
CHAPTER-III

ECONOMIC SECTOR (GOVERNMENT COMMERCIAL AND TRADING ACTIVITIES)

3.1 Overview of State Public Sector Undertakings

Audit of Government Companies is governed by Section 619 of the Companies Act, 1956. The accounts of the State Government Companies are audited by Statutory Auditors appointed by Comptroller and Auditor General (CAG). These accounts are also subject to supplementary audit conducted by CAG. As on 31 March 2012, the State of Mizoram had six working PSUs (all Companies), which employed 267 employees. These PSUs registered a turnover of ₹ 1.57 crore for 2011-12 as per the latest finalised accounts. This turnover was equal to 0.02 *per cent* of State GDP indicating insignificant place in the State economy. The PSUs incurred a loss of ₹ 4.56 crore and had accumulated losses of ₹ 50.58 crore as per their latest finalised accounts.

Investment in PSUs

As on 31 March 2012, the Investment (Capital and Long Term Loans) in six PSUs was ₹ 92.57 crore. It grew by over 3.75 *per cent* from ₹ 89.23 crore in 2006-07.

Performance of PSUs

Five State PSUs were incurring losses continuously during the period between 2006-07 and 2011-12. Zoram Industrial Development Corporation Limited ranked first among the PSUs in incurring Losses followed by Mizoram Food and Allied Industries Corporation Limited during this period.

The Losses of PSUs are mainly attributable to deficiencies in financial management, planning, implementation of projects, running their operations and monitoring. A review of three latest Audit Reports of CAG indicated that the State PSUs incurred losses to the tune of ₹ 10.20 crore which were controllable. The PSUs need to adopt more efficient and effective financial management practices. There is a need for professionalism and accountability in the functioning of PSUs.

Arrears in accounts

Five working PSUs had arrear of 30 accounts as of September 2012.

Introduction

3.1.1 The State Public Sector Undertakings (PSUs) consist of State Government companies and Statutory corporations. The State PSUs are established to carry out activities

of commercial nature while keeping in view the welfare of people. In Mizoram, the State PSUs have no insignificant impact in the State Economy. The State PSUs registered a Turnover of ₹ 1.57 crore for 2011-12 as per their latest finalised accounts as of September 2012. This Turnover was equal to 0.02 *per cent* of State Gross Domestic Product (GDP) for 2011-12. The State PSUs incurred a loss of ₹ 4.56 crore in the aggregate for 2011-12 as per their latest finalised accounts. They employed only 267¹ employees as of 31 March 2012. The State PSUs do not include three Departments² of the State Government which carry out commercial operations.

3.1.2 As on 31 March 2012, there were six Government companies (all working) and no Statutory corporation in the State of Mizoram.

Audit Mandate

3.1.3 Audit of Government companies is governed by Section 619 of the Companies Act, 1956. According to Section 617, a Government company is one in which not less than 51 *per cent* of the Paid Up Capital is held by Government(s). A Government company includes a subsidiary of a Government company. Further, a Company in which 51 *per cent* of the Paid Up Capital is held in any combination by Government(s), Government companies and Corporations controlled by Government(s) is treated as if it were a Government company (deemed Government company) as per Section 619-B of the Companies Act.

3.1.4 The accounts of the State Government companies (as defined in Section 617 of the Companies Act, 1956) are audited by Statutory Auditors, who are appointed by Comptroller and Auditor General (CAG) of India as per the provisions of Section 619(2) of the Companies Act, 1956. These accounts are also subject to supplementary audit conducted by CAG as per the provisions of Section 619 of the Companies Act, 1956.

Investment in State PSUs

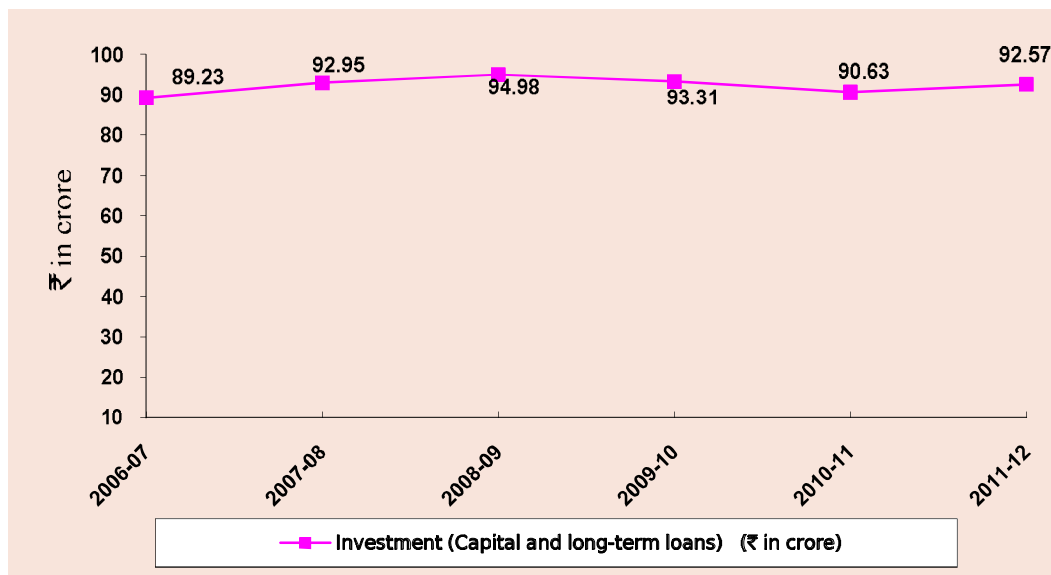
3.1.5 As on 31 March 2012, the Investment in the six PSUs was ₹ 92.57 crore: Capital ₹ 61.64 crore and Long term Loans ₹ 30.93 crore.

A summarized position of government investments in State PSUs is detailed in **Appendix-3.1.1**.

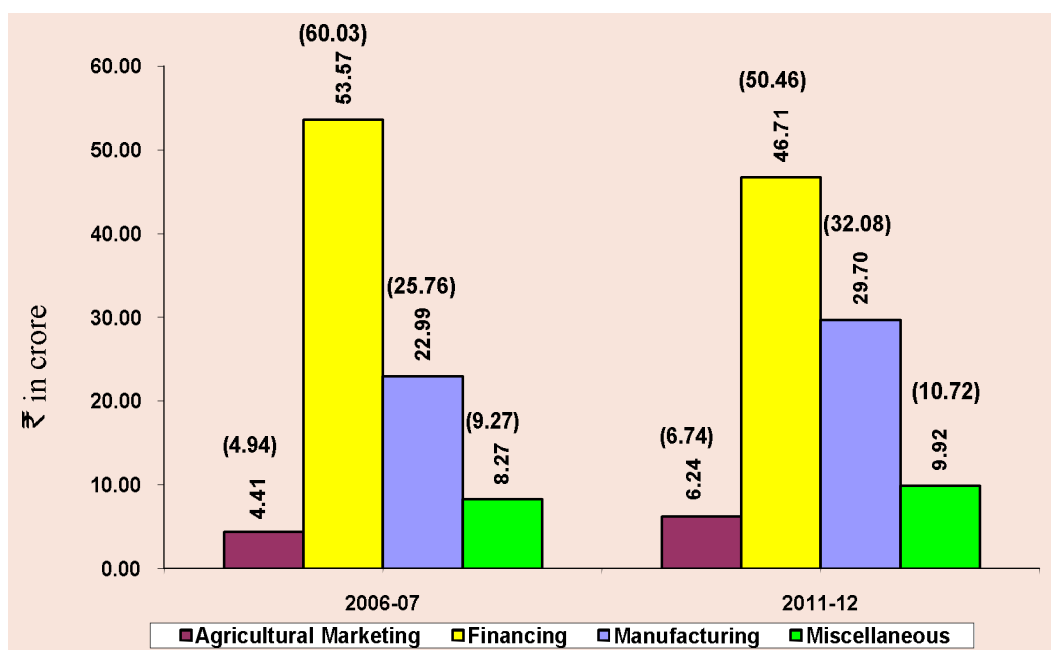
3.1.6 The total investment of the State Government consisted of 66.59 *per cent* contribution towards Capital 33.41 *per cent* Long Term Loans. The investment increased by 3.75 *per cent* from ₹ 89.23 crore in 2006-07 to ₹ 92.57 crore in 2011-12 as shown in the graph below:

¹ As per the details provided by five PSUs

² (i) Power & Electricity, (ii) Food, Civil Supplies & Consumer Affairs and (iii) Transport



3.1.7 The total Investment in various sectors and percentage thereof at the end of 31 March 2007 and 31 March 2012 are indicated below in the bar chart:



(Figures in brackets show the percentage of sector investment to total investment)

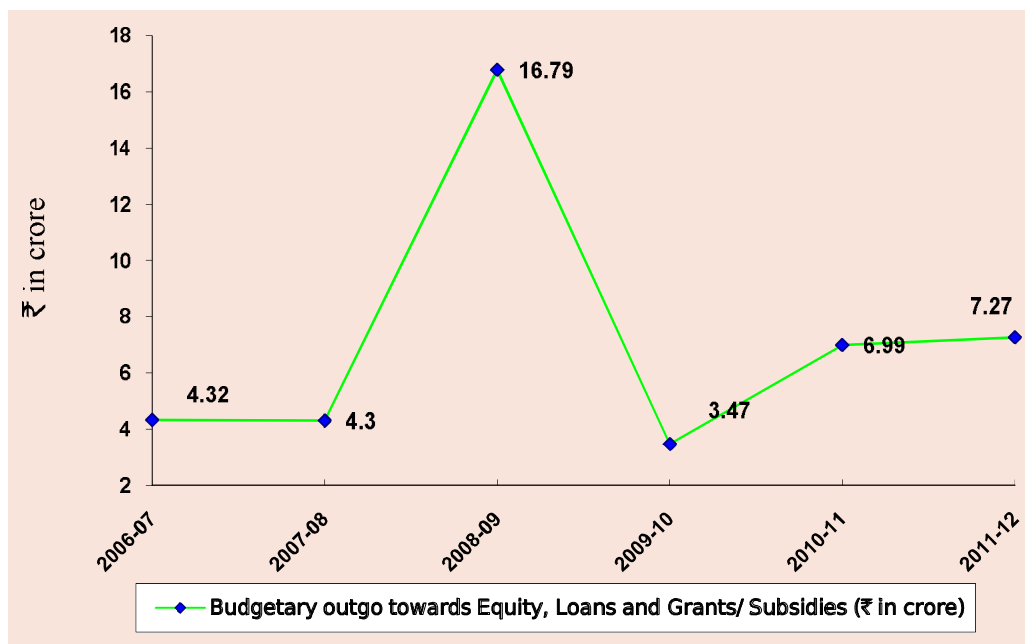
3.1.8 The increase in total Investment was mainly due to increase in Equity in Agricultural Marketing (₹ 1.83 crore), Manufacturing (₹ 6.71 crore) and Miscellaneous Sectors (₹ 1.65 crore).

