CHAPTER – VI

GOVERNMENT COMMERCIAL AND TRADING ACTIVITIES

6.1 Overview of Government companies and Statutory corporation

Introduction

6.1.1 As on 31 March 2008, there were eight Government companies and one Statutory corporation (all working) under the control of the State Government as against seven Government companies and one Statutory corporation as on 31 March 2007. The accounts of Government companies (as defined in Section 617 of Companies Act, 1956) are audited by the Statutory Auditors appointed by the Comptroller and Auditor General of India (CAG) as per the provisions of Section 619(2) of the Companies Act, 1956. These accounts are also subject to supplementary audit by CAG as per the provisions of Section 619 of the Companies Act, 1956. The CAG is the sole auditor of Jharkhand State Electricity Board under Rule 14 of the Electricity Supply (Annual Accounts) Rules, 1985 read with Section 172(a) and 185(2)(d) of the Electricity Act, 2003 and of the Jharkhand State Electricity Regulatory Commission under Section 104(2) of the Electricity Act, 2003.

Working Public Sector Undertakings (PSUs)

Investment in working PSUs

6.1.2 As on 31 March 2008, the total investment in nine PSUs (eight Government companies and one Statutory corporation) was Rs 3673.29 crore[1] (equity: Rs 122.40 crore and long term loans: Rs 3550.89 crore) against the total investment of Rs 2550.95 crore (equity: Rs 13.30 crore and long term loans: Rs 2537.65 crore) in eight PSUs (seven Government companies and one Statutory corporation) as on 31 March 2007. The analysis of investment in working PSUs is given in the following paragraphs:

Sector-wise investment in the working Government companies and Statutory corporation

The investment (equity including share application money and long term loans) of Rs 3673.29 crore and Rs 2550.95 crore in various sectors for the years ended 31 March 2008 and 31 March 2007 respectively are indicated in the bar chart below:

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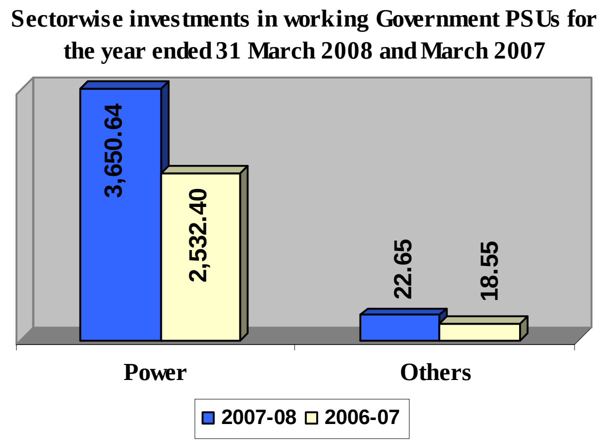
[1] Figures as per Finance accounts are yet to be finalised.

Chart-6.1



(Not to scale)

Working Government companies

6.1.3 The total investment in seven and eight working Government companies at the end of March 2007 and March 2008 respectively was as follows:

(Rupees in crore)

Year	Number of Government companies	Investment in working companies			
		Equity	Share application money	Loan	Total
2006-07	7	10.80	2.50	5.25	18.55
2007-08	8	119.80	2.60	671.15	793.55

The summarised position of Government investment in these companies in the form of equity and loans is detailed in ***Appendix 6.1***.

The investment in the current year has increased over the previous year due to inclusion of Tenughat Vidyut Nigam Limited.

As on 31 March 2008, the total investment in working Government companies comprised 15 *per cent* of equity and 85 *per cent* of loans as compared to 72 *per cent* and 28 *per cent* respectively as on 31 March 2007.

Working Statutory corporation

6.1.4 The total investment in Jharkhand State Electricity Board as at the end of March 2007 and March 2008 were not available due to non-apportionment of assets and liabilities between the Bihar State Electricity Board and the Jharkhand State Electricity Board. The loans outstanding as on 31 March 2008 stood at Rs 2879.74 crore (State Government: Rs 1457.95 crore, Central Government: Rs 1356.25 crore, Others: Rs 65.54 crore) as against Rs 2532.40 crore (State Government: Rs 1110.61 crore, Central Government: Rs 1356.25 crore, Others: Rs 65.54 crore) as on 31 March 2007. The long term loans given by the Jharkhand Government during 2006-07 and 2007-08 were, however, Rs 52 crore and Rs 347.34 crore respectively.

The summarised statement of Government investment in the working Statutory corporation is detailed in ***Appendix 6.1***.

Budgetary outgo, grants/subsidies, guarantees, waiver of dues and conversion of loans into equity

6.1.5 The details regarding budgetary outgo, grants/subsidies, guarantees issued, waiver of dues and conversion of loans into equity by the State Government in respect of working Government companies, the Statutory corporation and the Autonomous Body are given in ***Appendix 6.1 and 6.3***.

The budgetary outgo in the form of equity capital and loans and grants/subsidies from the State Government to working Government companies and Statutory corporation for 2006-07 and 2007-08 are given below:

(Rupees in crore)

	2006-2007				2007-08			
	Companies		Corporation		Companies		Corporation	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Equity	2	2.50	-	Nil	2	4.10	-	Nil
Loans	1	8.00	1	52.00	-	Nil	1	347.34
Grant/subsidy	-	Nil	1	250.00	-	-	1	921.14
Total outgo	**3**[2]	**10.50**	**1**[2]	**302.00**	**2**[2]	**4.10**	**1**[2]	**1268.48**

The Government did not give any guarantee during 2007-08.

Finalisation of accounts by working PSUs

6.1.6 The accounts of the Government companies for every financial year are required to be finalised within six months of the end of the financial year under sections 166, 210, 230 and 619 of the Companies Act, 1956 read with Section 19 of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971. They are also required to be laid before the Legislature within nine months of the end of the relevant financial year. In the case of Statutory corporation, the accounts are finalised, audited and presented to the Legislature as per the provisions of Section 185(2)(d) of the Electricity Act, 2003.

Out of nine PSUs, none of the PSUs finalised its accounts for the year 2007-08 upto 30 September 2008, as can be seen from ***Appendix 6.2***. During the period from October 2007 to September 2008, three[3] working Government companies finalised their accounts for the previous years. The accounts of eight Government companies and one working Statutory corporation were in arrears for the periods ranging from one to 14 years as on 30 September 2008 as detailed below:

Sl. No.	No. of working PSUs		Years from which accounts are in arrears	Number of years for which accounts are in arrears	Reference to serial no. of Appendix 6.2	
	Government companies	Statutory corporation			Government companies	Statutory corporation
1	1	-	1994-95 to 2007-08	14	A8	-
2	-	1	2002-03 to 2007-08	6	-	B1

[2] Compiled from the details furnished by companies/corporation.

[3] Jharkhand Police Housing Corporation Limited, Jharkhand State Forest Development Corporation Limited and Jharkhand Industrial Infrastructure Development Corporation Limited.

Sl. No.	No. of working PSUs		Years from which accounts are in arrears	Number of years for which accounts are in arrears	Reference to serial no. of Appendix 6.2	
	Government companies	Statutory corporation			Government companies	Statutory corporation
3	3	-	2003-04 to 2007-08	5	A3, A5 & A7	-
4	1	-	2005-06 to 2007-08	3	A1	-
5	2	-	2006-07 to 2007-08	2	A4 & A6	-
6	1	-	2007-08	1	A2	-

The State Government had invested Rs 3322.97 crore (equity: Rs 12.35 crore; loans: Rs 1238.53 crore and grants/subsidy: Rs 2072.09 crore) in nine working PSUs during the year for which accounts have not been finalised as detailed in ***Appendix 6.4***. In the absence of accounts and their subsequent audit, it cannot be ensured whether the investments and expenditure incurred have been properly accounted for and the purpose for which the amount was invested has been achieved or not and thus the Government's investment in such PSUs remain outside the scrutiny of the State Legislature. Further, 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 Companies Act, 1956.

The administrative departments need to oversee and ensure that the accounts are finalised and adopted by the PSUs within prescribed period. The concerned administrative departments were informed every quarter by the Audit regarding arrears in finalisation of accounts.

Financial position and working results of working PSUs

6.1.7 The summarised financial results of working PSUs (Government companies and Statutory corporation) as per their latest finalised accounts are given in ***Appendix 6.2***. According to the latest finalised accounts, three working Government companies earned aggregate profit of Rs 56.19 lakh and three working Government companies incurred loss of Rs 72.51 crore and the Statutory corporation incurred loss of Rs 49.45 crore. Out of the remaining two companies, while one company is under process of implementation and its expenditure is booked under pre-operative expenses, the other company was yet to finalise its accounts since its formation.

Working Government companies

Profit earning working companies and dividend

6.1.8 As per latest finalised accounts, three companies (Sl. No. 2, 3 and 6 of Appendix 6.2), which had finalised their accounts for 2006-07, 2002-03 and 2005-06 respectively earned a profit of Rs 11.50 lakh, Rs 19.92 lakh and Rs 24.77 lakh but did not declare any dividend.

Loss incurring working companies

6.1.9 Of the three loss incurring working Government companies, Tenughat Vidyut Nigam Limited had accumulated losses aggregating Rs 221.83 crore, which exceeded its paid up capital of Rs 100 crore.

Return on capital employed

6.1.10 As per the latest annual accounts finalised upto September 2008, the capital employed[4] and total return[5] thereon in seven[6] companies worked out to Rs 608.21 crore and Rs 73.71 lakh (0.12 *per cent*), as against the capital employed and total return thereon of Rs 20.62 crore and Rs 5.85 crore (28.37 *per cent*) in five companies in previous year. Similarly, the capital employed and total return thereon in case of Statutory corporation[7] as per the latest finalised annual accounts worked out to Rs 4380.81 crore and Rs 235.99 crore (5.39 *per cent*). The details of capital employed and total return on capital employed in case of the Government companies and Statutory corporation are given in ***Appendix 6.2***.

Jharkhand State Electricity Regulatory Commission

6.1.11 The Jharkhand State Electricity Regulatory Commission (Commission) has been constituted by the Government of Jharkhand under Section 82 of the Electricity Act, 2003. The Commission became operational with effect from 24 April 2003. The Commission is yet to finalise its accounts since inception.

Status of placement of Separate Audit Report of Statutory corporation in Legislature

6.1.12 The Separate Audit Report (SAR) on the accounts of Jharkhand State Electricity Board for the year 2001-02 was issued to the Board in November 2007 and no effective action was taken to place the SAR in the Legislature.

Disinvestment, privatization and restructuring of Public Sector Undertakings

6.1.13 During the year 2007-08, there was no case of disinvestment and privatisation of Government companies and Statutory corporation.

Results of audit of accounts of PSUs

6.1.14 During October 2007 to September 2008, the accounts of three companies were selected for audit. Some of the major errors and omissions noticed in these companies/corporation are mentioned in the succeeding paragraphs.

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[4] Capital employed represents net fixed assets (including Capital work in progress) plus working capital (i.e. Current Assets, Loans & Advances less Current Liabilities excluding provision for pension and gratuity).

[5] Total return on Capital Employed represents Net Surplus/deficit plus interest charged in Profit & Loss Accounts (less interest capitalised).

[6] Out of eight companies, one company has not finalised its accounts since incorporation.

[7] Statutory corporation finalised its accounts only for the first year.

Comments offered by the Statutory auditors on the accounts of working Government companies

6.1.15 Jharkhand Police Housing Corporation Limited for the year 2006-07

(i) Tax on dividend declared for the financial year 2002-03 (assessment year 2003-04) amounting to Rs 2.48 lakh and for financial year 2003-04 (assessment year 2004-05) amounting to Rs 2.56 lakh has not yet been deposited with the appropriate authority, as required under Section 115-O of the Income Tax Act, 1961.

(ii) Dividend of Rs 19.80 lakh and Rs 20 lakh payable for the financial year 2002-03 and 2003-04 respectively has not yet been paid, nor has it been transferred to a special bank account named as 'Unpaid Dividend Account' with any scheduled bank, as required under Section 205 A of the Companies Act, 1956.

