RWHS was not properly maintained as underground water tanks did not exist; pipes fitted to carry roof top water were not having discharge into underground tanks; or the pipes were blocked due to garbage.

13 In respect of 38 units (19 units which had not installed RWHSs and 19 units which installed RWHSs with delay).

4.3.5 Monitoring of construction of RWHSs

The Company did not prepare and implement an effective strategy to ensure installation of RWHSs by the units in the industrial areas. The Unit offices did not issue any notices upto September 2011 though installation of RWHSs was mandatory from August 2001 for all the units having size of plots 500 sqm or more. The Company lacked efforts in issuing directions and generating awareness among the allottees for installation of RWHS. The Company/Unit offices did not have any database of the units which constructed RWHS. In absence of any database, the Company/Unit offices could not identify the units which had not constructed RWHSs and as such were liable for retention charges. The plots were liable to be cancelled for non-installation of RWHS but the compliance of this condition in the allotment/transfer letters was not monitored. Further, the Unit heads treated new units 'under production' without verifying the construction of RWHSs in violation of the directions.

The allottees of the plots were required to intimate in writing to the concerned Unit head after construction of the RWHS. We observed that out of the selected 1262 units, only 45 units intimated about construction of RWHSs upto March 2016. The Company, however, issued notices in only 161 cases (13.23 per cent) out of 1217 cases during September 2011 to March 2016. The Unit Offices, therefore, failed to monitor the construction of RWHSs despite non-receipt of intimations from the allottees.

4.3.6 Implementation of the recommendations of the IDC

The IDC in addition to the decisions taken in the meeting held on 5 September 2011, also recommended:

- to prepare a manual on rainwater harvesting system to define the vital parameters of RWHS such as size, type, design, technical specifications, etc.;
- to adopt a motivational approach for water harvesting system by having wider discussions with the Industries Association; and
- to form a group to decide modalities for implementation of the suggestions of the sub-group.

The compliance to the above recommendations of the IDC by the Unit offices/Company is discussed below.

4.3.7 Preparation of manual for construction of RWHS

The Company had (June 2005) a document explaining methodology for construction of RWHS but the Unit Offices were not aware of any such document. Further, in compliance with the directions (5 September 2011) of the IDC, the Company did not prepare any manual to define the vital parameters of RWHS such as size, type, design, technical specifications, etc. The Unit offices were not aware about the specifications and technology to be used by the units for construction of the RWHS as per the topology of the area.

In absence of specific directions and awareness, the site reports prepared by the selected Unit offices mentioned only whether the allottees had constructed RWHS or not. The Company, therefore, did not ensure the suitability of

RWHSs installed by the units due to non-existence of vital parameters of RWHS to be constructed.

4.3.8 Modalities for installation of RWHSs

Implementation of any policy largely depends upon the participation of stakeholders. The State Water Policy 2010 was aimed at adopting an integrated and multi-sectoral approach in planning, development and management of water resources on a sustainable basis. The policy aimed to promote water conservation through education, regulation, incentives and disincentives by progressive water tariff, water recycling facilities, *etc.*

The allottees of the industrial/non-industrial plots were the related stakeholders required to install RWHS in the industrial areas developed by the Company. However, the Company did not prepare any programme for publicity and for generating awareness among the entrepreneurs about the importance of rainwater harvesting.

The sub-group considering the scarcity of surface water and critical situation of the ground water in the State and need for implementation of rainwater harvesting systems in accordance with the provisions of the State Water Policy, recommended (24 August 2011) mandatory installation of RWHSs in the industrial areas. The IDC also formed (September 2011) a group to firm up the modalities for implementation of the suggestions of the sub-group. The group, however, did not prepare any proposal to decide modalities for installation of RWHSs by the units in the industrial areas. Further, the Company was also found deficient in redressing the grievances of industrial units regarding installation of RWHS as per the topographical conditions of the industrial areas.

We noticed that the Industrial Associations of Kota and Jhalawar industrial areas requested (July 2012) the Company to issue guidelines for construction of RWHS in view of the industries being located in impervious belt having schist rock/hard rock. The Company, however, failed to provide guidance to the industrial units located in these areas (April 2016). As a result, RWHSs could be constructed (March 2016) in only 90 units out of 276 units under selection in Kota Unit office.

The Government accepted the audit observations and stated (August 2016) that the Company had issued (April 2016) directions to all Unit offices to ensure compliance with the audit observations and orders/circulars issued by the Company in relation to construction of Rainwater Harvesting Structures. It was further stated that the Company had issued directions to obtain support from Industrial Associations and place flexi sign boards at suitable locations for publicity and generating awareness for construction of Rainwater Harvesting Structures.

Conclusion

The Company failed to prepare and implement an effective strategy to ensure mandatory installation of Rainwater Harvesting Structures (RWHSs) by the allottees in the industrial areas. The Company/Unit offices in violation of the decisions/directives of the Infrastructure Development Committee (IDC) allowed change in constitution of units; change in land use; transfer of units; issued no-objection certificate; and

treated the units under production as per the existing norms without ensuring installation of RWHSs. There were instances where the allottees had not installed RWHSs but the Unit offices certified installation of RWHSs by these units. Further, the RWHSs installed by the allottees were not properly maintained in some cases. The Company did not prescribe technical parameters and the technology to be used by the allottees for installation of RWHS based upon the topography of the industrial areas. The Company also did not prepare any programme for publicity and for generating awareness among the entrepreneurs about the importance of rainwater harvesting as recommended by the IDC.

Recommendations

We recommend that the Company should:

- prepare and implement an effective strategy to ensure mandatory installation of RWHSs by the allottees within prescribed time frame. The Company should also initiate effective action against the entrepreneurs where there is slackness in installation of RWHS;
- prescribe technical parameters and the technology to be used by the allottees for installation of RWHS based upon the topography of the industrial areas;
- issue directions to the Unit Offices for mandatory verification of the RWHSs prior to treating a unit as 'under production' and issuing no-objection certificate, transfer of land, *etc.* The Company may also consider obtaining photographic evidence of the constructed RWHS duly certified by the competent authority;
- issue directions to the Unit Offices for periodical verification of the units to ensure that the RWHSs are being properly maintained by the allottees; and
- prepare and implement programmes for publicity and for generating awareness among the entrepreneurs about the importance of rainwater harvesting.

4.4 Fixation of reserve price on lower side

The Unit Office (Neemrana) caused loss of ₹ 1.73 crore due to fixation of reserve price below the minimum rate prescribed by the State Government on regularisation of unauthorised occupation of land.

The 'RIICO Disposal of Land Rules, 1979' (RIICO Rules) framed by Rajasthan State Industrial Development and Investment Corporation Limited (Company) defines a strip of land as a piece of land adjoining one or more existing plots which cannot be put to independent use because either it could not be planned as an independent plot in conformity with the town planning norms or there can be no approach to such piece of land.

Rule 12 (B-2) of the RIICO Rules provided that the rate of allotment of a strip of land in case of commercial plots would be four times the prevailing rate of allotment of industrial land or the highest auction rate received in the last auction for commercial purpose, whichever is higher. In case, any strip of land

is so located that it could be used by the owners of more than one adjoining plots, such strip of land would be disposed by a limited auction between the owners of all adjoining plots. The strip of land would be allotted at the rates not less than the rates mentioned in the Rule, if the owner of only one adjoining plot shows interest in purchasing the land during auction.

The Unit Office (Neemrana) allotted (December 1998) 20125 square meter (sqm) land (CC-1 plot) to Vanchari Hotels Private Limited¹⁴ (VHPL) for commercial purpose. However, VHPL was also in unauthorized occupation of 1684 sqm land adjacent to its plot.

The fact of unauthorized occupation of land came to the notice of Unit Office (Neemrana) during August 2013 at the time of inspection of industrial area Neemrana-I. The Unit Office directed (October 2013) VHPL to vacate the land and in response (December 2013), VHPL proposed to purchase the strip of land on allotment rate plus interest.

The strip of land was located between CC-1 and CC-2 plots and, therefore, the Unit Office invited (March 2014) sealed bids from both the owners. The reserve price (₹ 12000 per sqm) for the strip of land was fixed (March 2014) at four times the prevailing rate (₹ 3000 per sqm) of development charges. The owner of CC-2 plot did not submit the bid while VHPL submitted (April 2014) its willingness to purchase the land without quoting any rate. The Company allotted (May 2014) the strip of land to VHPL at the reserve price.

We noticed (August 2015) that the Unit Office fixed the reserve price (₹ 12000 per sqm) of the strip of land at four times the prevailing rate (₹ 3000 per sqm) of development charges. The Unit Office submitted to the Head Office that the highest auction rate received (June 2011) for a commercial plot was ₹ 9501 per sqm and fixation of reserve price based on this rate would be on the lower side.