Budgetary outgo, Grants/Subsidies, Guarantees and Loans

3.1.9 The details regarding budgetary outgo towards Equity, Loans, Grants/Subsidies, Guarantees issued in respect of State PSUs are given in **Appendix-3.1.2**. The summarised details for three years ended 31 March 2012 are given below.

| Sl. No. | Particulars | 2009-10 | | 2010-11 | | 2011-12 | |
|---------|----------------------------------|-------------|---------------------|-------------|---------------------|-------------|---------------------|
| | | No. of PSUs | Amount (₹ in crore) | No. of PSUs | Amount (₹ in crore) | No. of PSUs | Amount (₹ in crore) |
| 1. | Equity Capital outgo from budget | 4 | 1.26 | 3 | 1.67 | 2 | 1.40 |
| 2. | Loans given from budget | - | - | 1 | 0.63 | - | - |
| 3. | Grants/Subsidy received | 2 | 2.21 | 3 | 4.69 | 3 | 5.87 |
| 4. | Total Outgo | 4 | 3.47 | 5 | 6.99 | 5 | 7.27 |
| 5. | Guarantee Commitment | 2 | 15.02 | 2 | 15.13 | 1 | 19.40 |

3.1.10 The details regarding budgetary outgo towards Equity, Loans and Grants/Subsidies for past six years are given in the graph below.



3.1.11 As on 31 March 2012, Guarantees amounting to ₹ 19.40 crore was outstanding against Zoram Industrial Development Corporation Limited. No Guarantee Commission was payable to the State Government by the Government Companies. There was no case of conversion of Government Loan into Equity, Moratorium in Repayment of Loan and Waiver of Interest in this year.

Reconciliation with Finance Accounts

3.1.12 The figures in respect of Equity, Loans and Guarantees outstanding as per records of State PSUs should agree with the figures appearing in the Finance Accounts of the State. In case the figures do not agree, the concerned PSUs and the Finance Department should carry out reconciliation of differences. The position in this regard as at 31 March 2012 is stated below.

(₹ in crore)

| Outstanding in respect of | Amount as per Finance Accounts | Amount as per records of PSUs | Difference |
|---------------------------|--------------------------------|-------------------------------|------------|
| Equity | 3.03 | 55.85 | 52.85 |
| Loans | 4.01 | 9.35 | 5.34 |
| Guarantees | 81.58 | 19.40 | (-) 62.18 |

3.1.13 We observed that the differences occurred in respect of all PSUs and the differences were pending reconciliation for more than ten years. The Principal Accountant General had taken up the matter with the Chief Secretary, Government of Mizoram, Administrative Department of respective PSUs and the Managing Directors of PSUs periodically and drawn their attention to the need to reconcile figures as appearing in Finance accounts and in their respective accounts. The Government and the PSUs should take concrete steps to reconcile the differences in a time-bound manner.

Performance of PSUs

3.1.14 The financial results of PSUs are detailed in **Appendix-3.1.3**. A ratio of PSUs Turnover to State GDP shows the extent of PSU activities in the State economy. Table below provides the details of working PSUs Turnover and State GDP for the period 2006-07 to 2011-12.

(₹ in crore)

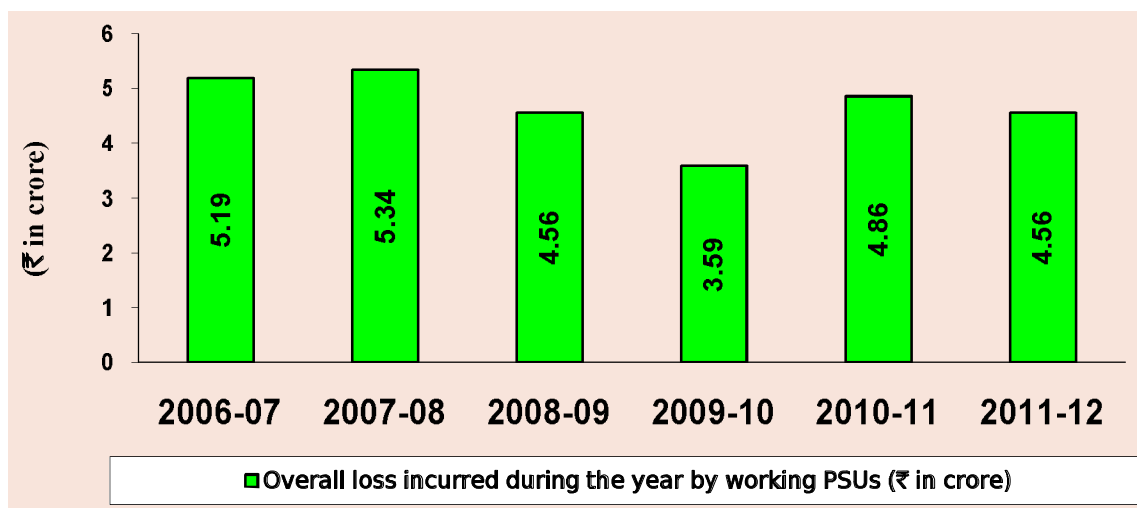
| Particulars | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
|-------------------------------------|---------|---------|---------|---------|---------|---------|
| Turnover ³ | 0.99 | 1.79 | 2.41 | 1.45 | 1.72 | 1.57 |
| State GDP ⁴ | 3289.98 | 3815.51 | 4577.11 | 5283.93 | 6057.70 | 6991.40 |
| Percentage of Turnover to State GDP | 0.03 | 0.05 | 0.05 | 0.03 | 0.03 | 0.02 |

3.1.15 The percentage of Turnover to State GDP declined from 0.05 *per cent* in 2007- 08 to 0.03 *per cent* in 2009-10, remained unchanged in 2010-11 and then declined to 0.02 *per cent* in 2011-12.

³ Turnover as per the latest finalised accounts as of 30 September 2012

⁴ The final figures of State GDP was provided by the Economic and Statistics Department of State Government has been adopted

3.1.16 Losses incurred by State PSUs (all working) during 2006-07 to 2011-12 are given below in the bar chart.



Five State PSUs were incurring Losses continuously during the period between 2006-07 and 2011-12. Zoram Industrial Development Corporation Limited ranked top among the PSUs in incurring Losses followed by Mizoram Food and Allied Industries Corporation Limited during this period.

3.1.17 The Losses of PSUs are mainly attributable to deficiencies in financial management, planning, running their operations and monitoring. A review of three latest Audit Reports of CAG shows that the State PSUs incurred controllable Losses to the tune of ₹ 10.20 crore and Infructuous Investment of ₹ 1.69 crore. Year-wise details from Audit Reports are stated below.

| (₹ in crore) | | | | |
|---|---------|---------|---------|-------|
| Particulars | 2009-10 | 2010-11 | 2011-12 | Total |
| Net loss of working PSUs | 3.59 | 4.86 | 4.56 | 13.01 |
| Controllable losses as per CAG's Audit Report | 1.00 | 26.27 | 10.20 | 37.47 |
| Infructuous Investment | 1.09 | - | 1.69 | 2.78 |

3.1.18 The above Losses pointed out by Audit Reports of CAG are based on test check of records of PSUs. The actual Controllable Losses would be much more. The above table shows that with better improvement and efficiency in management, the losses can be minimized. The PSUs can discharge their role efficiently only if they are financially self-reliant. The above situation points towards a need for professionalism and accountability in the functioning of PSUs.

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

(₹ in crore)

| Particulars | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
|--|---------|---------|---------|---------|---------|---------|
| Return on Capital Employed (per cent) | NIL | NIL | NIL | NIL | NIL | NIL |
| Debt | 33.47 | 34.53 | 33.65 | 30.30 | 30.93 | 30.93 |
| Turnover ⁵ | 0.99 | 1.79 | 2.41 | 1.45 | 1.72 | 1.57 |
| Debt/Turnover Ratio | 33.81:1 | 19.29:1 | 13.96:1 | 20.90:1 | 17.98:1 | 19.70:1 |
| Interest Payments | 1.34 | 2.14 | 2.18 | 2.18 | 0.30 | 0.30 |
| Accumulated losses | 31.14 | 33.30 | 40.23 | 43.45 | 49.20 | 50.58 |

3.1.20 As per the latest Finalised Accounts as of 30 September 2012, of five working companies, the Capital Employed worked out to ₹ 79.47 crore and had shown negative Return on Capital Employed. Despite increase in Capital Employed, Return on Capital Employed has not shown any significant improvement. Five PSUs were incurring Losses continuously over the years which resulted in increase in Accumulated Losses from ₹ 31.14 crore in 2006-07 to ₹ 50.58 crore in 2011-12.

3.1.21 The State Government has not formulated (September 2012) any Dividend policy.

Arrears in finalisation of accounts

3.1.22 The Accounts of the companies for every financial year are required to be finalised within six months from the end of the relevant financial year under Sections 166, 210, 230, 619 and 619-B of the Companies Act, 1956. The table below provides the details of progress made by working PSUs in finalisation of Accounts by September 2012.

| Sl. No. | Particulars | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
|---------|---|---------|---------|---------|---------|---------|
| 1. | Number of Working PSUs | 5 | 5 | 5 | 5 | 6 |
| 2. | Number of Accounts finalised during the year | 1 | 6 | 11 | 8 | 1 |
| 3. | Number of Accounts in arrears | 30 | 29 | 27 | 24 | 26 |
| 4. | Average arrears per PSU (3/1) | 6.00 | 5.80 | 5.40 | 4.8 | 4.33 |
| 5. | Number of Working PSUs with arrears in Accounts | 5 | 5 | 5 | 5 | 6 |
| 6. | Extent of arrears in years | 1 to 9 | 1 to 10 | 1 to 10 | 1 to 11 | 1 to 12 |

3.1.23 The reasons for delay in finalisation of Accounts are attributable to (i) lack of required control over the Companies by Government and (ii) abnormal delay in compilation/ approval of the accounts and delayed submission of the same to the Statutory Auditors by the management.

⁵ Turnover of working PSUs as per the latest finalised accounts as of 30 September 2012

3.1.24 The State Government had invested ₹ 21.47 crore (Equity: ₹ 9.80 crore, Loans: ₹ 0.63 crore and Grants: ₹ 11.04 crore in six PSUs) during the years for which Accounts have not been finalised as detailed in **Appendix-3.1.4**. In the absence of Accounts and their subsequent audit, it can not be ensured whether the Income and Expenditure have been properly accounted for and the purpose for which the amount was invested by the State Government has been achieved or not. Thus, the State Government Investment in such PSUs remains 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.