Recoveries at the instance of audit

6.1.16 Test check of records of PSUs conducted during 2007-08 disclosed wrong fixation of tariffs/non-levy/short-levy of tariff/short realisation of revenue or other observations aggregating Rs 344.34 lakh in 20 cases.

The PSUs accepted the observations pointed out by Audit in five cases and a sum of Rs 91.69 lakh relating to one case was recovered.

Internal audit/Internal control

6.1.17 The Statutory Auditors (Chartered Accountants) are required to furnish a detailed report upon various aspects including internal control/internal audit systems in the companies audited in accordance with the directions issued to them by the CAG under 619(3)(a) of the Companies Act, 1956 and to identify areas which need improvement.

An illustrative resume of major recommendations/comments made by the Statutory Auditors on possible improvements in the internal control system/internal audit in respect of State Government companies are indicated in the table below:

Nature of recommendations/ comments made by the Statutory Auditors	Number of companies where recommendations/comments were made	Reference to serial number of Appendix 6.2
Lack of internal audit	3	A-2, A-4 & A-5
Internal audit not commensurate with the size and nature of business	1	A-6
Lack of proper system of internal audit	1	A-1

Position of discussion of reviews and paragraphs by the Committee on Public Undertakings (COPU)

6.1.18 The position of discussion of reviews and paragraphs by the Committee on Public Undertakings as on 30 September 2008 was as under:

Period of Audit Report	Number of Reviews and Paragraphs			
	Appeared in the Audit Report		Discussed by COPU	
	Reviews	Paragraphs	Reviews	Paragraphs
2002-03	-	19[8]	-	2
2003-04	-	2	-	2
2004-05	1	2	1	1
2005-06	1	3	-	-
2006-07	1	6	-	-
Total	**3**	**32**	**1**	**5**

During 2007-08, the COPU held four meetings and discussed one review and five paragraphs.

[8] Including 18 paragraphs relating to Jharkhand portion of undivided Bihar for the period from 1993-94 to 2001-02 which appeared in Audit Report (Commercial) – Government of Bihar.

PERFORMANCE REVIEW RELATING TO STATUTORY CORPORATION

6.2 Implementation of Accelerated Power Development and Reform Programme by Jharkhand State Electricity Board

Highlights

Instead of reduction of Aggregate Technical and Commercial Loss (AT&C Loss) by five *per cent* per annum, as directed by JSERC, the reduction was only four *per cent* during 2003-07.

[Paragraph 6.2.24]

Contrary to the objective of improving quality and reliability of power, the situation remained unsatisfactory as was evident from increased feeder trippings, duration of outages and failure rate of distribution transformers (DTrs), which was much higher than the norm.

[Paragraphs 6.2.25, 6.2.26 and 6.2.27]

The percentage of metering of service connections ranged between 32 and 77 in March 2008 against the targeted 100 *per cent* in June 2005.

[Paragraph 6.2.30]

The expenditure of Rs 52.17 crore, incurred on installation of meters in feeders and DTrs and collection of data, was rendered wasteful as no analysis of the data generated was undertaken.

[Paragraph 6.2.32]

The Board failed to eliminate the gap between Average Revenue Realisation (ARR) and Average Cost of Supply (ACS).

[Paragraph 6.2.33]

Funds amounting to Rs 40.29 crore were diverted for unauthorised purposes.

[Paragraph 6.2.16]

Delays in finalisation and award of tender, execution of work not provided in the DPR, non-identification of location for power sub stations, non-sorting out of issues with the contractor leading to arbitration and non issue of detailed work orders for Rs 77.17 crore indicated tardy implementation of APDRP projects. The ineffective monitoring, coupled with tardy implementation resulted in non-completion of test checked projects even after more than two years of completion schedule.

[Paragraphs 6.2.7, 6.2.8, 6.2.14, 6.2.15, 6.2.17 and 6.2.18]

Introduction

6.2.1 Due to the inability of State power utilities to systematically fund essential projects/schemes relating to upgradation of sub-transmission and distribution system and renovation and modernisation of old power plants, developmental activities in the power sector had not taken place in an organised and comprehensive manner, resulting in shortages, poor quality of supply and frequent interruptions and escalation of commercial losses. To address these issues, the Government of India (GOI) launched (February 2001) the Accelerated Power Development Programme (APDP) to finance projects relating to Renovation and Modernisation of old power plants and upgradation and strengthening of sub-transmission and distribution network. For quick turnaround of the power sector, GOI decided to restructure the concept of APDP from merely an investment window to also a mechanism for supporting power sector reforms in the State linked to the fulfillment of performance criteria by way of benchmarks. To "incentivise" the reform process, it was proposed to reward the actual improvement in the performance of the utilities by way of reduction in commercial losses and increased revenue realisation. Accordingly, APDP was renamed (March 2003) as "Accelerated Power Development and Reform Programme" (APDRP).

The major benefits envisaged in APDRP were to:

- reduce Aggregate Technical and Commercial (AT&C[9]) losses by nine *per cent* per annum in project towns/areas,
- improve revenue realisation and improve reliable and quality power supply by reducing outages and interruptions.

To achieve these goals, GOI was to provide funds for strengthening and upgradation of sub-transmission networks and also give to State Government as grant, an incentive upto 50 *per cent* of the actual total loss reduction by SEBs/Utilities. For implementation of reform programme in Jharkhand, a Memorandum of Understanding (MOU) was entered (April 2001) into between GOI and Government of Jharkhand (GOJ). The main activities agreed upon in the MOU were 100 *per cent* metering of feeders/consumers, implementation of energy accounting and audit, reduction of transmission and distribution (T&D) losses to 18 *per cent* and achievement of breakeven in distribution operations. Up to March 2008, the Board incurred an expenditure of Rs 209.75 crore in all the eight circles taken up for implementation under the scheme.

The Secretary, Department of Energy, GOJ is in charge for operation, release of funds and monitoring of implementation of the programme in the State. In Jharkhand State Electricity Board (Board), the Chief Engineer (APDRP) supervises all the activities relating to APDRP. At the circle level, the Superintending Engineer of Electric Supply Circle (ESC) acts as Chief Executive Officer to monitor the implementation of the projects under the programme in the respective circles.

Scope of audit

6.2.2 The performance review of APDRP conducted during March to June 2008 evaluates the implementation of the scheme during the period from 2003-08. The records of the Energy Department, GOJ, Board Headquarters and four[10] out of eight ESCs, where projects were being implemented, were

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[9] Aggregate Technical and Commercial Loss (AT&C Loss) is considered the clearest measure of the overall efficiency of power distribution as it measures technical and commercial losses. By contrast, Transmission and Distribution Loss (T&D Loss) does not capture losses on account of non-realisation of payments.

[10] Dhanbad, Dumka, Hazaribag and Jamshedpur.

test checked. These four circles were selected on simple random basis. As against the total sanctioned amount of Rs 444.83 crore for various schemes in all the eight circles of the Board, an amount of Rs 265.05 crore was sanctioned and an amount of Rs 110.17 crore was incurred in the four circles.

Audit objectives

6.2.3 The performance audit of APDRP was carried out to assess whether:

- the intended objectives of APDRP *viz.*, reduction in AT&C losses, 100 *per cent* system and consumer metering, improvement in quality and reliability of power supply, energy accounting and audit and reduction in the gap between average revenue realisation (ARR) and average cost of supply (ACS) were effectively achieved;
- there was adequate and effective control over the release and utilisation of APDRP funds;
- the reforms sought to be achieved through the Memorandum of Understanding and Memorandum of Agreement (MOA) had been effectively implemented;
- the process for planning, implementation of APDRP was adequate and effective and the projects were executed economically and efficiently; and
- there was a system of adequate monitoring to evaluate the programme and take necessary corrective steps.

Audit criteria

6.2.4 The criteria used in audit were:

- Guidelines for implementation of APDRP issued by the MoP;
- Targets and benchmarks/conditions laid in MOU and MOA with the Ministry of Power (MoP), GOI;
- Electricity Act, 2003;
- Detailed Project Reports (DPRs) of APDRP; and
- Monitoring mechanism envisaged in the guidelines and MOA.

Audit methodology

6.2.5 The following mix of audit methodology was adopted:

- review of instructions/guidelines issued by MoP/State Government from time to time for implementation of APDRP;
- review of agenda papers and minutes of the meetings of the Board;
- examination of DPRs/cost estimates of the project/scheme;
- review of details of funds received and utilised;
- review of records relating to procurement of material/equipment, implementation of projects and scrutiny of monthly reports on benchmark/milestone of MOU/MOA;

- review of the monthly progress reports on physical and financial performance; and
- issue of audit enquiries and interaction with the Management.

Audit findings

6.2.6 The audit findings were reported (July 2008) to the Government/Board and discussed in the meeting of the Audit Review Committee for Public Sector Enterprises (ARCPSE) held on 21 October 2008, in which the Government was represented by the Secretary, Energy Department and the Board by its Chairman. The review was finalised after considering the views of the Government/Board. The results of the performance audit are discussed in the succeeding paragraphs.

Project planning

6.2.7 Initially, GOI approved (September/November 2002) eight APDRP projects for implementation in 11 towns of three[11] ESCs and five towns in other five[12] ESCs at a total cost of Rs 444.83 crore. Though projects were approved for 11 towns under three ESCs, the Board implemented the projects only in the three towns of these ESCs. The Board, thus, started implementation of the project in eight towns, leaving out other eight towns in three ESCs. The Board assigned the work of implementation of the projects to various firms on turnkey basis between January and May 2005. The Board prepared project reports for three ESCs and it prepared snapshots for the remaining projects.

Subsequently, the Board submitted (December 2005 and May 2007) ten new project reports to GOI for execution of APDRP work in seven new towns and additional work in three towns where the projects were already going on. GOI, however, approved (December 2006) four new projects in Basukinath, Chaibasa, Giridih and Saraikela-Kharsawan and stated that the implementation of the approved projects would have to be taken up only after approval of the restructured APDRP under XI Plan. No fund was received from GOI in 2006-08 for these four approved projects.

Audit observed that:

- As the Board had prepared DPRs for only three projects, there were delays in implementation of the scheme.
- Though GOI approved the projects in September/November 2002, the Board invited tender for implementation of the projects on turnkey basis in October 2003, *i.e.* after a year of GOI's approval.
- The Board took one more year for the preparation of cost data (November 2004) for turnkey contracts, since the Board did not have any cost data for evaluation of turnkey contracts.

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[11] Dumka ESC – Dumka, Jamtara, Sahebganj and Pakur; Hazaribag ESC – Hazaribag, Koderma, Chatra and Ramgarh; Ranchi ESC – Ranchi, Khunti and Netarhat.

[12] Daltonganj ESC – Daltonganj; Deoghar ESC – Deoghar; Dhanbad ESC – Dhanbad; Jamshedpur ESC – Jamshedpur; Loyabad ESC– Katras.

Delay of 25 months to award work after GOI's approval led to time overrun of six years and consequent cost overrun

- After evaluation, the Board awarded the work to various contractors during January to May 2005. Thus, the Board took 25 months to award the works after GOI's approval leading to cost overrun as discussed in succeeding ***paragraph 6.2.14.***

The Board stated (September 2008) that the turnkey was a completely new concept and also admitted that no cost data for estimating the work on turnkey basis was available.

Execution of works not provided in the DPR

6.2.8 Optimum benefit from investment in any project is best derived if the execution of the project is undertaken after conducting proper survey of the ground realities in the field and collection of inputs for conducting cost benefit analysis.

Scrutiny of records revealed that there were cases of deviations/variations in the execution of projects indicating that the DPRs were deficient in respect of three ESCs keeping in view the requirements of the field units. These are discussed as follows:

- As per the DPR of Hazaribag town, one new power sub station (PSS) was to be commissioned at a cost of Rs 1.25 crore, but the work order was placed for two new PSSs at Kallu chowk and Zebra at a cost of Rs 5.17 crore.
- The work of renovation of existing distribution transformers (DTrs) was not included in the DPR of Hazaribag ESC. But the renovation work of 186 DTrs at a cost of Rs 5.37 crore was included under APDRP work to be executed.