We also observed that the Unit Office fixed the reserve price of the strip of land without considering the prevailing market conditions as the minimum rate (₹ 22270 per sqm) of allotment (DLC¹⁵ rate) fixed by the State Government for commercial land in this area was much higher than the reserve price fixed by the Unit Office. The Unit Office did not consider the DLC rate despite the fact that in respect of another commercial plot (CC-13 admeasuring 5782 sqm) in the same industrial area, it had earlier proposed (3 February 2014) reserve price of ₹ 25000 per sqm on the basis of prevailing DLC rate which was approved¹⁶ (October 2014) by the Head Office of the Company. Further, DLC rates fixed by the State Government are minimum rates of allotment in an area and Rule 12 (B-2) of the RIICO Rules did not prohibit the Company to fix reserve price above the DLC rates.

The Company could have at least fixed the reserve price of the strip of land considering the DLC rate of the area. The Unit Office, therefore, caused loss

14 The land was originally allotted to Dorata Shopping complex which was subsequently renamed (June 2000) as Modern Builders. The land was transferred in the name of VHPL after acquisition of Modern builders by VHPL.

15 DLC stands for District Level Committee. The District Level Committee kept the rates unchanged at the time of revision during December 2014.

16 Delay in approval was due to 'Model Code of Conduct' enforced by the Election Commission.

of ₹ 1.73 crore¹⁷ to the Company due to fixation of reserve price below the minimum rate prescribed by the State Government on regularisation of unauthorised occupation of land.

The Government stated (June 2016) that there was no rule to consider the DLC rate while fixing the reserve price for disposal of strip of land. The reply was not convincing as the Unit Office had neither considered the DLC rate as a criteria for fixing the reserve price based on the prevailing market rate nor followed the highest auction rate received in the last auction as stipulated in Rule 12 (B-2) of RIICO Rules.

Rajasthan Rajya Vidyut Utpadan Nigam Limited

4.5 Under recovery of compensation against excess wear rate of High Chrome grinding media balls

The Company adopted incorrect methodology for computation of recovery against excess wear rate of High Chrome grinding media balls leading to under recovery of compensation of ₹ 6.27 crore.

Rajasthan Rajya Vidyut Utpadan Nigam Limited (Company) procured 8491.98 Metric Tonne (MT) High Chrome grinding media balls from R.N. Metals, Jaipur (Supplier) under various tenders¹⁸ during 2011-15 for pulverization of coal at its thermal power plants¹⁹. The Clauses of the purchase orders relating to 'wear rate guarantee' and 'performance guarantee' provided that the Supplier shall guarantee the wear rate²⁰ of High Chrome grinding media balls at the rate of 110 gram/MT of coal crushed irrespective of the quality of coal. The purchase orders further provided that the new grinding media balls would be charged in test mills of SSTPS/KSTPS/CTPP after completely emptying the old grinding media balls and the wear rate would be computed only once for the quantity of grinding media balls used for a period of one year or from annual shutdown to next annual shutdown (maximum 15 months), whichever was feasible. Such computed wear rate would then be made applicable on the total supplied quantity under the purchase order irrespective of the material being mixed in other mills with old material as per operational requirements of the SSTPS, KSTPS and CTPP. In case the wear rate of grinding media balls was found to be higher than 110 gram/MT, the tenders provided one of the following conditions:

- the Supplier shall supply the additional grinding media balls free of cost for topping up due to additional wear rate above 110 gram/MT (Tender notice 101/11);

17 (₹ 22270 per sqm less ₹ 12000 per sqm) X 1684 sqm.

18 Tender notice 101/11 (3236.56 MT) during 2011-12, 2012-13 and 2014-15, Tender notice 104/12 (1432.894 MT) during 2012-13 and 2014-15 and Tender notice 108/13 (3822.533 MT) during 2013-14, 2014-15 and 2015-16.

19 Suratgarh Super Thermal Power Station (SSTPS), Kota Super Thermal Power Station (KSTPS) and Chhabra Thermal Power Project (CTPP).

20 Wear rate = [Weight of balls charged in the test mill including balls topped up during the corresponding period less weight of balls received after draining] / Weight of coal crushed during the corresponding period.

- an amount at the rate of ordered price of the High Chrome grinding media balls shall be recovered from the Supplier for the quantity worked out against excess wear rate (Tender notice 104/12);
- an amount at the rate of 1.25 times of the ordered F.O.R²¹ prices of the High Chrome grinding media balls would be recovered from the Supplier for the quantity worked out against excess wear rate (Tender notice 108/13);

We noticed (March 2016) that the Company determined the wear rates of high chrome grinding media balls at the three thermal stations ranging between 114.33 gram/MT and 195.28 gram/MT. The Company, however, calculated²² the ratio of excess balls consumed to total balls charged in the test mill and applied this ratio to the total supplied quantity for working out the compensation for excess consumption of balls than the guaranteed wear rate. This methodology adopted by the Company for working out compensation was not correct because the compensation for excess wear rate had to be worked out after deducting the weight of the balls not consumed as done for calculating the wear rate. This would have been in consonance with the applicable Clauses of guaranteed wear rate of High Chrome grinding media balls.

We further noticed that the Chief Accounts Officer (Thermal Design) of the Company had raised (July 2015) the issue of incorrect methodology adopted for recovery of compensation towards excess wear rate. However, the Committee²³ constituted (15 December 2015) to review the case decided (23 December 2015) to continue with the prevailing methodology on the grounds that the High Chrome grinding media balls initially charged in the test mill along with top-up balls had contributed to grinding of the coal and, therefore, recovery should be calculated on the basis of total balls charged in the test mill.

The decision of the Committee was not based on the applicable clauses of purchase orders where the calculation of wear rate had been prescribed after excluding the High Chrome grinding media balls drained from the test mill. Incorrect methodology adopted for computation of recovery against excess wear rate of High Chrome grinding media balls caused under recovery of compensation of ₹ 6.27 crore (**Annexure-5**).

The Company in its reply (June 2016) explained the working of the test mill and reiterated the views of the Committee. The Company in subsequent reply (July 2016) stated that the methodology adopted by various power stations for last many years has been adopted and admissible recoveries were made from the contractors. It was further stated that the matter had been reviewed and methodology and recoveries made had been considered as correct. The Government endorsed (July 2016) the reply of the Company.

21 Free on Rail/Road.

22 (Quantity of excess worn out balls / Quantity of balls charged in the test mill) X Quantity supplied against Purchase order.

23 Chief Engineer (KSTPS), Chief Engineer (O&M, SSTPS), Chief Engineer (O&M, CTPP), Chief Controller of Accounts (KSTPS), Chief Controller of Accounts (Head Office), Chief Controller of Accounts (SSTPS) and Chief Accounts Officer (CTPP).

Rajasthan State Hotels Corporation Limited

4.6 *Imprudent financial management*

The Company incurred loss of interest of ₹ one crore due to parking of funds in current account besides non fulfillment of objectives for which the sanction of funds was made.

Rajasthan State Hotels Corporation Limited (Company) operates Hotel Khasa Kothi at Jaipur and Hotel Anand Bhawan at Udaipur. The Chief Minister, Rajasthan in the budget speech for the year 2013-14 announced (6 March 2013) a sum of ₹ 10 crore to the Company for renovation/up-gradation of the Hotel Khasa Kothi. The Company in consultation (15 July 2013) with the Department of Tourism, Government of Rajasthan (GoR), decided to execute various civil and electrical works under the programme of renovation/up-gradation of Hotel Khasa Kothi through Rajasthan Avas Vikas Infrastructure Limited²⁴ (RAVIL).

The Department of Tourism issued (25 September 2013) 'Administrative and Financial' sanction to transfer funds of ₹ 10 crore in the Personal Deposit (P.D) account of the Company as an interest free loan to be repayable in five equal yearly installments. The Finance Department, GoR, also issued sanction and transferred (3 January 2014) ₹ 10 crore in the P.D account of the Company. The terms of sanction stipulated that the funds would not be withdrawn for any other purpose except to meet the expenditure for the sanctioned purpose.

We observed (February 2016) that the Company did not prepare any scheme for renovation/up-gradation of Hotel Khasa Kothi. Further, in violation of the terms of sanction and without apprising the Finance Department, it withdrew (31 January 2014) the whole amount of ₹ 10 crore from the P.D account and deposited the same in the current account. The Company sought (24 February 2014) permission from the Finance Department to invest the funds in fixed deposit account. The permission was not granted (28 March 2014) on the grounds that the Department of Tourism/Company did not take steps for implementation of the budget announcement despite sufficient time.

Subsequently, the Company entered (8 May 2014) into a Memorandum of Understanding with RAVIL for renovation/up-gradation of Hotel Khasa Kothi at an estimated cost of ₹ 10 crore and released (2 June 2014) funds of ₹ 1.47 crore²⁵. The balance funds of ₹ 8.50 crore remained in the current account. The Company subsequently invested (June 2015) ₹ 7.50 crore in the fixed deposit account and remaining funds of ₹ one crore were utilised (June 2015 to October 2015) for day to day operations.