3.1.25 The administrative departments have the responsibility to oversee the activities of these entities and to ensure that the Accounts are finalised and adopted by these PSUs within the prescribed period. Though the Principal Accountant General (PAG) had brought the position of arrears of Accounts to the notice of the concerned Administrative Departments and officials of the Government periodically, no remedial measures were taken. As a result of this the Net Worth of these PSUs could not be assessed in audit. The Principal Accountant General had also addressed the Chief Secretary/Finance Secretary periodically to expedite the clearance of arrears in finalisation of Accounts in a time bound manner.

3.1.26 In view of above state of arrears, it is recommended that the Government should monitor and ensure timely finalisation of Accounts with special focus on liquidation of arrears and compliance of the various provisions of the Companies Act, 1956.

Accounts Comments and Internal Audit

3.1.27 One working company forwarded their four audited Accounts to PAG during the year 2011-12. They were selected for supplementary audit. The audit reports of Statutory Auditors appointed by CAG and the supplementary audit of CAG indicate that the quality of maintenance of Accounts needs to be improved substantially. The details of aggregate money value of comments of Statutory Auditors and CAG are given below.

| Sl. No. | Particulars | 2009-10 | | 2010-11 | | 2011-12 | |
|---------|----------------------------------|-----------------|---------------------|-----------------|---------------------|-----------------|---------------------|
| | | No. of accounts | Amount (₹ in crore) | No. of accounts | Amount (₹ in crore) | No. of accounts | Amount (₹ in crore) |
| 1. | Increase in loss | 6 | 2.05 | 2 | 0.23 | - | - |
| 2. | Decrease in loss | - | - | 4 | 1.83 | 4 | 2.36 |
| 3. | Non-disclosure of material facts | 1 | 15.78 | 1 | 4.55 | - | - |
| 4. | Errors of classification | 2 | 9.48 | 5 | 9.07 | 1 | 0.17 |
| 5. | General | - | - | 8 | 61.25 | 4 | 9.02 |

3.1.28 During the year 2011-12, the Statutory Auditors had given qualified certificates in all four accounts. The compliance of companies with the Accounting Standards (AS) remained poor. There were 16 instances of non-compliance of AS in these four accounts during the year.

3.1.29 Some of the important comments in respect of accounts of the one company are stated below.

Mizoram Handloom and Handicrafts Development Corporation Limited (2000-01 to 2003-04)

- The Company has not disclosed (i) the accounting policy adopted for government grants, including the methods of presentation in the financial statements and (ii) the nature and extent of government grants recognised in the financial statements as required by the Accounting Standard (AS) 12 – Accounting for Government Grants.
- The Accounts of Tribal Handloom Development Project (set up and run by the Company with Grants-in-Aid/Loans from Central and State Governments) were not incorporated in Company's books of accounts and financial statements. This resulted in non-compliance of provisions under Section 209(1) of the Companies Act, 1956.

3.1.30 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 by the CAG to them under Section 619(3)(a) of the Companies Act, 1956 and to identify areas which needed improvement. An illustrative resume of major comments made by the Statutory Auditors on possible improvement in the internal audit/internal control system and other areas in respect of the one company is given below.

| Sl. No. | Nature of comments made by Statutory Auditors | Number of companies where recommendations were made | Reference to serial number of the companies as per Appendix-3.1.2 |
|---------|--|---|---|
| 1. | Deficiencies in system of accounts and financial control | 1 | 5 |
| 2. | Non maintenance of proper Fixed Assets records | 1 | 5 |

Reforms in Power Sector

3.1.31 *A Memorandum of Agreement (MoA) was signed (July 2002)* between the Union Ministry of Power and the State Government with a joint commitment for implementation of reforms programme in power sector with identified milestones. The progress achieved so far in respect of important milestones is stated below.

| Sl. No. | Milestone | Achievement as at March 2012 |
|---------|--|---|
| 1. | Corporatisation of the Electricity Department by 2006-07 | Power & Electricity Department (P&E) is not yet corporatised. |
| 2. | State Government to set up State Electricity Regulatory Commission (SERC) / Joint Electricity Regulatory Commission (JERC) by December 2003 and file tariff petition. | The Governments of Manipur and Mizoram entered (September 2005) into a Memorandum of Agreement (MoA) with Ministry of Power, Government of India authorising the latter to constitute a Joint Electricity Regulatory Commission (JERC) for the States of Manipur and Mizoram under the provisions of Section 83 of the Electricity Act, 2003. Government of India has also committed in the MoA that it would provide financial assistance to JERC during the first five years of its operations subject to the condition that the States of Manipur and Mizoram would complete the process of restructuring and corporatisation of their electricity departments immediately. JERC was constituted in February 2008 with the objective of rationalisation of electricity tariff, advising in matters relating to electricity generation, transmission, distribution and issue of licenses. The Annual Revenue Return (ARR) and Tariff Petition for the year 2009-10 was filed in May 2010. Since the financial year 2009-10 was already over, JERC did not approve the same and directed the Department to file ARR and Tariff Petition for the year 2010-11. Accordingly the ARR and tariff petition for the year 2010-11 was filed in September 2010 and the JERC issued Tariff Order in January 2011 and the tariff was revised with effect from 01 February 2011. The Department filed ARR and Tariff Petition for the year 2012-13 in February 2012. JERC issued Tariff Order in July 2012 and the revised tariff was made effective from 01 August 2012. |
| 3. | State Government will ensure timely payment of subsidies required in pursuance of orders on the tariff determined by JERC | The State Government had not released subsidy amounting to ₹ 115 crore and ₹ 187.66 crore payable by it as per Tariff Orders for the years 2010-11 and 2012-13 respectively issued by JERC. |
| 4. | 100 per cent electrification of villages by 2003 | 661 out of 707 villages had been electrified by 31 March 2012. |
| 5. | Suitable policy provisions to be formulated by the State Government by July 2004 for handing over parts of distribution system on management contract or on lease to local bodies. | Policy for handing over parts of distribution system on management contract or on lease to local bodies was yet (March 2012) to be formulated by the State Government. |
| 6. | Setting up of computerised billing centres by July 2003. | Computerised billing systems have been set up in 7 divisions. |

3.1.32 The operational performance of the Power and Electricity Department for the last three years upto 2011-12 is given in Appendix-3.1.5.

The total Expenditure on power sold during the three years 2009-10, 2010-11 and 2011-12 was ₹ 198.43 crore, ₹ 230.79 and ₹ 370.26 crore as against the Revenue of ₹ 67.62 crore, ₹ 72.36 crore and ₹ 112.06 respectively.

The percentage of transmission and distribution (T&D) losses were as high as 36.99 *per cent* in 2009-10, 27.24 *per cent* in 2010-11 and 31.74 *per cent* in 2011-12 as against the norm of 15.50 *per cent* fixed by the Central Electricity Authority. During the year 2011-12, the excess T&D Losses over the norms were 75.26 million units costing ₹ 26.12 crore (worked out at average revenue realisation rate of ₹ 3.47 per unit for the year 2011-12).

State Trading Scheme

3.1.33 During the year 2011-12, no Proforma Accounts relating to the arrear years were finalised by the Department which are in arrears from the year 2004-05 onwards.

Mizoram State Transport

3.1.34 The operational performance of Mizoram State Transport (MST) for the three years ended 31 March 2012 is given in **Appendix-3.1.6**.

3.2 Performance Audit on Power Transmission Activities of Power and Electricity Department, Government of Mizoram

Highlights

The Power and Electricity Department is responsible for planning and development of the intra-state transmission system. Assessment of demand is an important pre-requisite for planning capacity addition. The Department had formulated five year plans (2007-08 to 2011-12) for incorporation in the national five year plan. The Department had not made annual phasing for the projects included in the five year plans. Against six projects planned in the five year plans, the Department undertook execution of two projects only and the remaining four projects had not been considered for execution. Out of two planned projects undertaken by the Department, only one project (132/33 KV Sub-Station Melriat) had been completed in March 2012.

The execution of transmission projects by the Power and Electricity Department had several deficiencies relating to delays, cost over run, undue benefit to contractor and procurement of transformer at higher cost. Performance Audit on Power Transmission Activities of Power and Electricity Department brought out the following significant findings:

Failure of the Department to properly plan construction of 132 KV Central Sub-Station at Melriat resulted in avoidable delays in its commissioning.

(Paragraph 3.2.12.1)

There was controllable delay in construction of 132 KV Single Circuit Transmission Line from Khawzawl to Champhai.

(Paragraph 3.2.12.2)

There was a cost over run of ₹ 1.23 crore on construction of 2nd Circuit 132 KV line between PGCIL's 132 KV Luanmual Sub-Station to the Department's 132 KV Zuangtui Sub-Station.

(Paragraph 3.2.12.3)

There was a delay in construction of (i) 132 KV Luangmual - Melriat Line and 132 KV Bay at 132 KV Sub-Station, Luangmual (ii) 132 KV Central Sub-Station at Melriat due to non-securing of Right of Way for the projects.

(Paragraph 3.2.12.5)

Installation of Optical Ground Wire in 132 KV Line between Aizawl and Lunglei - Extension of Contract period without levying Liquidated Damages resulted in undue benefit of ₹ 18.81 lakh to the Contractor.

(Paragraph 3.2.12.6)

Due to overloading of the Power Transformers of Luangmual and Zuangtui Sub-Stations, the Department was resorting to frequent load shedding in Aizawl Load Centre.

(Paragraph 3.2.14)

Failure to adhere to the tender procedures resulted in procurement of 12.5 MVA, 132/33 KV Power Transformers at higher cost of ₹ 3.72 crore.

(Paragraph 3.2.32)

Introduction

3.2.1 With a view to supply reliable and quality power to all by 2012, the Government of India (GoI) prepared the National Electricity Policy (NEP) in February 2005 which *stated that the Transmission System required adequate and timely investment besides efficient and coordinated action to develop a robust and integrated power system for the country. It also, inter-alia* recognised the need for development of National and State Grid with the coordination of Central/State Transmission Utilities. Transmission of electricity and Grid operations in Mizoram are managed and controlled by Power and Electricity Department, Government of Mizoram which is mandated to provide an efficient, adequate and properly coordinated Grid management and transmission of energy.

3.2.2 The Power and Electricity Department is responsible for planning and development of the intra-state transmission system. The Department is under the Administrative control of Commissioner/Secretary, Government of Mizoram and the Engineer-in-Chief is the functional head of the Department. During 2007-08, 356.28 MUs of energy was transmitted by the Department which increased to 456.80 MUs in 2011-12, *i.e.* an increase of 28.21 *per cent* during 2007-12. As on 31 March 2012 the Department had transmission network of 728.960 CKM and seven Extra High Tension (EHT) Sub-Stations (SSs) with installed capacity of 128.10 MVA. The turnover of the Department was ₹ 109.73 crore in 2011-12, which was equal to 1.57 *per cent* of State Gross Domestic Product (₹ 6,991.40 crore). It employed 4,575 employees as on 31 March 2012.