The Board stated (September 2008) that due to increase in load growth, the additional work had to be carried out. This proves the fact that the DPRs prepared were deficient.

Project funding

6.2.9 As per funding mechanism of the programme, GOI provides 25 *per cent* of the project cost as grant and another 25 *per cent* as loan (9 to 12.5 *per cent*[13]) to the State Government. The State Government in turn releases it to SEBs/Utilities. The balance 50 *per cent* of the project cost, as counterpart fund (eight *per cent*[14]), is to be arranged by the SEBs/Utilities from Power Finance Corporation (PFC)/Rural Electric Corporation (REC) or any other financial institution. The State Government was to release the fund to the Board within a week from the date of its receipt and the latter was to open a separate bank account for fund received under APDRP. The Board received Rs 86.42 crore, Rs 89.42 crore and Rs 65.54 crore towards grant, loan from GOI and loan from PFC respectively, for implementation of APDRP during 2002-03 to 2007-08 as shown below:

[13] Rate at which GOI released loan to GOJ.
[14] Rate at which PFC released loan to the Board.

(Rupees in crore)

Year	Fund released by GOI		Fund released by PFC (counterpart fund)	Total	Cumulative fund release	Cumulative expenditure	Percentage of expenditure incurred to total funds received
	Grant	Loan					
2002-03	6.00	6.00	-	12.00	12.00	12.00	100
2003-04	12.99	15.98	47.00	75.97	87.97	12.00	13.64
2004-05	18.30	18.30	18.54	55.14	143.11	77.60	54.22
2005-06	49.13	49.14	-	98.27	241.38	132.89	55.05
2006-07	No fund was received from Government under new dispensation[15]			-	241.38	205.71	85.22
2007-08	-do-			-	241.38	227.84	94.39
Total	**86.42**	**89.42**	**65.54**	**241.38**			

(Source: Data furnished by the Board)

Release and utilisation of APDRP funds

Poor drawal of funds

6.2.10 Against the eight projects approved, the Board was to receive Rs 222.42 crore towards grant and loan from GOI and the balance cost of Rs 222.41 crore from PFC/REC as counterpart funding. An analysis of the drawal of funds revealed that:

- The Board drew 19, 20 and 15 *per cent* of the total project cost (Rs 444.83 crore) against 25, 25 and 50 *per cent* towards grant, loan and counterpart fund respectively upto March 2008 as stipulated in APDRP scheme.
- The Board was to draw Rs 175.84 crore towards counterpart fund *i.e.,* sum of grant and loan received. The Board, however, drew only Rs 65.54 crore. Thus, the required sum of Rs 110.30 crore as counterpart fund could not be drawn by the Board.
- GOI released Rs 175.84 crore towards grant and loan without linkage to each project. The Board also did not correlate the drawal of fund from GOI to each project.
- GOJ released Rs 1.50 crore as loan to the Board, though it was received as grant from GOI.

The Board stated (September 2008) that the funds were drawn as per actual requirements and were following the system of claiming reimbursement from PFC. The fact, however, remained that the drawal of funds were not in line with the guidelines of APDRP scheme.

Delay in release of fund

6.2.11 As per the guidelines of APDRP, the State Government was to release the APDRP fund received from GOI within a week of its receipt to the Board and its failure to release it within the specified period was to be treated as diversion of fund. On delayed release of fund, the State Government was to pay a penalty at the rate of 10 *per cent* per annum to GOI. Though there were

[15] Under new dispensation, releasing of loan by GOI was discontinued from November 2005.

delays in release of fund to the Board, GOJ had not paid any penalty to GOI on this account so far.

Audit analysis of receipt and release of funds revealed that:

- GOJ received Rs 21.97[16] crore in March 2001 under APDP from GOI but released it to the Board only in March 2004.
- The GOJ/Board had to pay interest of Rs 4.12[17] crore on the loan of Rs 10.99 crore for the period April 2001 to March 2004 besides non utilisation of Rs 21.97 crore released by GOI for implementation of APDP projects.

The Board admitted (September 2008) the delay and stated that it was due to administrative reasons.

Diversion of funds

6.2.12 As per the guidelines of APDRP, the funds earmarked for APDRP were not to be utilised for any other purpose. Audit scrutiny, however, revealed that Rs 6.34 crore was utilised for procurement of materials and working capital during 2003-07.

The Board admitted (September 2008) that the funds were diverted to other projects of similar objective due to urgency. The fact, however, remains that the diversion of funds of APDRP scheme is not permissible.

Release of loan at higher rate of interest by GOJ

6.2.13 During 2000-05, GOI released Rs 38.79[18] crore towards loan for APDP/APDRP projects to GOJ at the rate of interest (ROI) ranging from 10.50 to 12.50 *per cent*. GOJ, however, released the fund to the Board at 13 *per cent* for the period ranging from 38 to 60 months. As a result, the Board incurred an additional interest liability of Rs 1.77 crore upto 31 March 2008. The Board was yet (September 2008) to make payment towards interest.

Project implementation

Time and cost overrun

6.2.14 Against sanction of eight projects by GOI, partial work orders were issued for six projects[19] whose sanctioned cost was Rs 388.56 crore. Tenders are yet to be finalised in respect of two projects[20]. As discussed in **paragraph 6.2.7** ***infra***, due to absence of proper planning, there was a time overrun and cost overrun in respect of four selected projects as detailed below:

- In respect of Dhanbad and Jamshedpur, GOI sanctioned (November 2002) Rs 104.76 crore for execution of works; but the works were awarded (May 2005) at a total cost of Rs 178.64 crore. The time overrun in awarding

[16] Rs 10.985 crore (Loan) + Rs 10.985 crore (Grant).
[17] Rs 10.99 crore x 12.5 *per cent* x 3 years.
[18] Being the various loan amount of Rs 6.00 crore, Rs 15.98 crore and Rs 16.81 crore drawn during March 2003 to February 2005.
[19] Deoghar, Dhanbad, Dumka, Hazaribag, Jamshedpur and Ranchi.
[20] Daltonganj and Katras.

work resulted in a cost overrun of Rs 73.88 crore. To keep the awarded works within the sanctioned limit, the reduced quantum of work was awarded (January 2005) for Rs 101.47 crore. Besides, the detailed work orders for the balance quantum of work valuing Rs 77.17 crore are yet to be issued which may result in further cost overrun.

- In case of Dumka and Hazaribagh, GOI approved (September 2002) DPRs for implementation of APDRP in the entire supply circles (four towns each) at a cost of Rs 160.29 crore. The Board, however, implemented the programme only in two towns (one town in each circle) at a cost of Rs 37.29 crore. The balance works valuing Rs 123.00 crore are yet to be awarded leading to a time overrun of six years and consequent cost overrun.

The Board stated (September 2008) that there was a delay in preparation of estimates and consequently there was a delay in issue of tender. Besides, there was poor response against the tender notice. The fact, however, remained that there was a delay in preparing estimates and finalisation of tender.

Tardy progress of execution of projects

Only 44 to 66 *per cent* of erection works were complete against 90 to 96 *per cent* of materials supplied in two project towns

6.2.15 The Board awarded (January/May 2005) projects of Rs 221.00[21] crore in the four test checked project towns. Audit noticed that:

- The Board issued detailed work orders for only Rs 143.83 crore.
- It did not issue detailed work orders to contractors for portion of the works relating to Dhanbad and Jamshedpur costing Rs 77.17 crore (34.92 *per cent*).

The scheduled completion period for all works including supply and erection was only eight months. But till date, even after more than three years of award of the works, no work had been fully completed and handed over to the Board as detailed below:

Project towns	Month of award of work	Schedule for completion	Delay in months	Supply portion			Erection portion		
				Total value	Progress achieved		Total value	Progress achieved	
				Rupees in crore	Rupees in crore	Percentage	Rupees in crore	Rupees in crore	Percentage
Dhanbad	May 2005	January 2006	26	45.08	40.76	90	5.71	3.75	66
Dumka	January 2005	September 2005	30	10.16	9.80	96	1.70	0.74	44
Hazaribagh	January 2005	September 2005	30	23.28	22.67	97	2.15	2.23[22]	--
Jamshedpur and Ghatsila	May 2005	January 2006	26	48.90	27.25	56	6.85	2.97	43
Total				**127.42**	**100.48**		**16.41**	**9.69**	

(Source: Data furnished by the Board)

Audit noticed (June 2008) that:

- Though 90 and 96 *per cent* of required materials had been supplied in Dhanbad and Dumka, only 66 and 44 *per cent* respectively of erection

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21 Includes supplementary work orders for Rs 5.07 crore.
22 Actual execution of work was more than the items of scheduled work and the work order value is yet to be revised.

works were complete.

- The main reasons for delay in completion of works were (i) requirement of more time for preparation of detailed BOQ after carrying out detailed line survey, (ii) delay in finalisation of drawings by the consultants and (iii) allowing periodical shut down with minimum inconvenience to consumers for line stringing work.
- In Jamshedpur, one of the contractors went in for arbitration and a major part of the work assigned was yet to be completed (discussed under **paragraph 6.2.18**).

The Board stated (September 2008) that as the GOI did not approve the increased cost for these towns, the work could be awarded to the pre revised cost. The fact remained that the work in none of the four towns was completed till date.

Execution of items outside the scope of APDRP

The Board took up items of work outside the scope of APDRP in contravention of APDRP guidelines

6.2.16 As per APDRP guidelines, the Board could spend APDRP funds only for the approved projects. In contravention of the guidelines, the Board took up items of work which were outside the scope of APDRP as below:

- The Board undertook (2002-06) non-APDRP projects *viz.*, underground cable system and overhead conductor system in Ranchi town at a cost of Rs 40.29 crore out of fund received from GOI.

The Board stated (September 2008) that the expenditure for underground cable system and overhead conductor system was not booked under APDRP scheme. The reply is contrary to the fact that the Board had charged the expenditure under APDRP scheme only.

Non-identification of location for PSSs

The project was delayed due to delay in identifying the location of PSS

6.2.17 The Board issued (May 2005) two work orders for supply, erection and commissioning of two new 33/11 KV Power Sub Stations (PSSs) with 33 KV incoming line in Hazaribagh on turnkey basis to M. N. Electricals at a cost of Rs 5.17 crore. The contractor completed (August 2007) the work of one PSS and the other one was yet to be completed (June 2008) although the schedule for completion was only eight months.

Audit observed that:

- The Board failed (May 2005) to allot the land to the contractor for starting the work.
- The contractor submitted (August 2005) the detailed despatch schedule of equipments/materials with the condition to provide road permits and approve drawings in time.
- Due to public agitation on commissioning of PSSs on the locations proposed, the Board could not finalise the location immediately after award of work.
- The Board, however, handed over the land for the two PSSs in March 2006 and February 2007, nine and twenty months after the award of work.

- Before handing over the land, the Board paid (January 2006) Rs 1.08 crore to the contractor for the materials supplied.

Thus, due to delay in identifying the location of PSS, the project was delayed and one PSS was yet to be completed.

Delay in granting extension of time

The Board failed to avoid stoppage of work till March 2008 due to non adoption of uniform policy in granting extensions

6.2.18 The Board issued (January 2005) two work orders for sub-transmission and distribution improvement project in Jamshedpur town for a total cost of Rs 28.17 crore on Ramjee Power Construction Limited (RPCL). As per the work orders, the works were to be completed within eight months from the date of work order.

Audit noticed that:

- There was delay in approval of drawings, carrying out survey, issue of road permits, non preparation of bill of quantity (BOQ) taking into account the actual survey carried out *etc.*, and hence RPCL requested (August 2005) for extension of the completion period.
- The CEO of the Supply circle, however, issued (March 2006) a termination notice to RPCL stating that the firm failed to procure the required materials and the progress achieved was very poor compared to the total work to be done.
- The firm represented (March 2006) to Board for extension of time for completion of work due to delay in approval of drawings *etc.*, by the Board.
- The Board, however, granted (November 2006) extension of time upto July 2007 with a condition to deduct liquidated damages (LD) for delay in completion. The firm requested (November 2006) to waive the levy of LD.
- Subsequently, the firm went in (December 2006) for arbitration. The arbitrator delivered (February 2008) the final award allowing extension of time upto March 2009 without levy of penalty and with price variation on material and erection during extended schedule.