We further noticed that RAVIL awarded (21 October 2014) work order of ₹ 42.04 lakh only against the estimated expenditure of ₹ 10 crore on renovation/up-gradation of the Hotel Khasa Kothi. The Company requested (28 May 2015) RAVIL to refund the unutilised amount citing directions (May 2015) of the State Government prohibiting the Company from carrying out renovation/up-gradation works without prior permission. RAVIL refunded

24 A Government of Rajasthan company.

25 ₹ 1.50 crore less tax deducted at source ₹ 0.03 crore.

(18 August 2015) an amount of ₹ one crore which was invested (16 October 2015) by the Company in fixed deposit account.

We observed that:

- The Company failed to implement an effective programme for renovation/up-gradation of Hotel Khasa Kothi despite being provided interest free loan by the State Government.
- The Company, in violation of terms of sanction, withdrew (January 2014) the funds and parked (June and October 2015) in fixed deposit without approval of the Finance Department. Had the funds not been withdrawn by the Company, the State Government could have utilised the funds for other projects.

It was further observed that even the decision of the Company to keep the funds in current account after withdrawal was not as per the financial prudence as the funds remained idle for a period of 18 months. The Company could have at least earned interest of ₹ one crore²⁶ had the funds been parked in interest bearing accounts instead of current account.

The Company stated (July 2016) that the State Government did not impose any condition on withdrawal of funds from the P.D account. Further, the loan funds could not be invested in fixed deposit because the Finance Department did not give permission for the same. The reply was not convincing because the terms of sanction issued by the Finance Department clearly stipulated that the funds would not be withdrawn for any other purpose except to meet out the expenditure for the sanctioned purpose. Further, the decision of the Finance Department should be seen in light of the fact that it was not aware about withdrawal of funds by the Company from the P.D account.

The Government endorsed (August 2016) the reply of the Company.

Rajasthan State Mines and Minerals Limited

4.7 Double payment of Cess on Mineral Rights to the State Government

Double payment of mineral cess on Mineral Rights to the State Government on low grade Rock Phosphate purchased from HZL due to inaction on the clarification issued by the Department of Mines.

The Government of Rajasthan (GoR) levied (February 2008) 'Environment and Health Cess' (Cess) on Mineral Rights (MR) on Rock Phosphate at the rates notified from time to time. The Rules (Rajasthan Environment and Health Cess Rules, 2008) governing levy of MR Cess notified in June 2008 provided that excess payment of Cess by a lessee would be refunded on an application made within a period of one year from the date of such payment.

26 Calculated at the rate of 8.50 per cent per annum, being the rate at which interest was earned by the Company in fixed deposit account. Loss of interest = loss of interest of ₹ 0.28 crore on ₹ 10 crore during the period February 2014 to May 2014 and loss of interest of ₹ 0.72 crore on ₹ 8.50 crore during the period June 2014 to May 2015.

Rajasthan State Mines and Minerals Limited (Company) purchased 2.64 lakh Metric Tonne²⁷ low grade Rock phosphate from Hindustan Zinc Limited (HZL) during 2010-13. The low grade ore was used to make uniform grade (31.5 per cent) Rock Phosphate after blending with high grade Rock Phosphate produced by the Company from its own mines. The Company sought (January 2010) clarification from Department of Mines, GoR as regards payment of Cess on sale of Rock Phosphate purchased from HZL after blending and processing by the Company. The Department of Mines with the approval of Department of Finance, clarified (February 2010) that there was no justification for payment of MR Cess to the State Government on the low grade ore blended and sold by the Company as HZL had already deposited MR Cess.

We observed (February 2016) that the Company (2010-11 to 2012-13) paid ₹ 13.18 crore to HZL towards MR Cess on purchase of low grade ore. It also paid (2010-11 to 2013-14) MR Cess to the State Government on the quantity of uniform grade Rock Phosphate sold to the consumers. The Company, however, did not adjust/set-off MR Cess already paid to HZL at the time of making payment to the State Government. As a result of inaction by the Company on the clarification issued by the Department of Mines, a payment of ₹ 9.43 crore²⁸ of MR Cess on low grade ore purchased from HZL was made twice to the State Government.

The Company, after a gap of four years sought (January 2014) further clarification in this regard from the Finance Department, GoR and Inspector General, Registration & Stamps, GoR (IG Stamps). The IG Stamps intimated (June 2014) the Finance Department that the Company was not liable to pay Cess on the Rock Phosphate purchased from HZL and also clarified that the amount paid by the Company to HZL towards MR Cess could be set-off in case the Company had not recovered this amount from the consumers. Based on this clarification, the Company pursued (October 2014) with the IG Stamps for refund of MR Cess of ₹ 9.43 crore. The Company, however, did not get refund of the MR Cess (February 2016). There was bleak possibility of getting refund of ₹ 9.43 crore as the Company had to apply for refund of excess payment of MR Cess within one year from the date of payment as per the Rajasthan Environment and Health Cess Rules, 2008 (Rules).

The Company stated (June and July 2016) that pending assessment by the Assessing Officer, the Company had adjusted (June/July 2016) the entire payment of ₹ 9.43 crore as per Rule 6 of the Rajasthan Environment and Health Cess Rules, 2008. The reply was not convincing because:

- Rule 6 allowed the Company to only revise the returns before assessment by the Assessing Officer in case of any omission or wrong statement in the filed returns. The *suo moto* adjustment made by the Company was not correct as it was required to claim refund of the excess payment made to the Government within a period of one year.

27 2010-11 (1471.45 MT), 2011-12 (48013.09 MT), 2012-13 (214065.77 MT).

28 Low grade ore involving payment of MR Cess of ₹ 3.75 crore had not been sold by the Company (February 2016).

- By doing so the Company made short payment of MR Cess to the State Government for the current financial year (2016-17) and, therefore, runs the risk of attracting penalty as per applicable Rule 11.

The Government endorsed (August 2016) the reply of the Company.

4.8 *Extra expenditure*

The Company terminated the rate contract without any justification and purchased additive at higher rates causing extra expenditure of ₹ 37.03 lakh.

Rajasthan State Mines and Minerals Limited (Company) invited (June 2013) tenders for purchase of 'Calcite mineral for use as additive' and issued (January 2014) rate contract to the lowest (L1) bidder (Surbhi Process, Pali) for total tendered quantity of 70000 Metric Tonne (MT) at the rate of ₹ 786.82 per MT. Surbhi Process was required to supply the quantity within two years @ 35000 MT per annum from the date of issue of rate contract. However, the supply schedule was not fixed and the additive was to be supplied as intimated by the Company from time to time. Apart from the rate contract with L1 bidder, the Company also explored (December 2013) possibilities for a parallel rate contract with L2 bidder (Kalpana Minerals & Chemical, Udaipur) so as to ensure uninterrupted supply as the L1 bidder was the fresh supplier to the Company. The parallel rate contract, however, could not materialise because Kalpana Minerals agreed to accept the rate of L1 bidder only on the condition of supplying 50 *per cent* of the total tendered quantity instead of 25 *per cent* offered by the Company.

The supply position of Surbhi Process was not satisfactory and as a result the Company again offered (March 2014) the L1 rate to Kalpana Minerals. During negotiations (March 2014), Kalpana Minerals insisted on award of supply order for atleast 35 *per cent* (24500 MT) of the total tendered quantity. The Company, however, issued (July 2014) rate contract for supply of only 13125 MT (18.75 *per cent*) additive at the rate of the L1 bidder. Kalpana Minerals was required to supply the material upto 23 December 2015 @ 8750 MT per annum. Further, the rate contract of Surbhi Process was reduced (July 2014) to 56875 MT.

The Company noticed (March 2015) that Surbhi Process was supplying the additive in the name of "Crystalline Metamorphosed Calcite Additive" enclosing 'Rawannas'²⁹, issued by Directorate of Mines and Geology (DMG) wherein the name of mineral was mentioned as 'Marble Khanda'. The additive supplied by Surbhi Process met the specifications mentioned in the rate contract.

The Company submitted (April 2015) the details (chemical and physical specifications) of additive to the DMG and asked (April 2015) whether there was any revenue loss to the State Government on account of royalty due to supply of additive by Surbhi Process under the 'Rawanna' issued for 'Marble

²⁹ As per Rule 2(i) of the Rajasthan Minerals (Prevention of Illegal Mining, Transportation and Storage) Rules, 2007, 'Rawanna' means a challan used for dispatch of mineral from valid mining lease area. It is issued by the Department of Mines and Geology.

Khanda' mineral. The DMG replied (May 2015) that supply of Calcite mineral from the mining lease allotted for 'Marble Khanda' mineral could not be considered as legal.