Performance Audits on (i) Accelerated Power Development & Reforms Programme and (ii) Power Distribution Activities were included in the Reports of the Comptroller

and Auditor General of India, Government of Mizoram for the years ended 31 March 2009 and 31 March 2011 respectively. The Reports were yet to be discussed by CoPU (September 2012).

Scope of Audit

3.2.3 The present Performance Audit conducted during April 2012 to September 2012 covers performance of the Department during 2007-08 to 2011-12. Audit examination involved scrutiny of records at the office of the Engineer-in-Chief, office of the Chief Engineer (System Operation), office of the Chief Engineer (Distribution), State Load Despatch Centre and six⁶ out of the 20 Divisions where execution of major transmission project(s) were completed/ongoing during the review period.

The Department constructed one Sub-Station⁷ (25 MVA) and four Transmission Lines (168.490 CKM) during the review period and these were examined besides other major ongoing construction works.

The methodology adopted for attaining audit objectives with reference to audit criteria consisted of explaining audit objectives to top management, scrutiny of records at Head Office (Office of the Engineer-in-Chief) and selected units, interaction with the auditee personnel, analysis of data with reference to audit criteria, raising of audit queries, discussion of audit findings with the Management and issue of draft review to the Management/Government for comments.

Audit Objectives

3.2.4 The objectives of the performance audit were to assess whether:

- ❖ Perspective Plan was prepared in accordance with the guidelines of the National Electricity Policy/Plan and Joint Electricity Regulatory Commission (JERC) for the states of Manipur and Mizoram and assessment of impact of failure to plan, if any;
- ❖ Operation and maintenance of transmission system was carried out in an economical, efficient and effective manner;
- ❖ The transmission system was developed and commissioned in an economical, efficient and effective manner;
- ❖ Disaster Management System was set up to safeguard its operations against unforeseen disruptions;
- ❖ Effective failure analysis system was set up;
- ❖ Efficient and effective system of Procurement of material and inventory control mechanism;

⁶ Generation Division at Aizawl, Kolasib Power Division, Power Project Division at Champhai, Khawzawl Power Division and Construction Division at Aizawl, SLDC Division

⁷ Remains un-commissioned as construction of the incoming transmission line was not complete

- ❖ Efficient and effective energy conservation measures were undertaken in line with the National Electricity Plan (NEP) and establishment of Energy Audit System; and
- ❖ There is a monitoring system in place to - review existing/ongoing projects, take corrective measures to overcome deficiencies identified respond promptly and adequately to Audit/Internal audit observations.

Audit Criteria

3.2.5 The audit criteria adopted for assessing the achievement of the audit objectives were derived from the following sources:

- ❖ Provisions of National Electricity Policy /Plan and National Tariff Policy;
- ❖ Perspective Plan and Project Reports of the Department;
- ❖ Standard procedures for award of contracts with reference to principles of economy, efficiency, effectiveness, equity and ethics;
- ❖ ARR filed with SERC for tariff fixation, Circulars, Manuals and MIS reports;
- ❖ Manual of Transmission Planning Criteria (MTPC);
- ❖ Code of Technical Interface (CTI)/Grid Code consisting of planning, operation, connection codes;
- ❖ Directions from State Government /Ministry of Power (MoP);
- ❖ Norms/Guidelines issued by JERC/Central Electricity Authority (CEA);
- ❖ Report of the Committee constituted by the Ministry of Power recommending the “Best Practices in Transmission”
- ❖ Report of the Task force constituted by the Ministry of Power to analyse critical elements in transmission project implementation; and
- ❖ Reports of Regional Power Committee (RPC)/Regional Load Dispatch Centre (RLDC).

Audit Methodology

3.2.6 Audit followed the following mix of methodologies:

- ❖ Review of Agenda notes and minutes of RPC/RLDC, annual reports, accounts and regional energy accounts (REA);
- ❖ Scrutiny of loan files, physical and financial progress reports;
- ❖ Analysis of data from annual budgets and physical as well as financial progress with completion reports;
- ❖ Tariff fixed by Joint Electricity Regulatory Commissions (JERC);
- ❖ Scrutiny of records relating to project execution, procurement receipt of funds and expenditure; and

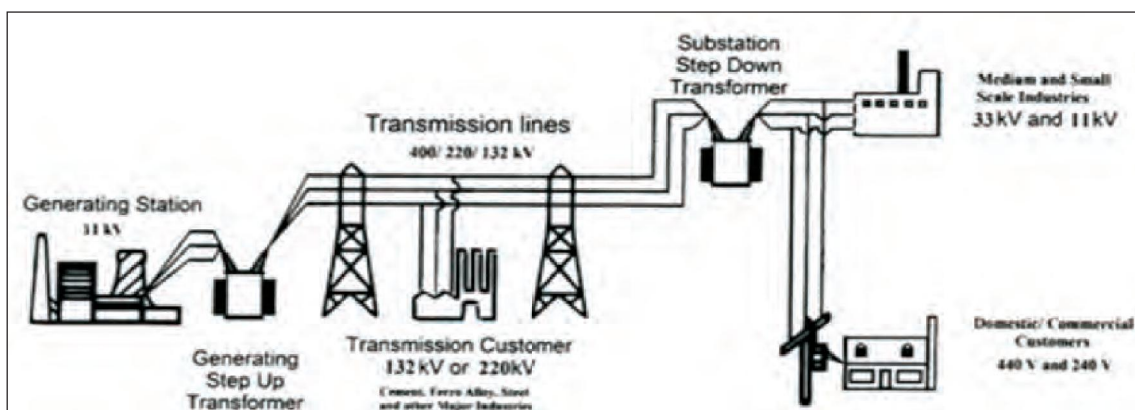
- ❖ Interaction with the Management during entry and exit conference.

Brief description of transmission process

3.2.7 Transmission of electricity is defined as bulk transfer of power over long distances at high voltages, generally at 132 KV and above. Electric power generated at relatively low voltages in power plants is stepped up to high voltage power before it is transmitted to reduce the loss in transmission and to increase efficiency in the Grid. Sub-Stations are facilities within the high voltage electric system used for stepping-up/ stepping down voltages from one level to another, connecting electric systems and switching equipment in and out of the system. The step up transmission Sub-Stations at the generating stations use transformers to increase the voltages for transmission over long distances.

Transmission lines carry high voltage electric power. The step down transmission Sub-Stations thereafter decreases voltages to sub transmission voltage levels for distribution to consumers. The distribution system includes lines, poles, transformers and other equipment needed to deliver electricity at specific voltages.

Electrical energy cannot be stored; hence generation must be matched to need. Therefore, every transmission system requires a sophisticated system of control called Grid management to ensure balancing of power generation closely with demand. A pictorial representation of the transmission process is given below:



Audit Findings

3.2.8 We explained the audit objectives to the Department during an ‘Entry Conference’ held on 24 April 2012. Subsequently, audit findings were reported to the Department and the State Government in October 2012 and discussed in an ‘Exit Conference’ held on 5 December 2012. The Exit Conference was attended by Engineer-in-Chief, Superintending Engineer (Planning), Joint Director (Accounts) and Executive Engineer (Design and Monitoring). The Department/ State Government replied to audit findings in November 2012. The views expressed by them

have been considered while finalising this Performance Audit. The audit findings are discussed in subsequent paragraphs.

Planning and Development

National Electricity Policy/Plan

3.2.9 The Central Transmission Utility (CTU) and State Transmission Utilities (STUs) have the key responsibility of network planning and development based on the National Electricity Plan in coordination with all concerned agencies. At the end of 10th Plan (March 2007), the transmission system in the country at 765/HVDC/400/230/220/KV stood at 1.98 lakh circuit kilometers (CKM) of transmission lines which was planned to be increased to 2.93 lakh CKM by end of 11th Plan *i.e.*, March 2012. The National Electricity Plan assessed the total inter-regional transmission capacity at the end of 2006-07 as 14,100 MW and further planned to add 23,600 MW in 11th plan bringing the total inter-regional capacity to 37,700 MW.

Similarly, the Department's transmission network at the beginning of 2007-08 consisted of seven Extra High Tension (EHT) Sub-Stations with a transmission capacity of 103.10 MVA and 560.470 CKM of EHT transmission lines. The transmission network as on 31 March 2012 consisted of seven EHT Sub-Stations with a transformation capacity of 128.10 MVA and 728.960 CKM of EHT transmission lines.

The Department is responsible for planning and development of the intra-state transmission system. Assessment of demand is an important pre-requisite for planning capacity addition. The department had formulated five year plan (2007-08 to 2011-12) for incorporation in the national five year plan. The five year plan envisaged completion of six projects including construction of five transmission lines and relocation of one sub-station. However, the Department had not made annual phasing for the projects included in the five year plans. Even the five year plans formulated by the Department were not implemented. Against six projects planned in the five year plan for 2007-08 to 2011-12, the Department undertook execution of two projects only and the remaining four projects had not been considered for execution. Out of two planned projects undertaken by the Department, only one project (132/33 KV Sub-Station Melriat) had been completed in March 2012. However, pending completion of incoming line, this project had not been commissioned. Reasons of deviations from the plan were not found on record which indicated that the five year plan was framed arbitrarily without regard to actual requirement of in state. The Department had also not formulated any perspective plans. Joint Electricity Regulatory Commission for the States of Manipur and Mizoram constituted in January 2005 had also not prepared any Electricity Plan for the constituent States.