Audit further observed that:

- The Board took eight months in taking decision on granting extension of time.
- The Board granted extension of time without LD in respect of works carried out in other places when there was a delay on the part of the Board in approval of drawings, issue of road permits, allotment of land and approval of revised BOQ.
- As the Board did not communicate its decision to the contractor for waiver of the LD clause, the contractor resorted to arbitration proceedings.
- Due to non adoption of uniform policy in granting extension, the Board failed to avoid stoppage of work till March 2008, besides incurring price variation during the period of extension.
- As the major part of work is yet to be taken up, the additional financial

liability, on account of price variation, can be quantified only after the submission of price variation claims by RPCL.

The Board had not furnished any specific reply.

Non devolution of materials

The details of devolution of materials valuing Rs 59.13 lakh were not made available

6.2.19 The contractors executing works on turnkey basis had to deposit the materials retrieved on augmentation of transformers of higher capacity and reconductoring of lines. Audit scrutiny revealed (June 2008) that:

- In Dumka, Hazaribag and Ranchi towns, 259 DTrs of 200 KVA were installed in place of existing DTrs of 100 KVA but only 35 DTrs were devoluted. The details relating to devolution of removed 224 DTrs of 100 KVA valuing Rs 46.46[23] lakh, though called for, were not furnished to audit.
- In the case of reconductoring of lines, the contractors devolute the existing conductors of copper/ACSR[24]/AAAC[25] into stores. In test checked ESCs, against the reconductoring work undertaken for 353 ckm.[26] the contractors devoluted only 79 MT of aluminium/copper conductor scrap. The details relating to devolution of 20[27] MT of conductor scrap valuing Rs 12.67 lakh, though called for, were not furnished to audit.

Monitoring, evaluation and reporting

Non evaluation of projects

6.2.20 Evaluation of the APDRP projects by an independent agency was an integral part of the programme. As per the guidelines, projects which were at least 50 *per cent* complete were to be selected for evaluation. Though more than 50 *per cent* of the work in the test checked project towns was complete, no evaluation study was undertaken.

Monitoring by State Level Distribution Reform Committee (DRC)

Only three DRC meetings were held since its formation

6.2.21 The DRC, formed in January 2004, was to meet once in two months and review the progress of project implementation, compliance of MOU/MOA conditions and performance against benchmarks. Audit noticed that even after three years of its formation, only three meetings were held and no meeting was convened after January 2007. Thus, the prescribed monitoring was not being undertaken.

The Board stated (September 2008) that the meetings were held according to the availability of the members at a particular time. The fact, however, remained that no meeting was convened after January 2007 indicating absence of monitoring.

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23 Rs 20,739 (50 *per cent* value of 100 KVA DTrs as per the budgeted rate for 2004-05) x 224 DTrs.
24 Aluminium Conductor Steel Reinforced.
25 All Alloy Aluminium Conductor.
26 Circuit kilometer.
27 353 ckm. x 3 lines x 94 kg. = 99 MT; 99 MT – 79 MT = 20 MT.

Internal control

Work orders valuing Rs 77.17 crore were not issued even after more than three years of award of the works

6.2.22 Internal control is a process designed for providing reasonable assurance for efficiency and economy of operation, reliability of financial/management reporting, compliance with applicable laws, statutes and directives and safeguarding resources against any loss. A built in internal control system and strict adherence to the statute, codes and directives minimise the risk of errors and irregularities. Audit evaluation of the system in place in the Board revealed the following weaknesses:

- The Board failed to evolve a control mechanism so as to accord approval of drawings and issue of road permits for transportation of materials in time, to finalise the location for PSS before award of work and to coordinate with the contractor for carrying out survey in time. This resulted in time and cost overruns apart from failure to derive the intended benefits from the projects.
- The Board did not issue the detailed work order for execution of work costing Rs 77.17 crore in Dhanbad and Jamshedpur even after more than three years of award of the works.
- The Board failed to correlate the retrieved materials to the renovation/reconductoring work executed by the contractors.
- The internal audit wing of the Board did not audit the programme since its inception.

Non-Achievement of APDRP objectives

6.2.23 The successful implementation of the APDRP in the State depended upon the achievement of the following objectives for which physical and financial benchmarks were framed.

- Reduction in AT&C losses.
- Improving reliability/quality of power supply.
- Improving customer satisfaction.
- Increase in revenue.
- 100 *per cent* metering of all the consumers.
- Energy accounting and audit.

The shortfalls in achieving the intended objectives as noticed in audit are discussed in the succeeding paragraphs.

Failure to reduce Aggregate Technical and Commercial (AT&C) losses

6.2.24 While launching APDRP, it was envisaged that AT&C losses would be brought down from the existing level of about 60 *per cent* to around 15 *per cent* in five years in the urban areas and high density/consumption areas initially. This implied reduction of AT&C loss at the rate of nine *per cent* per annum for first five years. Further, Jharkhand State Electricity Regulatory Commission (JSERC) in its tariff order (December 2003) directed the Board to reduce its T&D loss by five *per cent* every year till the achievement of normative T&D loss. Though GOJ was receiving funds under the programme since March 2001, the Board started implementation of the programme only in early 2005.

Audit noticed that the AT&C losses of the Board for the period 2003-07[28] ranged between 53 and 49 *per cent*. The AT&C losses in respect of the test checked project towns since implementation (2005-06) of APDRP were as in ***Appendix 6.5***.

The test checked circles incurred AT&C loss of 177.06 MU in 2007-08 due to non achievement of targeted reduction of nine *per cent*

Audit examination (June 2008) revealed that:

- Delay of 45 to 49 months in implementation of the programme resulted in delay in achieving targeted reduction of nine *per cent* per annum.
- While there was reduction in AT&C loss in the project towns Dhanbad (11.93 *per cent*) and Dumka (3.14 *per cent*), the AT&C loss increased in Hazaribagh (7.15 *per cent*) and Jamshedpur (13.57 *per cent*) towns over the three year period of 2005-08.
- The AT&C loss had, in fact, increased by 2.79 *per cent* during 2005-08 in the test checked project towns as a whole.
- Due to non achievement of targeted reduction of nine *per cent* in each year, the test checked circles incurred AT&C loss of 177.06 MU in 2007-08.

Thus, the primary objective of APDRP of reducing AT&C loss by nine *per cent* per annum had not been achieved; in certain test checked circles the loss had actually increased.

The Board stated (September 2008) that AT&C losses pointed out were related to works under progress. The fact, however, remained that the Board failed to complete the project within the prescribed time schedule resulting in non achievement of targeted reduction in AT&C loss.

Reliability and quality of power supply

6.2.25 One of the envisaged benefits of APDRP was improved quality and reliability of power supply. The key performance parameters for measuring the quality and reliability of power supply were frequency of feeder trippings, duration of feeder outages, failure rate of distribution transformers (DTrs), number of consumer complaints and their disposal time. Audit scrutiny, however, revealed significant deficiencies as discussed in the succeeding paragraphs.

Feeder trippings and outages

6.2.26 MOP, GOI prescribed feeder outages to be less than one per feeder per month. The feeder trippings and outages in respect of the test checked project towns for the period 2005-06 to 2007-08 were as below:

[28] Figures for 2007-08 are under compilation.

Project towns	2005-06		2006-07		2007-08	
	Trippings per feeder per month	Average feeder outage duration in hours per month	Trippings per feeder per month	Average feeder outage duration in hours per month	Trippings per feeder per month	Average feeder outage duration in hours per month
Dhanbad	83	39	81	40	67	31
Dumka	17	23	47	23	46	23
Hazaribag	39	6	39	6	34	6
Jamshedpur and Ghatsila	55	12	59	19	52	14
Total	**194**		**226**		**199**	

(Source: Data furnished by the Board)

The number of feeder outages increased from 194 to 199 over the period 2005-06 to 2007-08, which was much higher than the prescribed norm

Audit examination revealed that:

- The actual outage was much higher than the prescribed norm of less than one per feeder per month in all the project towns.
- The number of feeder outages in 2007-08 was 199 against 194 in 2005-06 indicating imbalance in transformation and distribution system. The Board attributed this increase to non completion of APDRP projects and load growth.

High distribution transformer failure rate

The DTr failure rate increased over the period 2005-06 to 2007-08 despite implementation of the project

6.2.27 The distribution transformer (DTr) is a key component of a distribution network and its failure not only results in financial loss to the Board but also adversely affects consumer satisfaction due to interruption in supply. For higher reliability of power supply, DTr failure rate of less than 1.5 *per cent* per annum was indicated as benchmark by MOP. The percentage of DTr failure rate in respect of four project towns was as below:

Project towns	2005-06	2006-07	2007-08
Dhanbad	12.00	16.78	17.24
Dumka	7.56	14.87	20.81
Hazaribag	3.50	8.53	5.73
Jamshedpur and Ghatsila	5.23	7.99	8.70

(Source: Data furnished by the Board)

Audit examination revealed that:

- The four project towns had much higher DTr failure rate than the benchmark.
- Despite implementation of the project, DTr failure rate showed an increasing trend over the period 2005-06 to 2007-08 which adversely affected the reliable and quality power supply. The Board attributed this increase to load growth and non completion of APDRP projects.

Thus, non reduction of feeder outages and DTr failure rate led to failure to provide reliable and uninterrupted power supply in the project towns.

Non achievement of reduction in consumer complaints

There was lack of proper and systematic maintenance of basic records for registering consumer complaints

6.2.28 Each section office under the circles maintains a register to record the complaints received from consumers. The complaints are recorded in the register and necessary action is taken to redress the complaints. Reduction in the number of consumer complaints is one of the benchmarks for improved quality and reliability of power supply. This, coupled with effective redressal of complaints, is indication of better customer satisfaction. The number of consumer complaints registered in respect of three project towns was as below:

Project towns	2005-06	2006-07	2007-08
Dhanbad	9,558	9,651	9,223
Dumka	7,798	7,804	8,896
Jamshedpur and Ghatsila	27,803	25,795	25,048
Total	**45,159**	**43,250**	**43,167**

(Source: Data furnished by the Board)

Audit noticed (June 2008) that:

- The data furnished by the Board lack reliability since there was no proper and systematic maintenance of basic records for registering consumer complaints. During the test check conducted in Jamshedpur town, only one out of 11 section offices furnished relevant records. Ten offices did not provide complaint registers at all. The registers for previous years were not made available to audit.
- The reduction in the number of consumer complaints in Dhanbad and Jamshedpur towns from 2005-06 to 2007-08 was negligible while there was increase in consumer complaints in Dumka.
- The total number of consumer complaints in the three project towns was 43,167 in 2007-08 against 45,159 in 2005-06. There was very marginal reduction in the number of complaints despite implementation of APDRP in these towns for over three years.

Thus, despite implementation of APDRP, there was no significant reduction in consumer complaints, as the reliable and uninterrupted power supply was not ensured.

Collection efficiency

Collection efficiency of 100 *per cent* was not achieved in any of the project towns resulting into non reduction of AT&C loss

6.2.29 Collection efficiency represents the quantum of actual realisation of revenue against the revenue billed. On achievement of 100 *per cent* collection efficiency, the T&D loss of the Board would be equal to AT&C loss. Hence, attaining 100 *per* cent collection efficiency is also an important measure to reduce AT&C loss. The details of revenue billed and realised in respect of four project towns for the period 2005-06 to 2007-08 were as in ***Appendix 6.6***.