The Company terminated (June 2015) the rate contracts of both firms on the basis of reply received from DMG and invited (June 2015) fresh tenders giving specifications of the additive and without mentioning the name of mineral Calcite. Surbhi Process and Kalpana Minerals had supplied 14283 MT and 6495 MT additive respectively till the termination of rate contracts. The rate contracts, based on the tenders, were again awarded (September 2015) to Surbhi Process and Kalpana Minerals for a period of one year for supply of 21000 MT and 9000 MT additive respectively at the rate of ₹ 1050 per MT. Meanwhile, the Company also purchased (August 2015) 2500 MT additive from Mahaveer Minerals at the rate of ₹ 1100 per MT through limited tender enquiry.

We observed (February 2016) that the initial rate contracts entered into with Surbhi Process (January/July 2014) and Kalpana Minerals (July 2014) did not contain any provision as regards production of 'Rawannas' by the suppliers. The Company was well aware of the fact that Surbhi Process was a trading firm whereas Kalpana Minerals was supplying the additive from its own mines. The decision of the company to terminate the rate contract of Surbhi Process was justified as it could involve legal complexities as per the reply of the DMG. However, the decision to terminate the rate contract of Kalpana Minerals was not prudent as it was supplying the additive in the name of Calcite mineral and its supply position was satisfactory. Further, the Company procured the same additive from both the firms at higher rates in subsequent tender.

Had the Company procured minimum 35 per cent (24500 MT) quantity of additive from Kalpana Minerals as insisted by it, instead of terminating the rate contract, the Company could have avoided extra expenditure of ₹ 37.03 lakh³⁰ made on purchases from Mahaveer Minerals through limited tender enquiry and Surbhi Process under new tender.

The Company stated (June 2016) that termination of parallel rate contract of Kalpana Minerals was considered prudent at the time of termination of the rate contract of L1 bidder because it was awarded on the same terms and conditions as that of L1 bidder and it could have raised question on the entire process, if it was not done so. The Company also stated that it had decided to offer only 25 per cent quantity to Kalpana Minerals and, therefore, 35 per cent quantity as requested by Kalpana Minerals could not be awarded. Furthermore, the Indian Bureau of Mines (IBM) had enhanced (April 2015) the rate of royalty from ₹ 55.50 per MT to ₹ 120 per MT which had increased the cost of calcite.

The reply was not convincing because both the contracts were independent of each other. The Company's decision to award rate contract to Kalpana

30 Extra expenditure of ₹ 7.83 lakh [2500 MT X (₹ 1100 per MT - ₹ 786.82 per MT)] on purchase of additive from Mahaveer Minerals through limited tender enquiry and extra expenditure of ₹ 40.81 lakh [(24500 MT - 6495 MT - 2500 MT) X (₹ 1050 per MT - ₹ 786.82 per MT)] on purchase of additive from Surbhi Process in new tender less ₹ 11.61 lakh on account of increase in royalty by IBM.

Minerals for only 13125 MT was also not justified in view of unsatisfactory supply position of Surbhi Process. Further, increase in the rate of royalty by IBM from April 2015 was only ₹ 64.50 per MT and the impact (₹ 11.61 lakh³¹) has already been reckoned in the calculation.

The Government endorsed (August 2016) the reply of the Company.

Rajasthan State Road Development and Construction Corporation Limited

4.9 Collapse of approach walls of Road over Bridge

The approach walls of Road over Bridge on Hindaun-Gangapur city road collapsed due to lack of monitoring, poor quality of material, masonry and construction techniques. This caused wastage of public funds and an additional liability of ₹ 5.19 crore on the Company towards retrofitting work.

The Government of Rajasthan (GoR) entrusted (March 2006) the work of construction of 'Road over Bridge' (ROB) on Hindaun-Gangapur city road to Rajasthan State Road Development and Construction Corporation Limited (Company) at a sanctioned³² cost of ₹ 21.57 crore. The Company issued (March 2008) work order to Bhagat Contractors, Karauli (Contractor) with scheduled date of completion by 28 February 2009. The work was completed (February 2014) at a cost of ₹ 21.56 crore and traffic movement on the ROB was started from 17/18 February 2014. Some portions of the masonry retaining walls of the ROB, however, collapsed on the very next day (19 February 2014). The delinquent engineers who had certified the poor quality of masonry work of the contractor were suspended (February 2014) and the outcome of enquiry was pending (July 2016) at the level of Department of Personnel (GoR). The site was inspected by (i) the Chief Engineer (National Highways), Public Works Department, GoR on 19 February 2014, (ii) the Chief Project Manager (Kota Unit) on 24 February 2014 and (iii) an expert group of Malviya National Institute of Technology (MNIT), Jaipur on 25 June 2014.

The inspection reports of the Chief Engineer and the Chief Project Manager mentioned that quality of masonry work was very poor with most of the stones laid dry with very little quantity of mortar; quality of mortar was not good and placing of stones was irregular without any bond between the stones; vertical joints of stones were not staggered properly; and masonry could not bear the earth pressure and collapsed due to poor strength. The MNIT which conducted detailed inspection of the site reported (September 2014) that almost all the joints were weak; the approach wall sections were not strong enough to withstand the pressure exerted by the backfill soil even in dry condition as well as without traffic and might collapse anytime; the physical deterioration of walls from exposure was unlikely as the ROB was newly constructed and the cracks at several locations occurred due to poor construction,

31 ₹ 64.50 per MT X (24500 MT – 6495 MT).

32 The GoR initially (March 2006) sanctioned ₹ 10 crore which was revised to ₹ 16.75 crore in June 2010 and further to ₹ 21.57 crore in March 2013.

workmanship, quality of materials and construction techniques. The MNIT recommended construction of suitably designed new RCC³³ retaining wall.

The Board of the Company, based on the recommendation of MNIT, accorded (January 2015) approval to incur additional expenditure of ₹ 5.75 crore from its own fund to carry out the restoration work. The structural design and drawing for proposed retrofitting work of approach walls, duly proof checked by MNIT, was prepared and submitted (March 2015) by the consultant³⁴. As per design and drawing, the masonry walls of height more than seven meters were to be replaced by new RCC retaining walls after complete removal of the existing masonry walls. The retrofitting of masonry walls of height more than five meters was decided (April 2015) to be constructed in phase-I and masonry walls of height four to five meters and reconstruction of service road were to be constructed in phase-II. The estimated cost of retrofitting work for phase-I worked out to ₹ 7.83 crore (₹ 5.50 crore after excluding cement).

The Company invited (June 2015) tenders for first phase and issued (August 2015) work order in favour of the lowest bidder at a cost of ₹ 4.82 crore (excluding cement). The Company had incurred (July 2016) an expenditure of ₹ 5.19 crore towards retrofitting work. The estimated cost of phase-I was revised to ₹ 6.75 crore and proposal for sanction and release of funds was submitted (October 2015) to Public Works Department (GoR). The approval was, however, awaited (July 2016).

Audit scrutiny disclosed (November 2015) that the work of construction of ROB was regularly supervised by the Project Directors of Dausa Unit and inspections were also carried out by the General Manager and Deputy General Manager of the Company during execution of the work. However, the Project Directors and the inspection teams never raised any issue relating to the inferior quality of work being executed by the Contractor. The inferior quality of work was pointed out by the enquiry teams after collapse of the approach walls.

It was, therefore, apparent that there was failure in execution of quality work by the Contractor as well as monitoring of the project work by the Company. The internal control system was not adequate to ensure execution of work by the Contractor as per the project specifications. This resulted into collapse of the approach wall of the ROB besides causing wastage of public funds on construction of wall. The Company was also burdened with an additional liability of ₹ 5.19 crore (upto July 2016) towards retrofitting work. The liability of the Company towards retrofitting work in phase-I would increase to ₹ 6.75 crore as per the estimates prepared and proposal submitted to the Finance Department. The additional liability of works to be undertaken in phase-II had not yet been worked out (July 2016).

The Company accepted the facts and stated (March 2016) that the proposed expenditure was unavoidable because the retrofitting work of approach walls of the ROB was essential to facilitate the traffic movement. The fact, however, remained that poor supervision and quality issues burdened the Company with an additional liability towards retrofitting work which was necessary to

33 Reinforced Cement Concrete.

34 Thoughts Consultants Jaipur Private Limited, Jaipur.

maintain the strength of superstructure. The Government endorsed (May 2016) the reply of the Company.

We recommend that the Company should strengthen its internal control system as regards quality inspection/supervision by the designated engineers. We also recommend that there should be an independent third party inspection by the designated agencies.