Transmission network and its growth

3.2.10 The transmission capacity of the Department at EHT level during 200708 to 2011-12 is given below:

Table-3.2.1

| Sl. No. | Description | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | Total |
|--|---|---------|---------|---------|---------|---------|---------|
| A. Number of Sub-Stations (Numbers) | | | | | | | |
| 1. | At the beginning of the year | 7 | 7 | 7 | 7 | 7 | 7 |
| 2. | Additions planned for the year* | - | - | - | - | - | - |
| 3. | Added during the year** | - | - | - | - | - | - |
| 4. | Total sub stations at the end of the year (1+3) | 7 | 7 | 7 | 7 | 7 | 7 |
| 5. | Shortfall in additions (2-3) | | | | | | |
| B. Transformers capacity (MVA) | | | | | | | |
| 1. | Capacity at the beginning of the year | 103.10 | 103.10 | 103.10 | 115.60 | 128.10 | 128.10 |
| 2. | Additions/ augmentation planned for the year | | | 12.50 | 12.50 | | |
| 3. | Capacity added during the year | | | 12.50 | 12.50 | | |
| 4. | Capacity at the end of the year (1+3) | 103.10 | 103.10 | 115.60 | 128.10 | 128.10 | 128.10 |
| 5. | Shortfall in additions/ augmentation | | | | | | |
| C. Transmission lines (CKM) | | | | | | | |
| 1. | At the beginning of the year | 560.470 | 608.360 | 638.370 | 638.370 | 638.370 | 560.470 |
| 2. | Additions planned for the year* | - | - | - | - | - | - |
| 3. | Added during the year | 47.890 | 30.010 | - | - | 90.590 | 168.490 |
| 4. | Total lines at the end of the year (1+3) | 608.360 | 638.370 | 638.370 | 638.370 | 728.960 | 728.960 |
| 5. | Shortfall in additions (2-3) | - | - | - | - | - | - |

** The Department did not formulate Annual Plans. However during 2009-10 and 2010-11, the Department planned for augmentation of 12.50 MVA of transformation capacity

* 132/33 KV Central Sub-Station at Melriat with a transformation capacity of 25 MVA has not been considered as it had not been commissioned

Project management of transmission system

3.2.11 A transmission project involves various activities from concept to commissioning. Major activities in a transmission project are (i) Project formulation, appraisal and approval phase and (ii) Project Execution Phase. For reduction in project implementation period, the Ministry of Power, Government of India constituted a Task Force on transmission projects (February 2005) with a view to:

- ❖ analyse the critical elements in transmission project implementation,
- ❖ implementation from the best practices of CTU and STUs, and
- ❖ suggest a model transmission project schedule for 24 months' duration.

The task force suggested and recommended (July 2005) the following remedial actions to accelerate the completion of Transmission systems.

- ❖ Undertake various preparatory activities such as surveys, design & testing, processing for forest & other statutory clearances, tendering activities *etc.* in advance/parallel to project appraisal and approval phase and go ahead with construction activities once Transmission Line Project sanction/approval is received;

- ❖ Break-down the transmission projects into clearly defined packages such that the packages can be procured & implemented requiring least coordination & interfacing and at same time it attracts competition facilitating cost effective procurement; and
- ❖ Standardise designs of tower fabrication so that 6 to 12 months can be saved in project execution.

3.2.12 The Department did not follow the above recommendations of the Task Force which attributed to time and cost over runs in all the five projects (one Sub-Station and four Transmission Lines) undertaken by the Department during 2007-12 (**Appendix-3.2.1**).

The main reasons attributed to these delays were delay in acquisition of land and handing over of site/right of way problems a overlapping of works, diversion of funds, advance procurement of materials, non-compliance of guidelines prescribed by the funding agencies, lack of proper planning and coordination in formulation of projects and their timely implementation as discussed in the following paragraphs:

Failure of the Department to properly plan construction of 132 KV Central Sub-Station at Melriat resulted in avoidable delays in its commissioning.

3.2.12.1 North Eastern Council (NEC) accorded Administrative Approval for construction of 2 x 12.5 MVA, 132/33 KV Sub-Station at Melriat (Aizawl) at an estimated cost of ₹ 13.41 crore (March 2006). 90 *per cent* of the Project Cost (₹ 12.07 crore) was to be financed by NEC as Grant and the balance 10 *per cent* was required to be met by the State Government. However, the State Government enhanced its share of finance to ₹ 2.75 crore by according its approval (February 2007) for the project at revised estimated cost of ₹ 14.82 crore.

The Department was required to implement the scheme within 36 months from the date of receipt of 1st installment of funds from NEC *i.e.*, by 23-06-2009.

NEC released its full share (June 2006 - June 2011) where as the State Government had so far released only ₹ 1.34 crore (48.73 *per cent*). Construction of the Sub-Station was taken up departmentally and executed at a cost of ₹ 15.54 crore in March 2012. Additional requirement of ₹ 2.13 crore⁸ was met from funds intended for construction of two 132 KV outgoing bays in the same Sub-Station. It was observed that execution of the project was delayed by more than 30 months due to failure of the Department/Government to undertake various preparatory activities in advance or parallel as detailed below:

- Approach road to the Sub-Station for facilitating transportation of Power Transformers was widened after a delay of about 12 months by the department despite repeated requests by the supplier for early completion of the widening of approach road.
- The department did not have any backup arrangements for emergency situations like failures of existing transformers in other Sub-Stations. Therefore it was forced to divert a Power Transformer intended for installation in this project to Khawiva Sub-Station for emergency replacement which in turn delayed the execution of the project.

⁸ ₹ 15.54 crore - ₹ 12.07 crore - ₹ 1.34 crore

- The State Government did not release matching contribution for this project in accordance with the guidelines of the scheme which resulted in funds constraints and consequent delays in execution of the project.
- The Department failed to properly plan the work of construction of Melriat Sub-Station and synchronise it with commissioning of the incoming 132 KV Kolasib-Melriat Line as it had revised its earlier plan and has now restricted the line upto Sihmui Sub-Station which is around *one-thirds* distance short of original plan. Moreover, the alternative incoming line to the Melriat Sub-station viz. Melriat-Luangmual line was also incomplete due to failure of the Department to secure 'right of way' for the line. Thus, even after completion of Melriat Sub-Station in March 2012, the Department had not been able to commission it so far (December 2012).

The Department replied that the work was delayed due to delay in land acquisition process and due to non-release of funds by the NEC and the Government.

The reply of the Department is not tenable since the land acquisition process, approach road for the station, maintaining of emergency back up for failed transformers etc should have been planned in advance.

Controllable delay in construction of 132 KV Single Circuit Transmission Line from Khawzawl to Champhai

3.2.12.2 Ministry for Development of North Eastern Region (DoNER), Government of India accorded (December 2006) Administrative Approval for sanction of ₹ 5.31 crore (90 *per cent* of the estimated cost) as Central Financial Assistance (CPA) under Non-Lapsable Central Pool of Resources (NLCPR) for the project 'Construction of 132 KV Single Circuit Line from Khawzawl to Champhai' at an estimated cost of ₹ 5.90 crore with the targeted date of completion as December 2009 and released first instalment immediately. However, the Department submitted revised estimate of ₹ 7.64 crore which was approved by the State Government in November 2010. Subsequently, the project was completed in June 2011.

Audit observed that the Department's failure to adhere to the recommendations of the task force and NLCPR guidelines had contributed to the delay in completion of the project as detailed below:

- Tenders were finalised after 13 months of sanction of the project and release of first instalment of project fund by DoNER.
- Instead of assigning the entire work on turnkey basis as per NLCPR guidelines, activities like Survey, Benching and Procurement of Conductor were undertaken departmentally before assigning the remaining works to the Contractors on turnkey basis. This contributed to overall delay in the project.
- Non-standardisation of tower design had resulted in a delay of 14 months for approval of the tower design for this project.

- Lack of advance planning resulted in transfer of work from Khawzawl Power division to Champhai Power Project Division and consequent delays in execution of the project.

The Department in their reply (November 2012) stated that the Department initially contemplated to do the work itself and therefore the work was delayed. However, the Department admitted the delays in tendering except delay due to transfer of work from Khawzawl Division.

The reply of the Department indicated lack of proper planning before taking up the project.

Cost over-run on construction of 2nd Circuit 132 KV line between PGCIL's 132 KV Luangmual Sub-Station to the Department's 132 KV Zuangtui Sub-Station

3.2.12.3 To overcome shortfall in carrying capacity of Single Circuit 132 KV Line on Double Circuit Towers connecting PGCIL's (Power Grid Corporation of India Limited) Luangmual Sub-Station and Departments Zuangtui Sub-Station resulting in power shortages in the state, the Department planned to string the second line. The components of the work were (i) Construction of 2nd Circuit 132 KV Line between PGCIL's 132 KV Luangmual Sub-Station to Department's 132 KV Zuangtui Sub-Station with LILO at Department's 132 KV Luangmual Sub-Station and (ii) Construction of Outgoing Bay at PGCIL's 132 KV Luangmual Sub-Station. Accordingly, the Department submitted (October 2002) a proposal to North Eastern Council (NEC) seeking financial assistance for the project with an estimated cost of ₹ 1.02 crore.

NEC accorded (November 2003) Administrative Approval for the project at ₹ 1.01 crore (90 per cent as Grant and 10 per cent as Loan). The Administrative Approval accorded by NEC stipulated completion of the project within 12 months from the date of release of the 1st installment. NEC released the first installment of ₹ 50 lakh in December 2003 and second installment of ₹ 45.90 lakh in February 2006.

The Department entrusted (June 2005) the entire work on turnkey basis to PGCIL at an estimated cost of ₹ 2.18 crore which in turn revised the project cost to ₹ 3.44 crore. Owing to insufficient funds, the Department requested (October 2007) PGCIL to limit the scope of the work to Construction of Outgoing Bay at PGCIL's Luangmual Sub-Station. PGCIL completed the work and commissioned the bay in May 2009 at a cost of ₹ 1.69 crore and after a delay of 52 months and cost over-run of ₹ 1.23 crore⁹.

It was observed that in spite of shortfall in carrying capacity of the line and consequent power shortages in the state and clear conditions of the NEC administrative approval entailing completion of the work in 12 months time, the department delayed award of work to PGCIL by two and a half years. Owing to this abnormal delay, the project cost had escalated from ₹ 0.46 crore to ₹ 1.69 crore. Due to deficiency of funds the department was forced to limit the scope of the project work to construction of outgoing bay in PGCILs Sub-Station only

⁹ ₹ 1.23 crore (₹ 1.69 crore - ₹ 0.46 crore)

and crucial component of the work *viz.* construction of line between PGCIL's Languamal Sub-Station and Departments Sub-Station was shelved.

Thus, due to improper planning for executing the project, the main objective of the project to improve carrying capacity of the line and relieve the consumers of power shortages was defeated.

The Department/Government in its reply (November 2012) stated that outgoing Bay constructed at PGCIL's Luangmual Sub-Station was being used for feeding the Department's 132 KV Sub-Station at Luangmual. The reply of the management is not tenable as the outgoing bay cannot replace second circuit line between PGCILs and Department's Sub-Station. Moreover, the Luangmual Sub-Station was receiving power supply from PGCIL's Luangmual Sub-Station even before construction of the new Outgoing Bay and construction of the new outgoing Bay had not improved actual transmission.

Lack of proper planning and coordination in the project for construction of 132 KV Line from Kolasib to Aizawl (Melriat) with LILO of one Circuit at Aizawl (Zuangtui) 132 KV Sub-Station.