Audit scrutiny (June 2008) revealed that:

- The percentage of collection efficiency of the project towns was 57 to 94 in 2007-08 against 69 to 87 in 2005-06.
- Though transmission and distribution (T&D) loss of Hazaribag reduced from 36.35 (2005-06) to 32.44 (2007-08) *per cent*, the percentage of AT&C loss registered an increase of 7.15 *per cent* over the period due to poor collection efficiency.
- The reduction of collection efficiency by nine *per cent* in 2007-08 in Jamshedpur against 2005-06 also contributed to increase in AT&C loss.

Further, 100 *per cent* collection efficiency was not achieved in any of the project towns resulting in non reduction of AT&C loss to the extent of collection inefficiency.

Target of 100 per cent metering not achieved

Despite implementation of the projects the percentage of energy assessed to energy billed ranged between 16.67 to 22.93 in three projects towns

6.2.30 At the time of formulation of APDRP, implementation of 100 *per cent* consumer metering was envisaged to ensure proper energy accounting and auditing. Besides, as per section 55 of the Electricity Act, 2003, the Board was to provide meters to all service connections before June 2005. Audit scrutiny, however, revealed that the percentage of installation of consumer meters in respect of four test checked circles as on 31 March 2008 ranged from 32 to 77. Even after a lapse of three years of the target date, the Board failed to fulfill one of the significant milestones of MOU entered into between GOI and GOJ.

Despite the stated objective of 100 *per cent* consumer metering, many installations in project towns remained unmetered and the computation of energy consumed was made on “assessment” basis rather on actual basis.

The energy assessed and billed in respect of the project towns during 2005-08 were indicated in ***Appendix 6.7.***

Audit scrutiny revealed that:

- Even after implementation of the projects, 100 *per cent* metering was not achieved and the percentage of unmetered service connections ranged between 16.67 and 22.93 in the three project towns Dhanbad, Dumka and Hazaribagh.
- The basis of calculation of unmetered supply, was not made available. Thus, the correctness in estimation of unmetered energy could not be ensured in audit.
- The Board did not make any attempt to appoint any independent evaluators to assess the energy consumed by unmetered consumers.

The Board stated (September 2008) that it proposed to provide meters in all service connections only in the scheme of XI Plan.

Energy accounting and audit

6.2.31 A comprehensive energy accounting and audit would enable quantification of losses in different segments of the system and their segregation into commercial and technical losses.

- Energy accounting involves preparation of accounts of the energy flow to various segments and various categories of consumers and how it has been consumed out of the total available quantum over a specified time period.
- Energy audit involves analysis of energy accounting data in a meaningful manner to evolve measures to introduce checks and balances in the system to reduce leakages and losses and also to improve technical performance.

To achieve effective energy accounting and audit, it is imperative that meters are installed at all levels *i.e.,* feeders, DTrs and consumer premises; meter readings are taken regularly and reconciled; and proper consumer indexing is done through GIS mapping and linked to the billing system so that loss pockets are identified and corrective measures taken. Energy accounting is not a one time exercise but is to be done on a continuous basis.

Wasteful and unfruitful expenditure on energy accounting project

The expenditure of Rs 52.17 crore incurred on energy accounting project became unfruitful due to non renewal of contract and non analysis of the energy accounting reports

6.2.32 The Board placed (August 2002 and March 2005) orders on Secure Meters Limited (SML) for supply and erection of 769 and 13,200 meters in feeders and DTrs respectively and also service maintenance of the metering system and data collection for preparation of energy accounts for two years at a cost of Rs 52.17 crore. An amount of Rs 4.27 crore was incurred for data collection. The installation of meters at all feeders/DTrs was completed in September 2004/July 2006. SML prepared and submitted the energy accounting reports till August 2006.

Audit observed that:

- The Board, however, did not renew the contract for energy accounting after August 2006.
- The meters installed at various feeders/DTrs, therefore, remained idle as they did not serve the purpose for which they were installed.
- The Board had not analysed the reports submitted by SML to take necessary action to reduce T&D losses.

Thus, the expenditure of Rs 4.27 crore, incurred on data collection, was rendered wasteful. Further, expenditure of Rs 47.90 crore, incurred on installation of meters in various feeders/DTrs, was also rendered unfruitful.

The Board stated (September 2008) that the necessary infrastructure and data bank was created. As the Board failed to do energy accounting with the infrastructure created, the investment remained unfruitful.

Gap between average revenue realisation (ARR) and average cost of supply (ACS) not eliminated

The percentage of gap between ARR and ACS in the project towns was between 209 and 449 in 2007-08

6.2.33 One of the objectives of APDRP was the 'narrowing and ultimate elimination of the gap between unit cost of supply and revenue realisation within a specified time frame'. Further, as per the instruction of MOP, the ARR should be one rupee per unit more than ACS. The ARR and ACS of the selected project towns for the period 2005-06 to 2007-08 were as below:

Project towns	2005-06			2006-07			2007-08		
	ACS	ARR	Gap	ACS	ARR	Gap	ACS	ARR	Gap
Dhanbad	4.89	1.38	3.51	4.89	1.41	3.48	4.89	1.57	3.32
Dumka	4.89	1.20	3.69	4.89	1.65	3.24	4.89	1.58	3.31
Hazaribag	4.89	0.73	4.16	4.89	1.17	3.72	4.89	0.89	4.00
Jamshedpur and Ghatsila	4.89	2.36	2.53	4.89	1.26	3.63	4.89	1.33	3.56

(Source: Data furnished by the Board)

Audit noticed that:

The Board failed to narrow the gap between ARR and ACS in the project towns. Against the reform programme of achieving break even in distribution operation, as per MOU, the ACS in the project towns was more than ARR by

Rs 3.31 to Rs 4.00 and the percentage of gap was between 209 and 449 in 2007-08. Non elimination of gap between ARR and ACS was attributed mainly to non reduction of AT&C losses.

The Board stated (September 2008) that the gap between ARR and ACS could be minimised only when the tariff rates are revised. The reply ignores the fact that the ARR could be increased by increasing revenue realisation and reducing the AT&C losses.

Other reform measures

No accountability of circles and feeders

The distribution circle failed to undertake the energy accounting and audit to treat each ESC as independent profit centre/complete business unit

6.2.34 A key administrative intervention under APDRP was ensuring accountability at the circle and feeder level by redesignating distribution circles as independent profit centers. Though the Board designated the Superintending Engineer of the circle as CEO and issued orders appointing JEs as feeder managers, the distribution circle failed to undertake the energy accounting and audit to treat each ESC as independent profit centre/complete business unit as conceived under APDRP.

Unbundling of SEB

The Board has not been unbundled despite 20 extensions by GOI

6.2.35 As per section 131 of the Electricity Act, 2003, the Board was to be reorganised into separate entities for generation, transmission and distribution. Further, as per section 172 of the Electricity Act, 2003, the Board may act as a State Transmission Utility and a licensee under the provisions of the Act for a period of one year and the State Government may authorise the Board to continue to function as the State Transmission Utility or a licensee for such further period as decided by the Central Government and the State Government. The GOJ is yet to unbundle the Board despite 20 extensions by GOI upto 31 October 2008.

Ineffective vigilance and legal measures to prevent theft of energy

6.2.36 Theft of electricity, in the form of unauthorised connections from the electricity supply system, tampering, by-passing of meters by the consumers *etc*. constitutes a substantial part of commercial loss. Hence, as a legal measure, GOI passed (May 2007) Electricity (Amendment) Act, 2007 treating the offences committed under section 135 to 140 and section 150 of the Electricity Act, 2003 as an offence and empowering the police officer, who investigates these offences, the powers as provided in the Code of Criminal Procedure, 1973. Further, as per section 153 of the Electricity Act, 2003, the State Government may constitute special courts for speedy trial of theft of energy cases. The vigilance measures *viz.*, setting up of vigilance squads, detection of theft cases and the follow up are critical to reduce commercial losses.

Audit examination, however, revealed that the desired vigilance and legal measures were not put in place or effectively exercised as discussed below:

- No special courts were established.
- The Board conducted only 90 raids in consumers' premises against

1,42,641 consumers in 2007-08 in respect of two ESCs.

- The Board realised only Rs 24.39 lakh out of Rs 40.77 lakh recoverable as penalty in 174 theft cases during 2005-08 in respect of two ESCs.

Demand was not served to defaulting consumers for penalty of Rs 8.62 crore assessed for pilferage of energy which was reduced to Rs 2.19 crore

- A test check of records revealed that seven high tension service connections of ESC Hazaribagh were pilfering energy between June and September 2005. The assessing officer assessed Rs 8.62 crore as penalty to be recovered from these consumers under section 126 of Electricity Act 2003. The Board, however, reduced (January 2006) it to Rs 2.19 crore. Even the demand for the reduced penal amount of Rs 2.19 crore was not served to the defaulting consumers till November 2007. The reason for not taking up follow up action was also not on record.

Information technology (IT) enabling

Consumer indexing, GIS mapping and setting up of online MIS for decision making had not been undertaken so far

6.2.37 According to the APDRP guidelines, IT and computer aided tools for revenue increase, outage reduction, monitoring and control played a vital role in distribution management. IT applications would be used in such processes in the distribution sector to ensure higher revenues as a result of segregation of T&D losses and controlling commercial losses, especially for metering, meter reading, billing, collection and outage reduction. Audit examination, however, revealed that consumer indexing, GIS mapping and setting up of online MIS for decision making had not been undertaken even after seven years of APDP/APDRP in the State.

Conclusion

The Board implemented (2005-06) APDRP in eight project towns and the total drawal of funds was only 50 *per cent* of the approved project cost. Further, the Board is yet to complete the projects in the test checked towns although completion schedule was long over. Against the targeted reduction of nine *per cent* per annum in AT&C loss, there was an increase of 2.79 *per cent* from 2005-06 to 2007-08 in respect of the test checked project towns as a whole. The Board also failed to derive the benefits of energy accounting and audit despite spending Rs 52.17 crore. Further, the Board did not issue detailed work orders for 35 *per cent* of works awarded between January and May 2005 till March 2008. Thus, implementation of APDRP was not effective and consequently the Board did not achieve the desired objectives envisaged under APDRP.

Recommendations

The Board needs to:

- re-orient its efforts under APDRP towards reduction of AT&C loss;
- carry out effective energy accounting and audit at the feeder and DTr levels and necessary pre-requisites for such auditing and accounting *e.g.* 100 *per cent* consumer metering, system meter reading and reconciliation and consumer indexing and other IT enabling activities are implemented accordingly;
- provide reliable and quality power supply to consumer by reducing feeder outages and failure of DTrs;

- implement the reform measures with a time bound schedule to improve the financial viability of the Board;
- evolve a comprehensive programme to monitor the release of funds and progress on a project by project basis.

6.3 Transaction Audit Observations

Important audit findings emerging out of test check of transactions of the State Government company/corporation are included in this Chapter.

Government Companies

Jharkhand State Mineral Development Corporation Limited

6.3.1 Loss of Interest

Loss of interest of Rs 27.16 lakh due to delay in getting the refund of deposits.

To meet the requirements of tiny and small consumers in the small scale sector of the State, Coal India Limited (CIL) requested (April 2005) the State Government to nominate a Government undertaking to act as State agency for distribution of coal and also intimate the requirement of coal. The State Government nominated (June 2005) Jharkhand State Mineral Development Corporation Limited (company) for this purpose and sought (June 2005) for an allotment of 30 lakh MT coal. CIL, however, allotted (August 2005) 3 lakh[29] MT of coal for 2005-06 which had to be lifted only on monthly basis. The State Government directed (September 2005) the company to deposit advance payment against the allotted quantity. The company without identifying potential buyers and requirement of coal, deposited (August/October 2005) a sum of Rs 8.28 crore with Central Coalfields Limited (CCL) and Bharat Coking Coal Limited (BCCL) for allotment of 45,000 MT of coal for August and September 2005. Subsequently, the company invited (September and November 2005) tenders from various small scale and non core sector industries for procurement of coal through the company and finalised 23 buyers for lifting of 10,950 MT of coal. The company could, however, sell 4,076 MT of coal to these buyers in 2005-06 which was only two *per cent* of the total allotment of 2.00 lakh[30] MT for the period August 2005 to March 2006. CCL/BCCL refunded (May to July 2006) the deposit of Rs 5.82 crore to the company and adjusted the balance deposit against the coal lifted by the company upto March 2007.