Statutory Corporations

Rajasthan State Road Transport Corporation

4.10 Issue of Radio Frequency Identification cards under Rajasthan Guaranteed Delivery of Public Services Act, 2011

4.10.1 Introduction

The Government of Rajasthan (State Government) enacted (September 2011) 'The Rajasthan Guaranteed Delivery of Public Services Act, 2011 (Act)', to facilitate delivery of certain services to the people of the State within stipulated time period. The State Government also notified (October 2011) 'The Rajasthan Guaranteed Delivery of Public Services Rules, 2011' (Rules) in this regard.

Section 4 of the Act provides that the designated officer shall provide the notified service within stipulated time to the person eligible to obtain the service. In case a person is not provided a service within the stipulated time, the person may file an appeal to the first appellate authority within 30 days from the rejection of the application or expiry of the stipulated time limit. A second appeal may also be filed against the decision of the first appellate authority within a period of 60 days from the date of decision of first appeal. Where the second appellate authority is of the opinion that the designated officer has failed to provide service or caused delay without sufficient and reasonable cause, it may impose a lumpsum penalty between ₹ 500 and ₹ 5000, which shall be recoverable from the salary of the designated officer in accordance with the Section 7 of the Act.

The State Government notified (27 June 2012) additional services under Section 3 of the Act which included issue/renewal of identity card by the Rajasthan State Road Transport Corporation (Corporation) for free/concessional travelling to 18³⁵ category of persons. The Corporation allowed the facility of free/concessional travelling to the notified category of persons by issuing Radio Frequency Identification (RFID) cards.

4.10.2 The present study was conducted (January 2016 to March 2016) to assess whether the Corporation issued RFID cards within the stipulated time period as prescribed in the Act during the period 2014-15 to 2015-16 (upto 20 November 2015). The scope of audit also included assessment of the compliance to the other provisions of the Act by the Corporation as regards maintenance of records and display of information on the notice boards. The audit findings have been finalised considering replies (August 2016) of the

35 (i) Patrakar, (ii) freedom fighter, (iii) widow of freedom fighter, (iv) widow of martyr and their minor dependents, (v) scheduled tribe of the State and tribal girls studying upto class eighth, (vi) Padma awardees, (vii) visually challenged, (viii) Physically challenged/locomotive disabled, (ix) Hearing impaired, (x) Mentally challenged, (xi) low vision, (xii) Mental patient, (xiii) Leprosy recovered patient, (xiv) international sports awardee of the State, (xv) Persons awarded with President's medal for police gallantry or police medal for gallantry, (xvi) students, (xvii) Teachers of the State awarded with national or State award, and (xviii) Senior Citizens (more than 60 years).

Corporation. The Government endorsed (September 2016) the views of the Corporation.

4.10.3 The Corporation issued 275982 RFID cards during the period 2014-15 to 2015-16 (upto 20 November 2015). The Head office and six³⁶ depots out of 57 depots of the Corporation were selected to analyse the performance of the Corporation in the issue of RFID cards. The number of cards issued by the depots during the audit period formed the primary basis for selection of depots. Out of six depots, three³⁷ depots (Sriganganagar, Kotputli and Jhunjhunu) were selected on the basis of highest number of cards issued by them. The remaining three depots (Vidyadharnagar, Delhi, and Deluxe) were selected on the basis of least numbers of cards issued by them. Our scrutiny, therefore, involved analysis of 33079 (11.99 *per cent*) out of 275982 RFID cards issued by the Corporation during the period 2014-15 to 2015-16 (20 November 2015) as stated below.

(Figures in numbers)

Year	Head Office	Deluxe	Sriganga nagar	Jhunjhunu	Kotputli	Vidyadhar nagar	Delhi	Total
2014-15	261	241	7462	6061	5853	1	2	19881
2015-16	312	166	3653	3750	5316	0	1	13198
Total	573	407	11115	9811	11169	1	3	33079

4.10.4 Process of issue/renewal of RFID cards

The application for issue/renewal of RFID card is required to be made in a form issued by the Corporation along with fees and supporting documents prescribed in the Act and Rules. The Corporation has to provide acknowledgement of the application in Form-1 prescribed in the Rules. The acknowledgement shall mention the name and address of the applicant; date of receipt of application by the designated officer; name of the service for which application was given; essential documents not enclosed with the application; and last date of the stipulated time limit. In case, the applicant has not enclosed all the required documents, the designated officer shall not give the last date of the stipulated time limit.

The process involved in preparation of the RFID cards by the Corporation includes entering details of the beneficiaries in the online RFID module at the depot level; forwarding the details to the IT cell at Head office level; verification of the details by the IT cell; sending details to the service provider for preparation of RFID cards; printing of RFID cards by the service provider; re-checking of details entered by the service provider in the master data by the IT cell on receipt of the RFID card; and issue of RFID card to the beneficiary.

36 Jhunjhunu, Sriganganagar, Kotputli, Delhi, Vidyadharnagar and Deluxe depot.

37 CBS Jaipur and Sikar depots were in the order of hierarchy of issue of highest number of RFID cards but these depots were selected for Performance Audit (IT) on 'Computerisation of ticketing system by the Corporation'. Hence, Jhunjhunu depot was selected in place of CBS Jaipur and Sikar depots.

Audit findings

4.10.5 Non-maintenance/absence of proper records

Rule 17 of the Rules required the designated officer to maintain a register in Form-3 which shall include the name and address of the applicant; service for which the application has been received; last date of the stipulated time limit; application allowed/disallowed; and date and details of the order passed.

We noticed that the designated officers at the Head office and depots did not maintain the register in Form-3. The position of record (application and relevant supporting documents) maintained by the Head office and depots was as below:

Relevant record	Head Office	Kotputli	Jhunjhunu	Sriganganagar	Vidyadhar nagar	Delhi	Deluxe
Application for RFID card	✓	x	x	✓	x	✓	✓
Supporting documents enclosed with applications	✓	x	✓	✓	x	✓	✓

The position of maintenance of record by the depots was poor. The Kotputli depot did not provide any record of the applications and supporting documents received from the applicants. The Vidyadharnagar depot issued only one card during the audit period but the depot authorities were unaware about issue of any such card. It was also informed that no card was issued at the depot level. The Jhunjhunu depot directly received supporting documents without any application for preparation of RFID cards. The Head office and the remaining depots (except Delhi) accepted applications and supporting documents from the applicants but could not provide these to audit in a sequential manner for verification of the credentials of a particular card.

The Corporation accepted that the Kotputli, Jhunjhunu and Vidyadharnagar depots did not maintain proper record of issue of RFID cards. The Corporation issued (June 2016) directions to the Chief Managers of all depots to maintain proper records.

4.10.6 Delay in issue of RFID cards

In absence of proper record of applications, supporting documents and register in Form-3, it was not feasible to verify timely issue of RFID cards by the Corporation to the beneficiaries. We, therefore, obtained digital data of RFID cards from the Corporation and analysed the same through Interactive Data Extraction and Analysis (IDEA) software. In absence of actual date of receipt of application; date of the order, if any, passed by the designated officer and actual date of handing over of the RFID card, the date of inserting data and date of activation of the card by the Agency (Trimax I.T. Infra and Service Limited) were taken as cut-off dates for calculation of the time period involved in issue of RFID cards.

The Act provided a time period of three days to the designated officer for issue of RFID cards to the applicants from the date of submission of documents by them. The Corporation, however, instructed (April 2013) the Agency nominated for preparation of RFID card to mention a time period of 14 days on the acknowledgement receipt provided to the applicants for issue of cards.

We, however, calculated the delay in issue of RFID cards considering five calendar days (three working days and two holidays). The actual delay would have been much more in case the actual date of receipt of application and date of the order passed by the designated officer were available for analysis. The Corporation permitted (September 2013) the applicants to travel on the strength of the registration slip. However, even this facility was withdrawn from August 2014 onwards and applicant could not travel unless and until he/she had the RFID cards.

Data analysis disclosed that out of 33079 RFID cards issued by the Head office and the selected depots during the period 2014-15 to 2015-16 (20 November 2015), 249 RFID cards were cancelled due to printing of damaged/duplicate cards. The analysis of remaining 32830 cards disclosed that the performance of the Corporation in issuing cards to the beneficiaries within the stipulated time period prescribed in the Act was abysmal as only 125 cards were issued within five calendar days. The remaining 32705 (99.62 *per cent*) cards were issued with delays ranging from one to 543 days. Delay in maximum cases (69.51 *per cent*) ranged between six and 15 days followed by 16 and 30 days in 17.89 *per cent* cases; and one and five days in 11.69 *per cent* cases.

Analysis of cases having delay of more than 100 days disclosed that delay ranging between 101 and 200 days was observed in 36 cases; 201 and 300 days in 36 cases; 301 and 400 days in 17 cases; and delay of more than 400 days was observed in 10 cases.