3.2.12.4 Based on a proposal submitted (September 2005) by the Department for construction of '132 KV Single Circuit Line of 90 KM length on Double Circuit tower from Kolasib to Melriat with Loop In Loop Out (LILO) at Zuangtui 132 KV Sub-Station and 132 KV Line Bays at Kolasib and Melriat 132 KV Sub-Stations' with an estimated cost of ₹ 24.97 crore, Ministry of Development of North Eastern Region (DoNER) accorded (December 2005) Administrative Approval at the revised estimated cost of ₹ 21.51 crore and sanctioned financial assistance of ₹ 19.36 crore. The remaining portion of ₹ 2.15 crore was to be contributed by the State Government. The project was aimed at (i) Evacuation of power generated by Bairabi Thermal Project (22.92 MW) and Bairabi HEP (80 MW) to be constructed and (ii) to enable the State to draw power directly from Assam as and when power is not available either from Manipur or Tripura. The project was required to be completed within 36 months from the date of Administrative Approval *i.e.*, by December 2008. DoNER and the State Government have released ₹ 17.04 crore and ₹ 1.89 crore respectively so far (December 2012).

The Department issued (December 2006) Letter of Intent to a contractor for construction of the Line at a cost of ₹ 28.66 crore and entered into (January 2007) an agreement with them. As of 30 June 2012, expenditure on the project was ₹ 18.93 crore (73 *per cent*). In this connection audit observed that:

- The Department without properly assessing the feasibility of the project issued work order at a cost of ₹ 28.66 crore even though the project was sanctioned at a cost of ₹ 21.51 crore only.
- The department frequently changed the scope of the work due to its failure to appraise the project properly. Due to funds constraints and cost over runs, the department was forced to redesign the tower structures and foundations and curtail the line length by 31 KMs.

By redesigning the project, estimated cost was reduced by ₹ 2.90 crore. Considerable volume of foundation work was done and equipments and material for the whole line were procured before curtailing the line length, rendering the expenditure of ₹ 1.80 crore on the equipment and material for reduced line length as surplus.

- The Department failed to finalise the contract within a short time, after receiving administrative approval, delayed approval of survey report and tower designs and did not undertake preparatory activities for avoiding delays in securing Right of Way for the lines and frequently changed the line routes during the course of work. This had resulted in considerable delay in the execution of the work.
- The construction of the line had not been completed yet (December 2012) in spite of a delay of more than five years and after incurring an expenditure of ₹ 18.93 crore and therefore the state had been deprived of the envisaged benefits of drawl of electricity directly from Assam.

Thus, lack of proper planning and coordination in execution of the project had resulted in delay in the execution of the work and consequent cost and time over runs.

The Department in their reply stated (November 2012) that on completion of the proposed Luangmual - Sihhmui and ongoing Melriat - Luangmual Lines, Melriat Sub-Station and Kolasib Sub-Station could be connected. It was also stated that the surplus Tower materials, Conductor and Ground Wire will be used for the proposed Luangmual – Sihhmui Line, LILO at Zuangtui in Zuangtui - W. Phaileng 132 KV Line LILO at Sihhmui and 132 KV Line Bay at Melriat for Melriat – Lunglei 132 KV Line.

The reply of the Department was not acceptable as the fact remained that the commissioning of the Sub-Station had been considerably delayed. Further in a scenario where the department had funds constraints in execution of its projects, accumulation of surplus equipment/material and making wasteful expenditure was not justified.

Delay in construction of (i) 132 KV Luangmual – Melriat Line and 132 KV Bay at 132 KV Sub-Station, Luangmual (ii) 132 KV Central Sub-Station at Melriat due to non-securing of Right of Way for the projects.

3.2.12.5 The North Eastern Council (NEC) accorded (January 2009) Administrative Approval for ‘Construction of 132 KV S/C Transmission Line (14.5 CKM) from Melriat Sub-Station to Luangmual and 132 KV Bay at Luangmual, Aizawl’ at an estimated cost of ₹ 4.99 crore (90 per cent Grant and 10 per cent contribution from the State Government). NEC and State Government have so far (September 2012) released ₹ 4.10 crore and ₹ 45.55 lakh respectively. As per clause (i) of the terms and conditions included in NEC’s Administrative Approval, the work should have been completed within 36 months from the date of receipt of first installment of funds from NEC i.e., by January 2012.

The Department placed Work Order on a contractor for (i) Survey, Check Survey, Preparation of Tower Schedules & Profiles, (ii) Manufacture, testing, supply & delivery of towers and

(iii) Erection, for ₹ 2.07 crore in November 2009. The supply of equipment and material was required to be made by the Department. Agreement signed (March 2010) with the Contractors stipulated that the work should be completed within 12 months from the date of signing of agreement *i.e.*, by March 2011.

Audit observed that progress of work (September 2012) was very poor (40 *per cent*) and tower erection was complete only in 19 locations out of 99 locations. The Department extended the scheduled date for completion of the work to 30 June 2013 or 12 months from the date of settlement of land acquisition. The Department had incurred an expenditure of ₹ 4.28 crore upto May 2012 and the work on construction of 132 KV Bay at Luangmual had not even commenced. In view of funds utilisation of about 86 *per cent* without matching physical progress, completion of the project within extended period also seemed doubtful.

It was also observed that the Department included responsibility for arranging the Right of Way (ROW) in the Contractor's scope of work. However, due to contractor's inability to arrange for the ROW, the Department had to initiate (November 2011) action on its own for securing ROW for the project. The Department had not secured ROW yet (December 2012). Thus, the Department's failure to initiate action for securing ROW immediately after getting approval for the project resulted in considerable delays in the project.

The Department in their reply stated that the due to opposition of land owners for erection of towers in their land the work was delayed.

The reply is not acceptable as the opposition of land owners was a common phenomenon and therefore it should have planned well in advance to avoid delays in securing ROW for the project.

Installation of Optical Ground Wire in 132 KV Line between Aizawl and Lunglei—Extension of Contract period without levying Liquidated Damages resulting in undue benefit to the Contractor - ₹ 18.81 lakh

3.2.12.6 The Department submitted a proposal for the project 'Installation of Optical Ground Wire (OPGW) in the 132 KV Single Circuit Line between Aizawl and Lunglei' for replacing the existing 7/3.15 MM Size Standard Galvanized Ground Wire to the State Planning Board in January 2010. It was expected that OPGW, apart from carrying out the functions of normal ground wire, would also be useful (i) in reducing duration of power cuts due to communication problems, (ii) for fast and error free data transmission between Sub-Stations facilitating Supervisory Control and Data Acquisitions (SCADA), Energy Accounting, Control *etc.* and (iii) to function as a long distance communication backbone facilitating video transmission, broad band services and computer data communication.

Administrative Approval for the project at an estimated cost of ₹ 7.19 crore for implementation of the Project under Additional Central Assistance (ACA) was accorded by the State Government in March 2010. After taking approval of State Purchase Advisory Board, the Department issued (July 2010) Letter of Intent (LoI) M/s KEC International

Limited, Gurgaon, a contractor, for design, manufacture, testing, supply, installation and commissioning of OPGW over the 132 KV Line between Aizawl Sub-Station and Lunglei Sub-Station *via* Serchhip Sub-Station and enabling fibre optic communication link between the three Sub-Stations. Subsequently, contract agreement was signed (December 2010) at a contract price of ₹ 4.18 crore.

As per the agreement, contractor was required to complete supply of OPGW, accessories and equipments within three months from the date of signing agreement (by 27 March 2011) and erection/installation within seven months (by 27 July 2011). Delay in supply of the equipments entailed levy of maximum liquidated damages of 10 *per cent* of the contract price @ 0.5 *per cent* for each calendar week of delay. The contractor completed the supply work on 4 November 2011 *i.e.* after a delay of nine weeks whereas the erection work was not complete yet (December 2012).

Audit observed that the Department granted extension of period for supply of materials twice (upto May 2011 and upto 31 August 2011) without levy of liquidated damages. Due to the lenient view taken by the Department, the contractor further delayed the work upto 31 August 2011. Thus, the Department failed to levy Liquidated damages of ₹ 18.81 lakh on the defaulting contractor.

In reply, the Department stated (November 2012) that the causes of delay stated by the Contractors were under scrutiny and liquidated damages would be recovered from the Contractors while releasing further payments.

3.2.12.7 Delay in shifting of 132/33 KV Sub-Station at Zuangtui

Zuangtui Sub-Station was strategically located and catered to two-thirds of the State's requirement. After the hill slides in Zuangtui including massive ones during 1993 and 2003, the Department contemplated shifting of the 132 KV Sub-Station, Zuangtui to another safer site.

Accordingly, the Department after reviewing earlier proposals, finally proposed (2009) construction of new 132/33 KV x 2 x 12.5 MVA Sub-Station at Hangi Lunglen Tlang to take over functions of outgoing Sub-Station at an estimated cost of ₹ 19.73 crore and submitted the same for Government in 2009. NEC accorded (August 2012) administrative approval for the project at an estimated cost of ₹ 20.77 crore.

Audit observed that the even after ever-increasing deteriorating conditions of the Luangtui Sub-Station and possibility of huge problems to the state on account of hill slides/sinking of land near the Sub-Station, the Department had not displayed urgency in submitting the proposals to the Government.

The Department in their reply confirmed accord of the Administrative Approval for the project. However, the reply was silent on the unjustified delay in shifting of existing Sub-Station/ construction of new one.

Performance of transmission system

3.2.13 The performance of the Department depends on efficient maintenance of its Extra High Tension (EHT) transmission network for supply of quality power with minimum interruptions. In the course of operation of sub-stations and lines, the supply-demand profile within the constituent sub-systems is identified and system improvement schemes are undertaken to reduce line losses and ensure reliability of power by improving voltage profile. These schemes are for augmentation of existing transformer capacity, installation of additional transformers, laying of additional lines and installation of capacitor banks. The performance of the Department with regard to operation and maintenance of the system is discussed in the succeeding paragraphs.

Transmission capacity

3.2.14 The Department in order to evacuate the power from the supply points of outside sources/ generating stations and to meet the load growth in different areas of the state owns and maintains lines and Sub-Stations at 132 KV. A Transformer converts AC voltage and current to a different voltage and current at a very high efficiency. The voltage levels can be stepped up or down to obtain an increase or decrease of AC voltage with minimum loss in the process. The transmission capacity (132 KV) created *vis-à-vis* the transmitted capacity (peak demand met) at the end of each year by the Department during the five years ending March 2012 was as follows:

Table-3.2.2

| Transmission Capacity (in MVA) | | | | |
|--------------------------------|-----------|--|---|------------------------------------|
| Year | Installed | After leaving 30 per cent towards margin | Peak demand ¹⁰ including non-coincident demand | Excess(+)/ shortage(-) (3-4) |
| 1 | 2 | 3 | 4 | 5 |
| 2007-08 | 103.10 | 72.17 | 85 | (-) 12.83 |
| 2008-09 | 103.10 | 72.17 | 92 | (-) 19.83 |
| 2009-10 | 115.60 | 80.92 | 99 | (-) 18.08 |
| 2010-11 | 128.10 | 89.67 | 107 | (-) 17.33 |
| 2011-12 | 128.10 | 89.67 | 115 | (-) 25.33 |

From the above table it could be observed that there was an increasing trend in shortfall in the overall transmission capacity since 2008-09. The shortfall at the end of five year period was 25.33 MVA.