Audit noticed (February 2008) that the company did not undertake any market survey or explore market potential before taking up the venture. Thus, due to non-assessment of the requirements of coal, the company failed to lift the allotted quantity of 45,000 MT for which deposit of Rs 8.28 crore was made. The company received refund balance deposit of Rs 5.82 crore after a lapse of eight months after adjustment for payment towards 4,076 MT of coal. As a result, the company lost an interest of Rs 27.16[31] lakh.

The Management/Government stated (June 2008) that the deposits were made during the initial period of new venture to ensure non-lapse of allotment of

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[29] CCL – 2.40 lakh MT (@ 20,000 MT per month) and BCCL – 0.60 lakh MT (@ 5,000 MT per month).

[30] 25,000 MT x 8 months (August 2005 to March 2006).

[31] Calculated at interest rate of 7 *per cent* per annum.

coal and not based on procurement plan. The reply confirms the fact that the company failed to plan properly before taking up the new venture and it had no marketing plan to utilise the allotment made.

Jharkhand Police Housing Corporation Limited

6.3.2 Loss due to non recovery

Loss of Rs 35.72 lakh due to non-recovery of extra cost from the contractor.

Jharkhand Police Housing Corporation Limited (company) executed (between May 2003 and March 2005) agreements with National Building Construction Corporation Limited (NBCC) at a cost of Rs 12.20 crore for 124 civil works for construction of police stations, staff quarters, building for magazine and armoury *etc.,* at different police lines, to be completed by December 2005. The progress of work was slow and NBCC could complete only 106 works by January 2006. In the meanwhile, the Executive Engineer of concerned division had instructed (December 2005) NBCC to expedite works or else the agreements would be cancelled. In view of the slow progress of works, the Executive Engineer finally, terminated (June 2006) the agreements for 18 works after forfeiting the security deposit of Rs 42.38 lakh.

Audit scrutiny of records of Hazaribag Division revealed (December 2007) that the unexecuted portion of 14[32] works valuing Rs 2.53 crore was subsequently executed (November 2006 to February 2007) by the company through other contractors for Rs 4.19 crore, thereby incurring extra cost of Rs 1.66 crore as given in ***Appendix 6.8***. The company, however, only forfeited security deposit of Rs 38.71 lakh in respect of these 14 works, instead of recovering entire extra cost of Rs 1.66 crore from the contractor as per the terms of the conditions of the contract.

The company admitted the audit observation and stated (July 2008) that it has recovered Rs 91.69 lakh by forfeiting the security deposit *etc.*, relating to other works of the contractor. The recovery position of Rs 35.72[33] lakh was awaited.

The matter was reported to the Government in April 2008; their replies were awaited (December 2008).

Statutory Corporation

Jharkhand State Electricity Board

6.3.3 Unfruitful expenditure

Delay in installation of fire fighting system resulted in loss of Rs 41.11 crore due to fire and unfruitful expenditure of Rs 5.64 crore.

Jharkhand State Electricity Board issued Letter of Intent (LOI) (August 2002) to MECON, Ranchi for providing consultancy services for Renovation and

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[32] Out of 18 works, two works were not retendered; one work was not yet taken up and no extra cost in another work.

[33] Rs 127.41 lakh (Col. 11 of ***Appendix 6.8***) – Rs 91.69 lakh.

Modernisation of Patratu Thermal Power Station (PTPS). As a part of this assignment, MECON was to prepare a Fire safety report and finalise a tender for provision of fire fighting facilities.

MECON recommended (September 2002) to augment the existing fire fighting facilities and install the latest microprocessor based fire detection and alarm system, water based fire fighting system *etc.*, at a cost of Rs 12 crore, excluding taxes and duties. Based on the detailed specifications given by MECON, the Board invited (December 2002) offers for submission of bids before 4 February 2003, later extended up to 22 February 2003. Three firms submitted (February 2003) their offers with a validity period of six months *i.e.*, up to 21 August 2003. The Board accepted the lowest offer of Vijay Industries Private Limited (subsequently changed to Kiddey India Limited) at a cost of Rs 12.29 crore. As the Board did not have the technical expertise, it considered the specification of MECON as technical estimate for finalisation of tender. After receiving extended validity of offer up to December 2003 from Kiddey India Limited (KIL), the Board issued (December 2003) letter of intent (LOI) to KIL for design, engineering, manufacture and installation of the “state-of-art fire Protection System” within one year from the date of LOI. Later the Board executed (April 2004) the agreement with KIL and issued (June 2004) the work order.

Against the total claim of Rs 7.87 crore made by KIL towards engineering drawing, supply and erection, the Board paid Rs 5.64 crore upto May 2007. KIL is yet to complete the supply and erection of fire fighting system though the work should have been completed by December 2004. Meanwhile a fire occurred in August 2006 causing loss of Rs 41.11 crore worth of assets and equipments.

Audit observed that:

(i) Though the Board did not have the required expertise to prepare technical estimate, it did not appoint/engage any consultant for monitoring the commissioning of the system.

(ii) Though the Fire safety report of MECON prescribed a bar chart for completion of various items of work as per schedule, the work order did not contain any PERT/Bar chart to monitor the completion of work.

(iii) As per the Bar chart of MECON’s report, the required civil works for installation of the system were to commence from the second month of taking up of the work. Though the Board issued LOI in December 2003 with a completion schedule of 12 months, the site fronts for fire station building and reservoir tank were provided only in April 2006, *i.e.*, after a delay of 27 months from the date of issue of LOI. The Plant Management stated that the mechanical maintenance office of the thermal station was functioning at the selected site and not shifting the office caused delay in providing site. Further, KIL stopped the work in August 2006 without assigning any reason and restarted it in March 2007 only after a meeting with Board officials. Consequently, the modern fire detection and alarm system was yet (March 2008) to be installed.

(iv) After the occurrence of fire in January 2002, a high power committee was constituted (January 2002) to enquire the causes of fire, assess the damages and suggest remedial measures to prevent recurrence in future. The high power committee assessed (July 2002) the damages at Rs 22 crore. In order to avert any such fire accident in future and to mitigate the loss, the Board commissioned KIL in December 2003 to install the fire fighting system which was to be completed by December 2004. As the system was not installed even after 30 months from the date of LOI, the Board could not avert the fire accident which occurred in August 2006 and consequently suffered a loss of Rs 41.11 crore apart from unfruitful expenditure of Rs 5.64 crore.

Thus failure of the Board to ensure the commissioning of the fire fighting system even after 30 months of its schedule, and avert a fire accident during August 2006 resulted in loss of Rs 41.11 crore and unfruitful expenditure of Rs 5.64 crore.

The matter was reported to the Management /Government in April 2008; their replies were awaited (December 2008).

6.3.4 Avoidable Expenditure

Procurement of PSC poles from outside agencies due to non utilisation of capacity of its own units resulted in avoidable expenditure of Rs 1.16 crore.

Jharkhand State Electricity Board (Board) had two pre stressed concrete (PSC) pole manufacturing units at Dhurwa (Ranchi) and Jama (Dumka), each with a capacity of manufacturing 18,000 poles every year. Against the installed capacity of the units, number of poles manufactured by the two units during 2002-06 was as follows:

Year	Pole units		Total
	Dhurwa	Jama	
2002-03	3,300 (18)	3,250 (18)	6,550 (18)
2003-04	1,818 (10)	3,194 (18)	5,012 (14)
2004-05	2,418 (13)	1,040 (06)	3,458 (10)
2005-06	8,112 (45)	8,086 (45)	16,198 (45)

(Figures in bracket indicate percentage of capacity utilisation)

Audit observed (November 2007) that during 2002-06, the pole manufacturing units manufactured 31,218 poles which was only 22 *per cent* of their installed capacity of 1,44,000 poles. The Board procured 62,100 poles during 2002-06 at the rates of Rs 1080/Rs 1200 per pole, for Rs 6.80 crore. The departmental manufacturing cost of pole was Rs 901 and Rs 956 during 2002-04 and 2005-06 respectively. Had the poles been manufactured departmentally, the Board would have incurred an expenditure of Rs 5.64 crore on the manufacturing of 62,100 poles. Thus, instead of manufacturing the poles in their own two units the procurement of these poles from outside led to extra expenditure of Rs 1.16 crore as shown below:

Year	No. of poles procured	Cost of procurement of pole	Cost of production of pole	Excess cost incurred on procurement per pole	Total excess cost incurred on procurement of poles
		(Rupees)			(Rupees in lakh)
(1)	(2)	(3)	(4)	(5)=(3)-(4)	(6)=(2)x(5)
2002-03	29,000	1,080	901	179	51.91
2003-04	25,000	1,080	901	179	44.75
2005-06	8,100	1,200	956	244	19.76
Total					**116.42**

The Board stated (August 2008) that delay in finalisation of tender for the materials *viz.*, cement and high tensile steel wire within the validity period offered by the tenderer caused delay in procurement and consequent non availability of the materials led to non utilisation of the full capacity of the two units. It was further stated that the capacities of the pole manufacturing units were derated to 40-60 *per cent* as they were commissioned in 1982/1989. The reply only confirms the Board's failure to finalise tender within the validity period offered by the tenderer. Non-procurement of raw materials in time indicates a failure on the part of management. Further, the Board did not produce any technical assessment to substantiate the derated capacity of pole manufacturing units.

Thus, non utilisation of the available capacity of pole manufacturing units led to procurement of poles resulting into extra cost of Rs 1.16 crore.

The matter was reported to the Government in April 2008; their replies were awaited (December 2008).

6.3.5 Blocking of funds

Decision to purchase underground cable without assessing the actual requirements resulted in blockage of Rs 2.35 crore and loss of interest of Rs 76.37 lakh.

Jharkhand State Electricity Board (Board) prepares requirement of materials for each year taking into account the annual development plan (ADP)/rural electrification/operation and maintenance programmes proposed for the next year. Based on the requirement of material which is also known as Material Budget, the Board invites tenders for procurement.

The Board did not assess the actual requirement of underground cable for 2005-06, but invited (October 2004) tender for procurement of 10,000 metre (m.) of 33 KV Dry Cure type 3c/400 sq. mm. XLPE[34] underground cable. Of the price bids of technically qualified two tenderers, the stores and purchase (S&P) department recommended (June 2005) procurement of 10,000 m. of cable from the lowest tenderer at the cost of Rs 2.46 crore. Pending preparation of material budget for 2005-06, the Board proposed to purchase cable for implementation of ADP. The central purchase committee (CPC) approved placing of order on 27 June 2005 on Industrial Cables (India) Limited, being the selected tenderer. The Board issued (August 2005) the purchase order and the firm supplied (September/October 2005) 9,934 m. of cable for use by four Electric Supply Areas (ESAs) of the Board. Of the above

34 Cross Linked Poly Ethelene.

quantity, only 383 m. cable (four *per cent*) was utilised till March 2008 in two[35] ESAs.

Audit scrutiny revealed (March 2008) that:

- The Board procured the material without firming up actual requirement of material and the procurement was finalised before finalisation of Material Budget for 2005-06. Moreover, the subject item was not included even in the Material Budget for 2005-06 approved subsequently. Non-inclusion of the material in the Material Budget of ADP indicated that there was no plan/programme for utilisation of the cable during 2005-06.
- The four ESAs to whom the material was supplied had not indicated any requirement for the subject material. It was only after the recommendation of the S&P department to procure 10,000 m. of cables, that the Board asked the four ESAs to furnish their requirements for the material on 14 June 2005. The four ESAs furnished (June/July 2006) their requirement without identifying any scheme/programme to utilise the material. In fact on cross-checking with the ESA, Dhanbad, it was confirmed (April 2008) that the ESA had not sent any requirement.
- Though the tendering/procurement was processed without obtaining the Financial concurrence due to 'urgency of the material' (as stated in the note submitted to CPC), only 383 m. out of 9,934 m. (four *per cent*) was actually utilised even after lapse of 30 months from procurement. Thus, it was evident that the procurement was made on the basis of misleading/inaccurate data on actual requirement of the material.