The performance of the Corporation in issue of RFID cards to some selected categories is tabulated below:

Category	Total no. of RFID cards issued	RFID cards issued with delay	Delay in days			
			1-5	6-15	16-30	More than 30
Widow of martyr and their minor dependents	56	55	11	33	11	0
Visually challenged	128	124	20	92	12	0
Physically challenged/ locomotive disabled	2206	2162	356	1455	329	22
Hearing impaired	178	177	32	118	25	2
Mentally challenged	115	114	21	77	16	0
Mental patients	62	62	5	49	8	0
Leprosy recovered patient	12	12	1	7	4	0
Student	20198	20198	1915	14062	4216	5
Senior Citizens	9235	9202	1409	6587	1189	17

All the RFID cards of widow of martyr and their minor dependents, mental patients, leprosy recovered patients and students were issued with delays. The RFID cards in case of physically challenged, hearing impaired and senior citizens were issued after delays of more than 30 days.

The Corporation accepted the delay in issue of RFID cards and stated that the Transport Department (Government of Rajasthan) had been requested (April 2016) to allow 15 days for issue of RFID cards instead of three days as prescribed in the Act. As regards the cases which involved delay of more than 100 days, it was stated that the software replaced the date of activation of the card by the old activation date at the time of renewal of these cards. The service provider had been directed (June 2016) to make necessary modifications in the software in this regard. The reply as regards replacement of the activation date with the old activation date by the software was not correct because the date of activation in all cases was greater than the date of entering data.

4.10.7 Display of information on the notice board

Rule 7 of the Rules required the designated officer to display all relevant information related to services on the notice board in Form-2 for the convenience of the common public. The notice board was required to be installed at a conspicuous place of the office and all the necessary documents required to be enclosed with the application for obtaining the notified service had to be displayed on the notice board. Form-2 included the details of notified services; documents to be enclosed with the application; stipulated time limits for providing the services; designation and address of the first appeal officer; stipulated time limit for the disposal of first appeal; and designation and address of the second appellate authority.

We noticed that the Corporation did not take any steps to publicise the scheme for making the eligible beneficiaries aware of the benefits provided by the State Government. Further, the Corporation did not display the requisite information on the notice board at the Head office and other selected depots except at Sriganganagar and Jhunjhunu. The beneficiaries were, therefore, not made aware of their rights of getting the RFID cards issued within the stipulated time period and filing appeal to the first and second appellate authorities against the designated officer/rejection by first appeal officer. The Corporation issued majority of the cards with delays but not a single appeal was filed against the designated officer for delay in issue/renewal of RFID cards.

The Corporation accepted the facts and stated that directions had been issued (June 2016) to the Chief Managers of all depots to display the requisite information on the notice board.

The other findings related to RFID cards have been discussed in Chapter-III of the Audit Report.

Conclusion

The Corporation failed to issue the RFID cards within the stipulated time period prescribed in the Act as 99.62 per cent of the cards sample checked in Audit were issued with delay. The maintenance of records was poor. The designated officers did not maintain the register in Form-3 and the depots either did not maintain the record of applications and supporting documents or the available records were not sufficient to verify the eligibility of the card holders. The public remained unaware of the

benefits provided by the Government as the Head office and the selected depots (except Sriganaganagar and Jhunjhunu) did not display the requisite information on the notice board.

Recommendations

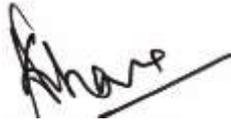
We recommend that the Corporation should revamp the process of issue of RFID cards so as to issue the cards within the prescribed time period. The Management should also monitor the compliance with directions issued to the depots.

JAIPUR
The 06 December 2016


(S. ALOK)
Accountant General
(Economic and Revenue Sector Audit), Rajasthan

Countersigned

NEW DELHI
The 13 December 2016


(SHASHI KANT SHARMA)
Comptroller and Auditor General of India

ANNEXURES

Annexure-1
(Referred to in paragraph 1.11 at page no. 7)

Statement showing investments made by State Government in PSUs during the years for which accounts are in arrears

(₹ in crore)

S. No.	Name of PSU	Year upto which accounts finalized	Paid up capital as per latest accounts finalised	Investment made by State Government during the year 2015-16 for which accounts are in arrears					Total
				Year	Equity	Loans	Subsidy	Loan Converted into Equity	
1	Jaipur City Transport Services Limited	2014-15	10.00	2015-16	-	-	2.93	-	2.93
2	Rajasthan Tourism Development Corporation Limited	2014-15	21.95	2015-16	-	8.00	-	-	8.00
	Total		31.95		-	8.00	2.93	-	10.93

Annexure – 2

(Referred to in paragraph 1.15 at page no. 8)

Summarised financial results of Government companies and Statutory corporations for the latest year for which accounts were finalised

(₹ in crore)

Sl. No.	Sector & Name of the Company	Period of accounts	Year in which finalised	Net profit(+) / Loss(-)				Turn over	Impact of accounts Comments [¥]	Paid up capital	Accumulated Profit (+)/ Loss (-)	Capital employed [†]	Return on capital employed	Percentage return on capital employed
				Net profit/ loss before interest & Depreciation	Interest	Depreciation	Net Profit /Loss							
1	2	3	4	5(a)	5(b)	5(c)	5(d)	6	7	8	9	10	11	12
A. Working Government Companies														
AGRICULTURE & ALLIED SECTOR														
1	Rajasthan State Seeds Corporation Limited	2015-16	2016-17	9.34	3.01	3.12	3.21	223.07	Increase in profit by ₹ 2.60 crore	7.59	101.10	108.69	6.22	5.72
Sector wise total				9.34	3.01	3.12	3.21	223.07		7.59	101.10	108.69	6.22	
FINANCE SECTOR														
2	Rajasthan Rajya Vidyut Vitran Vitta Nigam Limited	First account not received since inception		-	-	-	-	-	-	-	-	-	-	-
3	Rajasthan Small Industries Corporation Limited	2015-16	2016-17	2.06	0.51	0.71	0.84	106.71	Decrease in profit by ₹ 0.19 crore	6.96	-19.90	1.43	1.35	94.41
4	Rajasthan State Handloom Development Corporation Limited	2015-16	2016-17	0.58	0.01	0.05	0.52	17.87	-	46.06	-46.02	3.56	0.53	14.89
5	Rajasthan State Power Finance & Financial Services Corporation Limited	2015-16	2016-17	6.84	-	0.02	6.82	7.47	-	90.00	7.08	97.08	6.82	7.03
Sector wise total				9.48	0.52	0.78	8.18	132.05		143.02	-58.84	102.07	8.70	
INFRASTRUCTURE SECTOR														
6	Jaipur Smart City Limited	First account not due		-	-	-	-	-	-	-	-	-	-	-
7	Rajasthan Police Housing & Construction Corporation Limited	2015-16	2016-17	-0.01	-	-	-0.01	-	-	0.50	-0.05	0.45	-0.01	-2.22
8	Rajasthan State Industrial Development and Investment Corporation Limited	2015-16	2016-17	354.19	3.58	1.03	349.58	897.75	-	210.19	1560.05	1770.23	353.16	19.95

Sl. No.	Sector & Name of the Company	Period of accounts	Year in which finalised	Net profit(+) / Loss(-)				Turn over	Impact of accounts Comments ^v	Paid up capital	Accumulated Profit (+)/ Loss (-)	Capital employed ⁱⁱ	Return on capital employed	Percentage return on capital employed
				Net profit/ loss before interest & Depreciation	Interest	Depreciation	Net Profit /Loss							
1	2	3	4	5(a)	5(b)	5(c)	5(d)	6	7	8	9	10	11	12
9	Rajasthan State Road Development and Construction Corporation Limited	2015-16	2016-17	349.01	209.66	130.69	8.66	380.94	Increase in profit by ₹ 0.66 crore	100.00	74.23	2091.49	218.32	10.44
10	Rajasthan Urban Drinking Water Sewerage and Infrastructure Corporation Limited	2014-15	2015-16	0.83	-	0.08	0.75	0.25	-	33.00	2.54	35.54	0.75	2.11
11	Udaipur Smart City Limited	First account not due		-	-	-	-	-	-	-	-	-	-	-
Sector wise total				704.02	213.24	131.80	358.98	1278.94		343.69	1636.77	3897.71	572.22	
MANUFACTURE SECTOR														
12	Barmer Lignite Mining Company Limited (Subsidiary Joint Company of Sl. No. A(16))	2015-16	2016-17	83.17	43.80	25.30	14.07	860.08	-	20.00	3.34	1563.48	57.87	3.70
13	Rajasthan State Beverages Corporation Limited	2015-16	2016-17	13.84	-	0.43	13.41	4652.14	-	2.00	23.67	25.67	13.41	52.24
14	Rajasthan State Ganganagar Sugar Mills Limited	2015-16	2016-17	60.92	-	8.23	52.69	961.70	Increase in profit by ₹ 3.18 crore	181.29	66.05	247.84	52.69	21.26
15	Rajasthan State Gas Limited	2015-16	2016-17	-3.19	-	0.04	-3.23	-	-	27.05	-4.75	22.30	-3.23	-14.48
16	Rajasthan State Mines and Minerals Limited (Government Company since December 1974)	2015-16	2016-17	249.10	7.00	41.77	200.33	948.90	Decrease in Profit by ₹ 22.18 crore	77.55	1870.37	1947.92	207.33	10.64
17	Rajasthan State Petroleum Corporation Ltd. (subsidiary of Sl No. A(16))	2014-15	2015-16	-	-	-	-	-	-	11.10	-0.85	10.25	-	-
Sector wise total				403.84	50.80	75.77	277.27	7422.82		318.99	1957.83	3817.46	328.07	
POWER SECTOR														
18	Ajmer Vidyut Vitran Nigam Limited	2015-16	2016-17	-72.92	3013.19	417.89	-3504.00	8331.21	Increase in loss by ₹ 194.96 crore	6813.15	-30347.76	2255.60	-490.81	-21.76
19	Banswara Thermal Power Company Limited (Subsidiary of Sl. A (29))	2015-16	2016-17	-0.24	-	0.02	-0.26	-	-	0.05	-8.82	-8.77	-0.26	-
20	Barmer Thermal Power Company Limited (Subsidiary of Sl. No. A(29))	2015-16	2016-17	-0.01	1.78	-	-1.79	-	-	0.05	-11.75	-11.70	-0.01	-