Details showing latest position (as on 31 March 2012) such as Load Centre wise availability of Transformation Capacity, Maximum, Minimum & Average Demand reported, Un-restricted and Essential Load are given in the **Appendix-3.2.2**. It was seen that there was a wide gap (28.30 MVA equivalent to 41.80 per cent of the requirement) between requirement and

¹⁰ Un-restricted demand of the State

availability of Transformation Capacity in Aizawl Load Centre/Area. In other centres *viz.*, Kolasib, Serchhip and Lunglei there was no shortage in Transformation Capacity.

During the last five years ending 2011-12, addition to transformer capacity in the State was only 25 MVA. Up-gradation of 33/11 KV Sub-Station to 132/33 KV (with transformation capacity of 12.5 MVA) at Khawzawl and Installation of Additional 12.5 MVA, 132/33 KV Power Transformer in Luangmual Sub-Station was delayed beyond the scheduled commissioning dates.

Due to overloading of the Power Transformers of Luangmual and Zuangtui Sub-Stations, the Department was resorting to frequent load shedding in Aizawl Load Centre.

In their reply (November 2012) the Department stated that with commissioning of Sub-Station at Melriat and installation of additional transformer at Luangmual Sub-station frequent load shedding at Aizawl Load Centre/ Area was likely to be avoided.

Sub-stations

Adequacy of Sub-stations

3.2.15 Manual on Transmission Planning Criteria (MTPC) stipulates the permissible maximum capacity of 150 MVA for 132 KV Sub-Stations and every Sub-Station of capacity of 132 KV should have at least two transformers. Scrutiny of the maximum capacity levels of Sub-Stations revealed that none of the seven 132 KV Sub-Stations exceeded the permitted levels. However it was observed that Saitual and Bairabi Sub-Stations of the Department have only one (Step down) transformer each.

The Transmission Planning and Security Standards indicated that the size and number of transformers in the Sub-Stations shall be planned in such a way that in the event of outage of any single transformer the remaining transformer(s) could still supply 80 *per cent* of the load. However, the Department had not complied with this standard in any of its seven 132 KV Sub-Stations.

The Department confirmed (November 2012) the above facts.

Voltage management

3.2.16 The Department using intra-state transmission system should make all possible efforts to ensure that grid voltage always remained within limits. As per Indian Electricity Grid code, the Department should maintain voltage range between 119-145 KV in 132 KV lines. The Performance Audit revealed that in six out of seven Sub-Stations of the Department, the bus voltages recorded ranged between 98 and 143 kV. The variation below the specified range was noticed in four Sub-Stations (Zuangtui, Khawiva, Luangmual and Bukpui) whereas the same was within the specified range in the other two Sub-Stations (Saitual and Bawktlang). Thus, to provide quality power and reduce the transmission losses, the Department should ensure that the maximum and minimum voltages are maintained as per the norms.

In their reply the Department stated (November 2012) that it would take necessary steps for better voltage management.

Transmission Lines

Extra High Tension lines

3.2.17 As per MTPC permissible line loading cannot normally be more than the Thermal Loading Limit (TLL). The TLL limits the temperature attained by the energised conductors and restricts sag and loss of tensile strength of the lines. The TLL limits the maximum power flow of the lines. The Department stated that no instances of overloading of lines were noticed during the period 2007-08 to 2011-12.

Under-utilisation of Transmission Lines

3.2.18 As on March 2012, the Department maintained fifteen transmission lines (132 KV). Ten out of the fifteen transmission lines remained under-utilised as these lines were charged at 33 KV only as there were no 132 KV Sub-Stations at their receiving end (**Appendix-3.2.3**). Three transmission lines could be charged at 33 KV only as both their receiving as well as feeding Sub-Stations were 33 KV only (**Appendix-3.2.3**).

The under-utilisation of the ten transmission lines had resulted in blockade of expenditure incurred in the under-utilised capacity.

The Department in their reply stated (November 2012) that Lines were constructed at 132 KV level considering expected load increase. The reply is not tenable since the load had not increased as the lines still remained charged at 33 KV level even after lapse of 5 to 13 years. Further, in view of heavy capital investment required and the limited life span (35 years as per CERC norms) of 132 KV Lines, construction of 132 KV Line wherever it was not immediately required could have been avoided.

66 KV Transmission Line not in use

3.2.19 Transmission in the State is done at 132 KV. It was observed that the Department had 117 CKT KMs of 66 KV Lines and out of these 91 CKMs (Kolasib - Sentlang) were charged at 33 KV and Sentlang - Zuangtui (Lower) Line with a length of 26 CKT was not charged during 2007-12.

The Department in their reply stated (November 2012) that the unused line would be dismantled for use in maintenance work.

Transmission losses

3.2.20 While energy is carried from the generating station to the consumers through the Transmission & Distribution (T&D) network, some energy is lost, which is termed as T&D loss. Transmission loss is the difference between energy received from the generating station/Grid and energy sent for distribution. The details of transmission loss from 2007-08 to 2011-12 are given below:

Table-3.2.4

| Particulars | Unit | Year | | | | |
|--|--------------------|---------|---------|---------|---------|---------|
| | | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
| Power received for transmission | MUs | 371.12 | 388.86 | 364.48 | 437.05 | 463.43 |
| Net power transmitted | MUs | 356.28 | 383.79 | 359.09 | 431.69 | 456.80 |
| Actual Transmission loss | MUs | 14.84 | 5.07 | 5.39 | 5.36 | 6.63 |
| | percentage | 4.00 | 1.30 | 1.48 | 1.23 | 1.43 |
| Target Transmission loss as per the CEA norm | percentage | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Target Transmission loss as per JERC norms ¹¹ | percentage | NA | NA | NA | NA | NA |
| Transmission loss in excess of CERC norm (Valued at realization per unit as at Para 1.9 row 4) | MUs | NIL | NIL | NIL | NIL | NIL |
| | Rate per unit in ₹ | 2.97 | 3.32 | 2.94 | 2.22 | 3.47 |
| | ₹ in crore | NIL | NIL | NIL | NIL | NIL |

From the above it is clear that the transmission losses have been within the CEA norms. However, JERC in Tariff Order for the year 2012-13 had observed that the Department was not calculating T&D Losses properly and Transmission and Distribution Losses could not be worked out separately in the absence of sufficient data.

Grid Management

Maintenance of Grid and performance of State Load Despatch Centre

3.2.21 Transmission and Grid Management are essential functions for smooth evacuation of power from generating stations to the consumers. Grid Management ensures moment-to-moment power balance in the interconnected power system to take care of reliability, security, economy and efficiency of the power system. Grid management in India is carried out in accordance with the standards/directions given in the Grid Code issued by CEA. National Grid consists of five regions *viz.*, Northern, Eastern, Western, North Eastern and Southern Grids, each of these having a Regional Load Despatch Centre (RLDC), an apex body to ensure integrated operation of the power system in the concerned region. The Mizoram State Load Despatch Centre (SLDC), a constituent of North Eastern Regional Load Despatch Centre (NERLDC), Shillong, ensures integrated operation of power system in the State. The State Load Despatch Centre under the Department started functioning in June 2006.

Infrastructure for load monitoring

3.2.22 Remote Terminal Units/Sub-Station Management Systems (RTUs/SMSs) are essential for monitoring the efficiency of the transmission system and the loads during

¹¹ Joint Electricity Regulatory Commission (JERC) for the States of Manipur and Mizoram, though started functioning in February 2008, has not fixed norm for Transmission Loss for the State

emergency in load dispatch centres as per the Grid norms for all Sub-Stations. It was, however, observed that none of the 132 KV Sub-Stations and Generators of the Department have been provided with RTUs/SMSs for recording real time data for efficient Energy Management System. Further, the SLDC did not have any data storing or back up facilities thus reducing it to a mere observation centre.

Grid discipline by frequency management

3.2.23 As per Grid Code, the transmission utilities are required to maintain Grid discipline for efficient functioning of the Grid. All the constituent members of the Grid are expected to maintain a system frequency between 49 and 50.5 Hertz (Hz) (49.2 and 50.3 Hz with effect from April 2010). Due to various reasons such as shortages in generating capacities, high demand, Grid indiscipline in maintaining load generation balance, inadequate load monitoring and management, Grid frequency goes below or above the permitted frequency levels. To enforce the Grid discipline, the RLDC issues three types of violation messages (A, B, C). Message A is issued when the frequency is less than 49.2 Hz and over-drawl is more than 50 MW or 10 *per cent* of schedule whichever is less. Violation B message is issued when frequency is less than 49.2 Hz and over-drawl is between 50 and 200 MWs for more than ten minutes or 200 MW for more than five minutes. Message C (serious nature) is issued 15 minutes after the issue of message B when frequency continues to be less than 49.2 Hz and over drawl is more than 100 MW or ten *per cent* of the schedule whichever is less. Audit observed that type A and B messages received were 42 and 41 numbers in 2009-10; 13 and 3 in 2010-11 and 41 and 1 in 2011-12. Only 3 type C messages were received during the above period (2 in April and 1 in May 2010).

Grid discipline

3.2.24 For maintenance of Grid discipline the CERC takes up *suo motu* petition on over drawl of power from the Grid at a lower frequency thus putting the Grid to the risk. Year wise number of violations of Grid discipline during the period 2009-10 to 2011-12 is given below:

Table-3.2.5

| Sl. No. | Year | Number of occasions of violation |
|---------|---------|----------------------------------|
| 1. | 2009-10 | 245 |
| 2. | 2010-11 | 379 |
| 3. | 2011-12 | 351 |

Sources: Compiled from the data furnished by NERLDC/Power System Operation Corporation Limited. Further details based on seriousness of the violations were not furnished

From the above, it could be observed that the Grid indiscipline had increased during last three years. Although NERLDC, did not levy any penalty on the Department for the violations, yet increasing trend indicated increased pressure on the Grid which was not in the interest of the State.

Backing Down Instructions (BDI)

3.2.25 When the frequency exceeds the ideal limits *i.e.*, situation where generation is more and drawl is less (at a frequency above 50 Hz) SLDC takes action by issuing Backing Down Instructions (BDI) to the Generators to reduce the generation for ensuring the integrated Grid operations and for achieving maximum economy and efficiency in the operation of the power system in the State. Failure of the generators to follow the SLDC instructions would constitute violation of the Grid code.

It was observed that SLDC did not maintain records showing BDIs issued and generators' failure to comply with the same.