Failure to utilise, even after 30 months, the material procured on grounds of 'urgency' showed that the procurement was hasty and without justification. Thus, procurement of material coupled with unjustified allocation to user ESAs resulted in blocking up of Board's fund to the tune of Rs 2.35 crore and consequent loss of interest of Rs 76.37[36] lakh.

The matter was reported to the Management/Government in April 2008; their replies were awaited (December 2008).

6.3.6 Non recovery of extra expenditure

Failure to recover extra expenditure incurred on procurement of power transformers from supplier resulted in non recovery of Rs 47.67 lakh.

The Board placed (December 2005 to February 2006) three purchase orders on Synergy Power Equipment Private Limited (S_1), Accurate Transformers Limited (S_2) and Anand Transformers Private Limited (S_3) for supply of 10, 10 and 15 power transformers (PTs) respectively at the landed cost of Rs 19.19 lakh each with the price variation as per IEEMA[37] indices. The suppliers had to complete the delivery within March/April 2006. S_1 and S_2 supplied the ordered quantity as per the delivery schedule. Against the ordered quantity of 15, S_3 supplied only six PTs during February to August 2006. As S_3 did not supply the entire quantity before March 2006, the Board cancelled

[35] Dhanbad and Hazaribag.
[36] Rs 2.35 crore x 30 months x 13 *per cent*.
[37] Indian Electrical and Electronics Manufacturers' Association.

(July 2006) the order for the balance quantity and placed (July and September 2006) fresh order with S_1 for nine PTs at the landed cost of Rs 19.94 lakh (including VAT) with applicable price variation. The Board paid a sum of Rs 2.62 crore including a price variation claim of Rs 82.93 lakh including an additional expenditure of Rs 53.43[38] lakh against the nine PTs delivered.

Audit observed that:

- As per clause 39 of general terms and conditions of tender, in case of failure to supply within contracted period, the Board reserved the right to cancel the contract and recover damages/loss suffered on procurement from other sources. Accordingly, the Board should have procured the materials at the risk and cost of S_3 and recovered the extra expenditure of Rs 53.43 lakh from it. The Board, however, did not invoke the clause and failed to recover the excess cost from S_3.
- The Board failed to claim Rs 5.76 lakh held towards security deposit in the form of bank guarantee.

The Management stated (March 2008) that Rs 5.76 lakh would be adjusted from the performance guarantee deductions held by the Board. Thus, failure to invoke the relevant clause of the general terms and conditions of tender had resulted in non recovery of excess expenditure of Rs 47.67 lakh.

The matter was reported to the Government in April 2008; their replies were awaited (December 2008).

6.3.7 Avoidable payment of price variation

Delay in issuing purchase order resulted in payment of higher price variation claim of Rs 31.54 lakh on procurement of transformer oil.

The Board invited (May 2005) tender for supply of 500 KL of transformer oil. Against the tender, eight firms submitted (June/July 2005) bids within due date and the Board opened (October 2005) the price part of four technically qualified tenderers. On opening price parts, the Board noticed that Raj Lubricants (Madras) Limited quoted the lowest landed cost of Rs 36534 per KL with the price variation applicable as per IEEMA indices. The supplier, on receiving enquiry from the Board about the delivery schedule and reduction in the quoted rate, stated (February 2006) that the entire tendered quantity would be supplied before March 2006 in one lot, immediately on placement of order at the quoted rate.

Taking into account the budgeted requirement for 2005-06, the Central Purchase Committee (CPC) approved (March 2006) procurement of 365 KL of transformer oil and the Board placed (July 2006) the order with the supplier for supply of material at the quoted rate with the applicable price variation without ceiling. The supplier supplied (September and October 2006) 364 KL transformer oil and the Board paid a sum of Rs 2.12 crore including the price variation claim of Rs 78.95 lakh.

[38] Rs 2.62 crore – (Rs 23.21 lakh x 9) = Rs 0.53 crore.

Audit observed (March 2008) that:

(i) Considering the volatility in the prices of transformer oil, the Board should have finalised the tender within the minimum possible time. But the Board, after opening (October 2005) the price part of the tender, took eight months to place the order (July 2006).

(ii) As the supplier had already offered to supply the material in one lot as per the Board's delivery schedule, the enquiry made (February 2006) by the Board with the supplier relating to delivery schedule was not required.

(iii) Though the price part was opened in October 2005, the stores and purchase (S&P) department of the Board took more than three months and the Board placed order only in July 2006, after a delay of six months.

(iv) Had the Board finalised the tender and issued purchase order in January 2006, with the condition to complete the delivery within one month as specified in the letter of intent, the Board would have avoided expenditure of Rs 31.54 lakh incurred on price variation due to increase in price of raw materials during January to July 2006 as given in the ***Annexure 6.9***.

The Board stated (May 2008) that one of the non-responsive bidders (firm) lodged a complaint for not opening its price part and an enquiry conducted in this regard caused delay for placing purchase order. Besides, after holding an enquiry, the Board did not find any such letter from the tenderer. The reply was not in consonance with the fact that the price part was opened in October 2005 itself and consideration of representation of the firm regarding any terms of tender after opening of the price part would not have vitiated the tendering procedures, even if it was received. Hence, the delay attributed to enquiry was not correct.

Thus, due to delay in issuing purchase order, the Board incurred avoidable expenditure of Rs 31.54 lakh on account of price variation on procurement of transformer oil.

The matter was reported to the Government in May 2008; their replies were awaited (December 2008).

6.3.8 Loss due to deficiencies in purchase of power

Deficiencies in purchase and accounting of energy by the Board.

Introduction

6.3.8.1 To meet the demand of power of its consumers within the territory of Jharkhand, Jharkhand State Electricity Board (Board) generates energy through its power plants (Hydel power station at Sikidiri and Thermal power station at Patratu) and also purchases energy from central public sector undertakings (CPSUs) such as Damodar Valley Corporation (DVC), National Thermal Power Corporation (NTPC), National Hydroelectric Power Corporation (NHPC), Power Trading Corporation (PTC) and Tenughat Vidyut Nigam Limited (TVNL), a State undertaking.

State Load Despatch Centre (SLDC), Ranchi and transmission circles of the Board, account for the energy purchased by the Board from CPSUs, whereas the energy purchased from DVC and West Bengal State Electricity Board (WBSEB) is accounted for at the points of receipt of energy through joint meter readings. The details of power purchased and paid for, power received from PSUs for the period 2003-04 to 2007-08 are given in ***Table-A***.

Table-A

(in Million Units)

Name of CPSU	2003-04		2004-05		2005-06		2006-07		2007-08	
	Energy purchased and paid for	Energy received	Energy purchased and paid for	Energy received	Energy purchased and paid for	Energy received	Energy purchased and paid for	Energy received	Energy purchased and paid for	Energy received
DVC (radial)	1,889.11	1,845.33	3,019.34	2,258.55	2,510.80	2,430.96	2,742.70	2,622.84	2,969.81	2,880.77
DVC, NHPC, NTPC and PTC	688.02	927.32	1,229.16	1,966.58	1,844.81	1,668.17	1,708.71	962.05	3,435.82	2,223.84
TVNL[39]	1,131.53	1,103.73	1,092.50	1,085.06	1,308.56	1,225.96	2,375.52	2,202.78	1,599.81	1,608.30
WBSEB	27.48	27.48	52.01	52.01	33.68	33.68	39.11	39.11	46.18	46.18

The details of energy purchased and generated, amount billed and realised for the period 2003-04 to 2007-08 are given in ***Table-B***.

Table-B

Year	Energy received (MU)			Energy billed (MU)	Amount billed (Rupees in crore)	Amount realised (Rupees in crore)
	Purchase	Generation	Total			
2003-04	3,736.14	1,201.71	4,937.85	2,547.96	1,272.53	887.72
2004-05	5,393.01	889.59	6,282.60	2,881.15	1,452.80	930.44
2005-06	5,697.85	836.14	6,533.99	3,559.80	1,537.63	1,084.24
2006-07	6,866.04	735.27	7,601.31	3,816.22	1,533.97	1,167.96
2007-08	8,051.62	808.36	8,859.98	4,273.00	1,585.08	1,294.61

The performance of the Board, relating to purchase of power and accounting thereof for the period 2003-04 to 2007-08 was evaluated during audit from February to June 2008. The records of the Board Headquarters, SLDC Ranchi, two transmission Circles (Jamshedpur & Ranchi), three Supply Circles (Dhanbad, Hazaribag & Jamshedpur) including its divisions, and 17 Grid and power sub stations under the transmission and supply circles as given in ***Appendix 6.10*** were examined besides the records of TVNL at Ranchi and at Lalpania.

Audit Findings

Purchase and accounting of power from CPSUs

6.3.8.2 Non reconciliation of discrepancy in the records maintained at the intake point of energy and at Board Headquarters

The system of power purchase from CPSUs is detailed below:

- The transmission circles of the Board account for the energy supplied by DVC, NHPC, NTPC and PTC.

[39] Figures for 2007-08 in respect of TVNL are under reconciliation.

- The SLDC, Ranchi computes the energy purchased from the above CPSUs in each month.
- The payment is, however, made on the basis of energy bills prepared by Eastern Region Power Committee (ERPC) Kolkata.

The quantum of energy received by the Board as per the records of SLDC and the quantum of energy paid for by the Board to PSUs during 2003-04 to 2007-08 were 7,747.96 MU and 8,906.52 MU respectively (as shown in Table-A) indicating wide variations in quantum of energy purchased and energy received.

Audit observed that the Board failed to reconcile the difference of 1,158.56 MU between the records maintained in the field office and Board Headquarters.

Failure to avail cash incentive from CPSUs as per the agreement

6.3.8.3 Government of India, Government of Jharkhand and Reserve Bank of India executed a tripartite agreement which envisaged schemes for securitisation of past dues and payment of current dues. The agreement *inter alia* contained the following:

- The outstanding power purchase dues payable by SEBs to CPSUs upto 30 September 2001 shall be converted into long term loans to be repaid by the State Government and the latter would issue bonds to the respective CPSUs.
- Upon securitisation of past dues, the SEBs shall open irrevocable letter of credit (LC) to settle current dues after 1 October 2001.
- As per clause 13.3 of Annexure-A of the agreement, the SEB that opens the LCs by 30 June 2002 and operates them without any default until 31 December 2002 would be entitled to a cash incentive of two *per cent* of the nominal value of the bonds issued to the CPSUs.

Audit observed that the Board, however, opened LC accounts in favour of DVC, NHPC and PGCIL only in September2004 / September 2005.

Thus, due to non opening of LC accounts in time, the Board lost Rs 23.10[40] crore as cash incentive on the nominal value of bonds issued amounting to Rs 1155.20 crore in respect of the three CPSUs.

Purchase and accounting of power from DVC

Irregular payment to DVC due to difference in energy received and energy billed

Excess payment for 1005.368 MU of energy valuing Rs 263.20 crore was made to DVC due to lack of monitoring

6.3.8.4 As per the power purchase agreement between DVC and JSEB, DVC supplied energy to the Board (three[41] electric supply areas) from 31 points in DVC command area and the energy was to be accounted for by electric supply areas (ESAs) after taking joint meter readings at the radial

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[40] Rs 1155.20 crore x 2 *per cent*.