Audit Report No. 5 (Public Sector Undertakings) for the year ended 31 March 2016

Sl. No.	Sector & Name of the Company	Period of accounts	Year in which finalised	Net profit(+) / Loss(-)				Turn over	Impact of accounts Comments ^v	Paid up capital	Accumulated Profit (+)/ Loss (-)	Capital employed ⁱⁱ	Return on capital employed	Percentage return on capital employed
				Net profit/ loss before interest & Depreciation	Interest	Depreciation	Net Profit /Loss							
1	2	3	4	5(a)	5(b)	5(c)	5(d)	6	7	8	9	10	11	12
21	Chhabra Power Limited (Subsidiary of Sl. A (30))	2015-16	2016-17	-	-	-	-	-	-	0.05	-0.03	0.02	-	-
22	Dholpur Gas Power Limited (Subsidiary of Sl. A (30))	2015-16	2016-17	-	-	-	-	-	-	0.05	-0.03	0.02	-	-
23	Giral Lignite Power Limited (Subsidiary of Sl. A (30))	2015-16	2016-17	48.37	99.94	86.82	-138.39	90.43	Increase in loss by ₹ 26.05 crore	370.05	-466.49	371.64	-38.45	-10.35
24	Jaipur Vidyut Vitran Nigam Limited	2015-16	2016-17	-459.47	3319.93	683.51	-4462.91	11502.12	Increase in loss by ₹ 121.77 crore	7354.30	-32294.00	-4429.63	-1142.98	-
25	Jodhpur Vidyut Vitran Nigam Limited	2015-16	2016-17	295.24	3102.40	466.71	-3273.87	9983.61	Decrease in loss by ₹ 172.99 crore	6802.42	-29995.03	1984.45	-171.47	-8.64
26	Keshoraipatan Gas Thermal Power Company Limited (Subsidiary of Sl. No. A(29))	2015-16	2016-17	-0.01	-	-	-0.01	-	-	0.05	-2.02	-1.97	-0.01	-
27	Lake City Transmission Service Company Limited (Subsidiary of Sl. No. A(29))	2015-16	2016-17	-0.01	-	-	-0.01	-	-	0.05	-0.30	-0.25	-0.01	-
28	Pink City Transmission Service Company Limited (Subsidiary of Sl. No. A(29))	2015-16	2016-17	-0.01	-	-	-0.01	-	-	0.05	-0.26	-0.21	-0.01	-
29	Rajasthan Rajya Vidyut Prasaran Nigam Limited	2015-16	2016-17	1486.11	735.84	659.89	90.38	2708.36	-	3826.16	-1327.80	11498.98	826.22	7.19
30	Rajasthan Rajya Vidyut Utpadan Nigam Limited	2015-16	2016-17	2096.67	1979.74	1055.89	-938.96	9962.06	Decrease in loss by ₹ 29.33 crore	8731.09	-4953.14	28175.86	1040.78	3.69
31	Rajasthan Renewable Energy Corporation Limited	2015-16	2016-17	38.62	1.12	12.02	25.48	84.55	Increase in profit by ₹ 3.83 crore	12.94	134.72	147.66	26.60	18.01
32	Rajasthan Solarpark Development Company Limited (Subsidiary of Sl. No. A(31))	2015-16	2016-17	2.74	-	-	2.74	0.68	Increase in profit by ₹ 3.39 crore	0.05	2.90	64.15	2.74	4.27
33	Rajasthan Urja Vikas Nigam Limited	2015-16	2016-17	-	-	-	-	-	-	-	-	-	-	-
Sector wise total				3435.08	12253.94	3382.75	-12201.61	42663.02		33910.51	-99269.81	40045.85	52.33	
SERVICE SECTOR														
34	Bikaner City Transport Services Limited	2013-14	2014-15	0.02	-	-	0.02	-	-	0.30	0.08	0.38	0.02	5.26
35	Jaipur City Transport Services Limited	2014-15	2015-16	-16.15	-	8.50	-24.65	74.48	Decrease in loss by ₹ 0.74 crore	10.00	11.87	120.52	-24.65	-20.45

Sl. No.	Sector & Name of the Company	Period of accounts	Year in which finalised	Net profit(+) / Loss(-)				Turn over	Impact of accounts Comments ^v	Paid up capital	Accumulated Profit (+)/ Loss (-)	Capital employed ⁱⁱ	Return on capital employed	Percentage return on capital employed
				Net profit/ loss before interest & Depreciation	Interest	Depreciation	Net Profit /Loss							
1	2	3	4	5(a)	5(b)	5(c)	5(d)	6	7	8	9	10	11	12
36	Jaipur Metro Rail Corporation Limited	2015-16	2016-17	-12.58	16.13	61.49	-90.20	9.15	-	442.16	-90.13	2102.40	-74.07	-3.52
37	Jodhpur Bus Services Limited	2015-16	2016-17	-1.31	-	-	-1.31	-	-	0.30	-1.31	-1.01	-1.31	-
38	Kota Bus Services Limited	First account not received		-	-	-	-	-	-	-	-	-	-	-
39	Kota City Transport Services Limited	2011-12	2016-17	-	-	-	-	-	-	0.10	-0.01	0.09	-	-
40	RajCOMP Info Services Limited	2014-15	2015-16	9.98	0.06	0.54	9.38	24.48	Decrease in profit by ₹ 1.60 crore	5.00	28.89	33.89	9.44	27.85
41	Rajasthan Civil Aviation Corporation Limited	2015-16	2016-17	-0.20	-	-	-0.20	-	-	4.49	-6.37	-1.88	-0.20	-
42	Rajasthan Ex-Servicemen Corporation Limited	2015-16	2016-17	1.63	0.01	0.04	1.58	83.72	-	5.00	3.32	8.32	1.59	19.11
43	Rajasthan Medical Services Corporation Limited	2015-16	2016-17	16.91	2.10	3.05	11.76	461.25	-	5.00	8.43	44.52	13.86	31.13
44	Rajasthan Skill and Livelihoods Development Corporation	2015-16	2016-17	1.88	0.01	0.26	1.61	68.25	-	0.05	-10.24	-10.19	1.62	-
45	Rajasthan State Food & Civil Supplies Corporation Limited	2014-15	2015-16	13.97	6.88	0.61	6.48	512.07	Decrease in profit by ₹ 3.03 crore	50.00	27.22	72.22	13.36	18.50
46	Rajasthan State Hotels Corporation Limited	2014-15	2015-16	-1.14	0.04	0.08	-1.26	1.47	Increase in loss by ₹ 2.12 crore	2.16	-8.51	-0.35	-1.22	-
47	Rajasthan Tourism Development Corporation Limited	2014-15	2015-16	-18.57	0.22	3.75	-22.54	78.26	Increase in loss by ₹ 0.09 crore	21.95	-125.06	-93.74	-22.32	-
48	Udaipur City Transport Services Limited	2010-11	2012-13	0.07	-	-	0.07	0.01	-	0.30	0.15	0.45	0.07	15.56
Sector wise total				-5.49	25.45	78.32	-109.26	1313.14		546.81	-161.67	2275.62	-83.81	
Total A (All sector wise working companies)				4556.27	12546.96	3672.54	-11663.23	53033.04		35270.61	-95794.62	50247.40	883.73	
B. Working Statutory corporations														
FINANCE SECTOR														
1	Rajasthan Financial Corporation	2015-16	2016-17	52.17	40.07	0.35	11.75	69.06	-	160.73	-122.53	663.54	51.82	7.81
Sector wise total				52.17	40.07	0.35	11.75	69.06		160.73	-122.53	663.54	51.82	
SERVICE SECTOR														
2	Rajasthan State Road Transport Corporation	2015-16	2016-17	-596.71	90.19	67.20	-754.10	1668.57	-	638.96	-3521.00	-1717.85	-663.91	-

Audit Report No. 5 (Public Sector Undertakings) for the year ended 31 March 2016

Sl. No.	Sector & Name of the Company	Period of accounts	Year in which finalised	Net profit(+) / Loss(-)				Turn over	Impact of accounts Comments ^v	Paid up capital	Accumulated Profit (+)/ Loss (-)	Capital employed ^μ	Return on capital employed	Percentage return on capital employed
				Net profit/ loss before interest & Depreciation	Interest	Depreciation	Net Profit /Loss							
1	2	3	4	5(a)	5(b)	5(c)	5(d)	6	7	8	9	10	11	12
3	Rajasthan State Warehousing Corporation	2015-16	2016-17	42.37	4.30	6.37	31.70	63.98	-	7.85	148.61	341.78	36.00	10.53
Sector wise total				-554.34	94.49	73.57	-722.40	1732.55		646.81	-3372.39	-1376.07	-627.91	
Total B (All sector wise working Statutory corporations)				-502.17	134.56	73.92	-710.65	1801.61		807.54	-3494.92	-712.53	-576.09	
Grand Total (A + B)				4054.10	12681.52	3746.46	-12373.88	54834.65		36078.15	-99289.54	49534.87	307.64	
C. Non working Government companies														
AGRICULTURE & ALLIED SECTOR														
1	Rajasthan State Agro Industries Corporation Limited	2012-13	2014-15	-0.15	1.28	-	-1.43	-	-	6.01	-51.77	-28.81	-0.15	-
2	Rajasthan State Dairy Development Corporation Limited	2015-16	2016-17	-	-	-	-	-	-	2.88	-0.22	2.66	-	-
Sector wise total				-0.15	1.28	-	-1.43	-		8.89	-51.99	-26.15	-0.15	
MISC SECTOR														
3	Rajasthan Jal Vikas Nigam Limited	2014-15	2015-16	-0.01	-	-	-0.01	-	-	1.27	-1.76	-0.48	-0.01	-
Sector wise total				-0.01	-	-	-0.01	-		1.27	-1.76	-0.48	-0.01	
Total C (All sector wise non-working Government Companies)				-0.16	1.28	-	-1.44	-		10.16	-53.75	-26.63	-0.16	
Grand Total (A + B + C)				4053.94	12682.80	3746.46	-12375.32	54834.65		36088.31	-99343.29	49508.24	307.48	0.62

¥ Includes the net impact of comments of Statutory Auditors and CAG.

μ Capital employed represents the sum of shareholders' funds and long term borrowings.

Annexure-3
(Referred to in paragraph 2.24 at page no. 35)
Statement showing excess consumption of coal due to higher Station Heat Rate

Particulars	Unit -I		Unit -II	Total
	2014-15 (7 May 2014 to 31 March 2015)	2015-16	2015-16 (25 July 2015 to 31 March 2016)	
Gross Generation (MUs) [A]	1147.39	3570.70	2350.50	
Station Heat rate as per norms of RERC (Kcal/kWh) [B]	2320.632	2320.632	2320.632	
Actual Station Heat Rate (Kcal/kWh) [C]	2742.19	2598.87	2606.16	
Coal Consumption (in MT) [D]	671405	2126563	1412291	
Average GCV of Coal (Kcal/kg) [E]	4497.81	4322.69	4305.12	
Heat required from coal for generation (in lakh Kcal) [F] = [A] X [B] X 10	26626700	82862807	54546455	
Coal required for gross generation (in MT) [G] = [F] / [E] X 100	591993	1916927	1267014	
Excess consumption of coal (in MT) [H] = [D] – [G]	79413	209637	145277	434327
Average Rate of Coal (₹ per MT)	3862.99	4112.79	4160.25	
Value of excess coal consumed (₹ in crore)	30.68	86.22	60.44	177.34

Annexure-4
(Referred to in paragraph 2.25 at page no. 35)

Statement showing excess consumption of fuel oil as compared to the norms of RERC

Particulars	Unit -I		Unit -II	Total
	2014-15 (7 May 2014 to 31 March 2015)	2015-16	2015-16 (25 July 2015 to 31 March 2016)	
Unit Generated (MUs) [A]	1147.39	3570.70	2350.50	
Unit generated in kWh [B] = [A] X 1000000	1147390000	3570700000	2350500000	
Actual fuel consumption (ml/kWh) = [C]	11.156	2.474	1.967	
Actual fuel consumption (in ml) [D]	12800282840	8833911800	4623433500	
Actual fuel consumption(in KL) [E] = [D] / 1000000	12800	8834	4623	
Norms fixed by RERC (ml/kWh) [F]	0.50	0.50	0.50	
Fuel required as per Norms (in ml) [G]	573695000	1785350000	1175250000	
Fuel required as per Norms(In KL) [H] = [G] / 1000000	574	1785	1175	
Excess fuel consumed (In KL) [I] = [D] – [H]	12226	7049	3448	22723.00
Average Rate (₹ per KL) [J]	49801	36547	36547	
Value of excess fuel oil consumed (₹ crore) [K] = [I] X [J]	60.89	25.76	12.60	99.25

Annexure- 5

(Referred to in paragraph 4.5 at page no. 90)

(Statement showing under recovery of compensation towards excess wear rate of High Chrome grinding media balls)

The calculations of column 10, 11, 13 and 15 are explained below the table

TN/PO-No. and year of PO/ (year of finalization of recoveries)	Condition in PO for compensation/recovery	Location of the plant	Quantity supplied against PO (MT)	Quantity of balls charged in the test mill (MT)	Quantity of balls worn out in the test mill (MT)	Quantity of balls emptied after test period (MT)	Quantity of coal pulverized (MT)	Wear rate considered by the Company (gram per MT)	Quantity of excess worn out balls in grinding mill (MT)	Compensation worked out by Audit as per PO (MT)	Compensation/recovery worked out by the Company (MT) (figures as per records of the Company)	Under recovery of compensation (MT)	FOR site rate per MT as per PO (₹)	Under compensation/recovery (₹)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
TN 101/11 745-2011-12 and 1072-2012-13/ (2014-15)	Supply of grinding balls free of cost on wear rate above 110 gm/ton	Suratgarh	2083.030	134.822	71.450	63.369	410010.44	152.000	17.22	502.026	266.060	235.966	60217.70	14209330
		Kota	942.980	118.120	46.280	71.840	304283.90	152.000	12.78	260.399	102.460	157.939	60018.70	9479293
		Chhabra	210.550	193.360	134.960	58.402	554527.00	152.000	23.29	36.335	35.460	0.875	60053.50	52547
TN 104/12 1663-2012-13 and 553-2013-14/ (2014-15)	Recovery of amount against additional consumption due to excess wear rate	Suratgarh	708.830	124.249	41.649	82.600	364294.00	114.330	1.58	26.890	8.999	17.891	70887.80	1268254
		Kota	562.645	126.019	51.985	74.034	423064.00	122.877	5.45	58.987	24.168	34.819	70650.60	2459983
		Chhabra	161.419	167.220	86.965	80.245	445386.00	195.280	37.98	70.496	36.797	33.699	70887.80	2388848
TN 108/13 1097, 1132-2013-14, 270, 290, 1941-2014-15/ (2015-16)	Recovery of 1.25 times amount against additional consumption due to excess wear rate	Suratgarh	1949.340	134.302	55.520	78.782	445063.60	124.750	6.56	230.325	95.284	135.041	77632.20	13104412
		Kota	1168.600	116.808	48.298	68.510	357607.00	135.058	8.96	216.793	89.650	127.143	77030.50	12242361
		Chhabra	691.793	116.808	48.298	68.510	357607.00	135.058	8.96	128.338	53.071	75.267	77334.60	7275929
		Chhabra	12.800	12.800	NA			195.280		5.216	2.907	2.309	77334.60	223207
Grand total			8491.987											62704164

Column no. 10 = $\frac{(\text{Wear rate i.e. column 9}) - 110 \text{ gram per MT}}{10^6} \times \text{Quantity coal pulverised in test mill i.e. Column 8}$

Column no. 11 = $\frac{\text{Excess worn out ball i.e. Column 10}}{\text{Total worn out balls in the test mill i.e. Column 6}} \times \text{Quantity supplied against PO i.e. Column 4}$

Column no. 13 = Column 11 – Column 12

Column no. 15 = Column 13 X Column 14 (considering condition mentioned in column 2)

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