[41] Electric supply area (ESA) Dhanbad (17 Points), Hazaribag (12 points), and Jamshedpur (2 points).

points of receipt except at Musabani. The quantum of energy received from 30 DVC points as per the records maintained in all the three ESAs for the period April 2003 to March 2008 was compiled in audit and further tallied with the quantum of energy paid for to DVC during the same period. The results are as tabulated below:

Year	Quantum of energy paid for (MU)	Quantum of energy received (MU)	Difference in quantum of energy (MU)	Rate /unit (in Rupees)	Excess amount paid (Rupees in crore)
2003-04	1,805.726	1,767.842	37.884	2.60	9.85
2004-05	2,919.593	2,173.690	745.903	2.56	190.95
2005-06	2,390.648	2,322.026	68.622	2.74	18.80
2006-07	2,592.989	2,483.274	109.715	2.87	31.49
2007-08	2,731.701	2,688.457	43.244	2.80	12.11
Total	**12,440.657**	**11,435.289**	**1,005.368**		**263.20**

Audit observed that:

- Though the ESAs accounted for 11,435.289 MU, the energy billed by DVC and paid for by the Board during 2003-08 was 12,440.657 MU.
- The Board did not analyse the reasons for excess payment of 1,005.368 MU as the Board failed to verify the receipt of energy as per the records maintained at Headquarters with the records maintained in field offices.
- The Board was not aware of the payment made for the quantum of energy not received and accounted for by the ESAs. This was brought to notice of the Board in August 2007. The lack of monitoring at the apex level in the Board resulted in irregular payment of Rs 263.20 crore.

The Board stated (September 2008) that meter readings at all the radial points were being taken by DVC through meter reading instruments. It, however, did not explain the difference between energy paid for at Board Headquarters and energy received in its field offices.

Audit further noticed that:

- Wherever energy is purchased from DVC at 33 KV, the energy meters are installed at the receiving points of the Board.
- DVC prepares bills based on the meter reading taken from these energy meters.
- As an internal control measure, the Board installed (August 2005) check meter of 0.2[42] class accuracy at 18 points to verify the readings of energy meter.

A test check of energy as per the energy meter and check meter of one radial point (Ramgarh) for the period April 2006 to March 2007 revealed that:

There was a difference of 6.66 MU of energy valuing Rs 1.91 crore between the meter readings recorded by the two meters

- DVC charged 278.99 MU for energy received but the energy received as per reading of check meter was 272.33 MU only.
- There was a difference of 6.66 MU of energy valuing Rs 1.91 crore between the meter readings recorded by the two meters.
- The Board did not analyse the reasons for such variations.

42 0.2 class accuracy means allowable variation of ± 0.2 *per cent* on the load of full capacity.

The purpose of installation of check meter at the Board's point did not serve the purpose for which it was installed and the Board made an excess payment of Rs 1.91 crore.

Wasteful expenditure on purchase of Apex meters for accounting of energy

6.3.8.5 The Board procured (June 2004) 23 sets of Apex meters (each set consisting of one main meter and one check meter) from Secure Meters Limited (SML) at a cost of Rs 1.89 crore to commission them in the place of existing feeder meters as the accuracy of recording of energy (energy supplied by DVC) by these Apex meters was superior to existing feeder meters. Of these, the Board installed (August 2005) 20 meters. The Chairman of the Board ordered (August 2007) to remove all check meters from the set of meters stating that Board's meters installed at all the supply points were sufficient for recording quantum of energy. In compliance with the order, the Chief Engineer, Transmission removed, from three[43] power sub stations, only three check meters which were lying unutilised in the Board Headquarters.

The details relating to uninstalled three set of Apex meters and the existing feeder meters which were removed on account of installation of Apex meters, were also not furnished.

As the energy accounting data collected by SML was not analysed by the Board, the benefits derived by installing meters of improved accuracy in place of existing feeder meters could not be worked out. Thus, the expenditure of Rs 1.89 crore incurred on purchase of Apex meters became wasteful.

Loss due to difference in energy billed and received in DVC command area

6.3.8.6 The power supply of DVC in its command area is through the ESAs Dhanbad and Hazaribag which consist of 29 points of DVC radial lines.

Audit scrutiny of data relating to energy received, energy billed, amount billed and amount of revenue realised by these supply areas for the period April 2003 to March 2008 revealed that:

- ESA Dhanbad and Hazaribag received 11,188.68 MU of energy for sale but could bill only 4,042.83 MU.
- The balance of 7,145.85 MU of energy valuing Rs 1900.80[44] crore was not billed.
- The net loss, after deducting permissible distribution loss of 7.5 *per cent*, was Rs 1677.58[45] crore in five years.

Audit scrutiny of the records, files, statements *etc*., of GM cum CE, ESA, Dhanbad, ESE, Electric Supply Circle, Loyabad and Electrical Executive Engineer, Electric Supply Division, Jharia for the Period 2003-04 to 2007-08 further revealed that:

- The Board was receiving energy at 132/11 KV from DVC point at Sindri for distribution of energy to its HT and LT consumers.

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[43] Kuju, Nai Sarai and Barhi under ESC Hazaribag.
[44] 7,145.85 MU x Rs 2.66.
[45] (11,188.68 MU x 92.5 *per cent*) – 4,042.83 MU = 6,306.70 MU x Rs 2.66.

- The Board paid for 1,491.33 lakh units to DVC for supply of energy but could raise bills for 480.74 lakh units only against its consumers leaving 1,010.59 lakh units worth Rs 27.56 crore unbilled as shown below:

Year	Quantum of energy paid for to DVC (in lakh units)	Quantum of energy billed by Board (in lakh units)	Quantum of energy unbilled by Board (in lakh units)	Rate/unit (in Rupees)	Value of energy unbilled (Rs in crore)
2003-04	215.40	38.85	176.55	2.60	4.59
2004-05	286.18	86.20	199.98	2.56	5.12
2005-06	251.39	120.00	131.39	2.74	3.60
2006-07	364.70	111.72	252.98	2.87	7.26
2007-08	373.66	123.97	249.69	2.80	6.99
Total	**1,491.33**	**480.74**	**1,010.59**		**27.56**

The loss to the Board was attributable to inefficient energy accounting due to which it failed to arrest line loss and detect theft of energy consumed by various consumers.

Loss due to short receipt of energy

The Board incurred transmission loss of 40.03 MU valuing Rs 10.65 crore during the period 2003-04 to 2006-07

6.3.8.7 The system of power purchase at Mosabani is detailed below:

- The energy is supplied by DVC through 132 KV sub station and is received by the Board at Dhalbhumgarh point which is at a distance of 15 Km (approx.) from Mosabani.
- The energy meter installed at Mosabani (DVC point) records the energy exported to the Board and bills are prepared and paid for accordingly.
- The Board installed an energy meter at the receiving point (Dhalbhumgarh) to record the energy received.

The quantum of energy recorded at the DVC point and the Board point for the period 2003-04 to 2006-07 was as below:

Year	Receipt of energy (MU)		Difference MU (Percentage)
	As per records at DVC point	As per records at Board point	
2003-04	83.38	77.49	5.89 (7.06)
2004-05	106.74	84.86	21.88 (20.50)
2005-06	120.15	108.99	11.16 (9.29)
2006-07	140.67	139.57	1.10 (0.78)
Total	**450.94**	**410.91**	**40.03**

Audit observed that:

- On account of transmission of energy from DVC point to Board point, the Board incurred transmission loss of 40.03 MU valuing Rs 10.65 crore during the period.
- The percentage of annual transmission loss varied from 0.78 to 20.50 against the norm of 1.20 *per cent* specified by transmission zone, Jamshedpur.
- The Board, however, failed to analyse the reasons for wide variations in transmission loss.

Thus, the purpose of installation of meter at the Board's point and collection of data was defeated.

Purchase and accounting of power from TVNL

Loss of 250.39 MU due to excess transmission loss

6.3.8.8 Scrutiny of records relating to quantum of energy supplied by TVNL and receipt of energy by the Board at GSS (at Patratu and Biharsharif at 220 KV supply system) for the period April 2003 to March 2007 revealed that the quantum of energy received by the Board was 5,617.53 MU while the energy supplied by TVNL was 5,908.11 MU and the transmission loss incurred was 290.58 MU as detailed below:

(Quantum of energy in MU)

Year	Energy supplied by TVNL	Energy received by Board	Transmission loss in MU (*per cent*)
2003-04	1,131.53	1,103.73	27.80 (2.46)
2004-05	1,092.50	1,085.06	7.44 (0.68)
2005-06	1,308.56	1,225.96	82.60 (6.31)
2006-07	2,375.52	2,202.78	172.74 (7.27)
Total	**5,908.11**	**5,617.53**	**290.58**

Audit observed that:

- The percentage of transmission loss increased from 0.68 in 2004-05 to 7.27 in 2006-07.
- The Board, however, failed to analyse the reasons for such drastic increase in transmission loss after 2004-05.
- The Board did not specify any norms for transmission loss from 220 KV line, hence, actual transmission loss incurred during 2004-05 has been adopted as norm.
- Consequently, the Board incurred excess transmission loss of 250.39 MU valuing Rs 46.69[46] crore.

Purchase and accounting of power from WBSEB

Avoidable expenditure due to non revision of contract demand with WBSEB

6.3.8.9 The Board, as an HT consumer, purchases power from WBSEB at contract demand of 5,000 KVA. The power was being drawn from WBSEB before the formation of JSEB. Audit scrutiny revealed that the Board drew energy in excess of the contract demand for the period April 2003 to March 2008 and paid penal demand and energy charges of Rs one crore and Rs 26 lakh respectively. Thus, due to non enhancement of contract demand and non revision of agreement with the WBSEB, the Board lost Rs 1.26 crore which could have been avoided.

Internal Control

6.3.8.10 Internal control is an integral component of management process to provide reasonable assurance to the management that the operations are carried out effectively and efficiently, the financial reports and operational data are reliable and the applicable laws and regulations are complied with to

[46] 2003-04 – 20.10 MU x Rs 1.68; 2005-06 – 73.70 MU x Rs 1.84; 2006-07 – 156.59 MU x Rs 1.90.

achieve organisational objectives. A review of the existing system revealed the following deficiencies:

- The data relating to power purchase maintained by the ESAs/SLDC were not used for verification of the power purchase bills and payment thereon.
- There was no system to verify the accuracy of the data maintained at field and Headquarter offices.
- Internal audit was altogether absent.

Conclusion

The control mechanism of the Board to verify the energy billed by suppliers with reference to the records maintained at the ESAs/SLDC was not effective resulting in excess payment of Rs 263.20 crore. There was a failure to analyse the excess transmission loss of 250.39 MU in purchase of power from TVNL. Non revision of the contract demand resulted in payment of penal charges amounting to Rs 1.26 crore to WBSEB.

Recommendations

The Board needs to:

- develop an internal control mechanism for vetting of energy bills before making payments;
- evolve a mechanism to check accuracy of energy meters by ensuring periodical calibration;
- reduce line loss and prevent theft of energy through periodical raids and inspection of service connections of various consumers; and
- ensure correct accounting of energy and reconcile with the bills submitted by CPSUs.

General

Response to Inspection Reports and Draft Paragraphs

6.3.9 Audit observations noticed during audit and not settled on the spot are communicated to the heads of the respective PSUs and concerned departments of the State Government through Inspection Reports. The heads of PSUs are required to furnish replies to the Inspection Reports through the respective heads of departments within a period of six weeks. A review of the Inspection Reports issued up to March 2008 pertaining to the Jharkhand State Electricity Board and companies disclosed that 387 paragraphs relating to 173 Inspection Reports remained outstanding at the end of March 2008 (as given in ***Appendix 6.11***).

Similarly, draft paragraphs and reviews on the working of PSUs are forwarded to the Principal Secretary/Secretary of the Administrative department concerned demi-officially seeking confirmation of facts and figures and their comments thereon within a period of six weeks. It was, however, observed that against eight draft paragraphs and one draft review forwarded to various departments during April to July 2008, replies to seven draft paragraphs and one review from the Government were awaited (December 2008).

It is recommended that the Government may ensure that (a) procedure exists for action against the officials who fail to send replies to inspection reports/draft paragraphs/reviews and ATNs on the recommendations of COPU, as per the prescribed time schedule; (b) action to recover loss/outstanding advances/over payments is taken within the prescribed period and (c) the system of responding to the audit observations is revamped.

Ranchi, **(Mukesh P Singh)**
The 20 February 2009 **Accountant General (Audit), Jharkhand**

Countersigned

New Delhi, **(Vinod Rai)**
The 26 February 2009 **Comptroller and Auditor General of India**