Planning for power procurement

3.2.26 The Department draws long term supply plan taking into account the contracted generation capacity, allocation from central sector and future committed projects and evolves net additional requirement of power. It also draws day ahead plan for assessing its day to day power requirement. The details of total electric energy requirement, total energy supplied and shortfall in energy supply for the five years 2007-08 to 2011-12 are given below:

Table-3.2.6

(Figures in MUs)

| Sl. No. | Details | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
|---------|---|---------|---------|---------|---------|---------|
| 1. | Electrical energy requirement ¹² | 278.00 | 306.00 | 334.00 | 367.00 | 399.00 |
| 2. | Electrical energy supplied ¹³ | 278.64 | 262.03 | 229.67 | 317.99 | 315.99 |
| 3. | Electrical energy short supplied | -- | 43.97 | 104.33 | 49.01 | 83.01 |
| 4. | Percentage of short supplies | 0 | 14.37 | 31.24 | 13.35 | 20.80 |

It could be seen from the above that whereas the energy requirement and energy supplied steadily increased during 2007-12, the percentage of short supply of energy ranged between zero *per cent* in 2007-08 and 31.24 *per cent* in 2009-10.

The gap in demand and supply position and deficient planning in maintaining the actual generation and actual drawl of power in lines with the commitment made under scheduled generation and scheduled drawl of power leads to variation between actual drawl and scheduled drawl which is accounted through Unscheduled Interchange (UI), worked out by NERLDC for each 15 minutes time block. UI charges are payable/receivable to/from the pool for the drawl/non-drawl of energy in variation from the pre-committed weekly schedules.

¹² 17th Electric Power Survey

¹³ P&E Department is an integrated utility. Hence Electrical Energy Supplied was taken as Net Generation + Power Purchase – Transmission and Distribution Losses

In addition to normal UI charges payable, additional UI charges are payable on over drawl of energy when the system frequency is below 49.2 Hz and on non-drawl of scheduled quantity when the system frequency is above 49.5 Hz. The levying of Additional UI charges acts as a commercial deterrent to curb over draws/non-drawls compared to weekly plans during low/high frequency conditions.

The net outgo on account of UI charges and Additional UI charges paid/payable by the Department during the last three years ending 31 March 2012 was ₹ 45.45 crore and ₹ 2.69 crore respectively as detailed below:

Table-3.2.7

(₹ in crore)

| Year | UI charges paid | Additional UI charges paid | Remarks |
|--------------|-----------------|----------------------------|---|
| 2009-10 | 12.58 | 0.49 | <i>Details of UI and Additional UI charges paid by the Department during 2007-08 and 2008-09 were not furnished</i> |
| 2010-11 | 11.18 | 0.64 | |
| 2011-12 | 21.69 | 1.56 | |
| Total | 45.45 | 2.69 | -- |

Since the rates for energy procured through UI is substantially higher than the rate of energy generated and procured from Central Generating Stations, the Department should have minimised drawl of power through UI. On year-to-year basis, payment of UI charges and Additional UI charges indicates an upward trend. The Department had not taken any action to check this undesirable upward trend.

Payment of Reactive Energy Charges - ₹ 33.16 lakh

3.2.27 The Reactive Energy Charge (VAR) is a charge for “non-working” power, or power that has to be made up due to inefficiencies at the customer’s load source. To regulate Reactive energy (VAR) draws/return by the Regional Entities except Generating Stations from/to EHV grid, Clause (1) of Section 6.6 of the Indian Electricity Grid Code (IEGC), stipulates that:

- The Regional Entity pays for VAR drawl when voltage at the metering point is below 97 per cent,
- The Regional Entity gets paid for VAR return when voltage is below 97 per cent,
- The Regional Entity gets paid for VAR drawl when voltage is above 103 per cent, and
- The Regional Entity pays for VAR return when voltage is above 103 per cent

The charge for reactive drawal as specified in IEGC was 10 paise/KVAR w.e.f. 01 April 2010 to be escalated at 0.5 paise/KVAR per year thereafter, unless otherwise revised by the CERC.

Scrutiny of the Reactive Energy Account revealed that during the period 2009-10 to 2011-12, the Department had incurred an expenditure of ₹ 33.16 lakh as reactive energy charges as detailed below:

Table-3.2.8

(₹ in lakh)

| Year* | Amount payable | Amount receivable | Net Amount payable |
|--------------|----------------|-------------------|--------------------|
| 2009-10 | 1.61 | 0.04 | 1.57 |
| 2010-11 | 12.79 | 0.08 | 12.71 |
| 2011-12 | 22.15 | 3.27 | 18.88 |
| Total | 36.55 | 3.39 | 33.16 |

* Details of Reactive Energy Charges paid during the years 2007-08 and 2008-09 were not made available to audit

From the above, it can be seen that there was a gradual annual increase in the reactive energy charges paid by the Department. The increasing trend indicated inefficiencies at Department's load sources. These inefficiencies could have been checked by increasing Plant Load Factor by installation of suitable equipments. Thus, steps may be taken to contain the increasing trend of reactive energy charges.

Disaster Management

3.2.28 Disaster Management (DM) aims at mitigating the impact of a major break down on the system and restoring it in the shortest possible time. As per the Best Practices, DM should be set up by all power utilities for immediate restoration of transmission system in the event of a major failure. It is carried out by deploying Emergency Restoration System, DG sets, vehicles, fire fighting equipments, skilled and specialized manpower.

Disaster Management Centre, National Load Dispatch Centre, New Delhi will act as a Central Control Room in case of disasters.

Inadequate facilities for Disaster Management

3.2.29 As part of DM programme, it is essential to carry out mock drills at frequent intervals for starting up generating stations during black start operations. It was observed that, out of the 13 Generating Stations owned by the Department, black start facilities were available only in three generating stations in the state which pointed to the inadequacy in the preparedness for DM. Diesel Generating (DG) sets and Synchroscopes¹⁴ form part of DM facilities at EHT Sub-Stations connecting major generating stations. None of the generating stations in the state had DG sets or Synchroscopes. Further, the Department failed to address the security needs of the vulnerable section of the installations which could be soft targets for terrorists and sabotage.

Energy Accounting and Audit

3.2.30 Energy Accounting and Audit is necessary to assess and reduce the transmission losses. The Department was, however, still functioning as an integrated utility pending

¹⁴ It is a device that indicates the degree to which two system generators or power networks are synchronised with each other

separation of Generation, Transmission and Distribution functions and did not conduct Energy Accounting and Audit effectively. Hence, data on transmission and distribution losses compiled by the Department remained inaccurate. Further, the Department had not complied with JERC's directive given in last Tariff Order (January 2011) to conduct Energy Audit by providing meters on all the feeders (132 KV, 66 KV, and 11 KV) and at distribution transformers to identify the high loss areas and to accordingly take appropriate measures to reduce both technical and commercial losses to the level fixed by the Commission.

Material Management

3.2.31 The key functions in material management are laying down inventory control policy, procurement of materials and disposal of obsolete inventory. The Department had not formulated any procurement policy and inventory control mechanism for economical procurement and efficient control over inventory.

Failure to adhere to the tender procedures resulted in procurement of 12.5 MVA, 132/33 KV Power Transformers at higher cost

3.2.32 The Superintending Engineer, Aizawl Power Circle floated (March 2007) tender for manufacture, testing, supply, delivery at site including supervision of erection and commissioning of two 12.5 MVA, 132/33 KV Power Transformers for 132 KV Central Sub-Station, Melriat from the manufacturers or their authorised dealers. The Department received four tenders out of which one tender was rejected as it did not meet the payment terms. Out of remaining 3 tenders, the offer (₹ 4.29 crore) made by M/s PRM Power and Projects Pvt. Limited, Jaipur was the Lowest (L1) followed by the offer (₹ 5.53 crore) of M/s Energy Technologies, Jaipur (L2). However, while submitting proposal (October 2007) to the State Purchase Advisory Board (SPAB) it was stated that past experience with L1 was not satisfactory and it had no past experience in using Transformers of Skipper make offered by the L1 party. However, considering the huge difference between the L1 and L2 rates as well as the fact that the Transformers offered by both the tenderers had ISI Certificates, SPAB advised that the L1 and L2 parties be asked to produce Certificates from the Central Power Research Institute (CPRI) to prove that the Transformers offered met the technical specifications. The State Purchase Advisory Board thereafter approved purchase of transformers from L2 party and the Department purchased six transformers from the L2 party.

It was observed that, the without waiting for CPRI certification from L1 party, the Department had finalized the tender with the L2 party in spite of the fact that the Department had previously been accepting the transformers of the specifications offered by L1. Rejecting the offer after evaluating it as L1 was not in accordance with tender procedures. The Department also did not negotiate with the L2 to bring down their offer at L1 rate for taking advantage of the competitive bidding. Thus, the department failed to adhere to the tender procedures which resulted in purchase of six Nos. of Transformers from L2 party at a higher cost of ₹ 3.72 crore.

The Department in their reply stated (November 2012) that the L1 tenderer *viz.* M/s PRM Power Projects (P) Limited could not produce CPRI Certificate and therefore its offer was not considered.

The reply of the Department was not tenable as the party was not rejected on the basis that the transformers offered did not meet technical considerations in accordance with the bid. Moreover, the reply of the Department indicated that past record of the L1 party was not the main criteria for not considering its offer. The Department had also not followed procedures in award of tender to ensure competitive prices.

Excess payment to suppliers on account of CST - ₹ 66.32 lakh

3.2.33 The Department placed five Purchase Orders amounting to ₹ 16.58 crore on M/s Energy Technologies, Jaipur for purchase of various equipment and material during the period 2007-08 to 2011-12.

As per Clause 1 of the General Terms and Conditions of these Purchase Orders, the prices were FOT (Free on Truck) destination basis *viz.* including Excise Duty, Central Sales Tax against 'D' Forms, freight, insurance, installation & Commissioning, Testing Charge *etc.*

Prior to 1 April 2007, the Department, though not a registered dealer under Central Sales Tax (CST) Act availed concessional rate of CST on purchases by furnishing 'D' Forms. But by Taxation Law Amendment Act, 2007 (effective from 1 April 2007), the facility of inter-State purchases by Government Departments against 'D' Forms was withdrawn.

Consequent upon Department's inability to furnish 'D' Forms, the Suppliers M/s Energy Technologies, Jaipur requested for payment of CST at 4 *per cent* and the Department agreed for the same. Accordingly, the Department made a payment of ₹ 66.32 lakh towards CST.

It was observed that the rates of CST on interstate purchases against 'C' or 'D' Forms were 4 *per cent* during the period prior to April 2007. On interstate purchases without 'C' or 'D' Forms, CST was payable at local VAT rates. For power transformers the local VAT rate (VAT prevailing in U.P *i.e.* the State from where the supplier was purchasing goods) during the period of purchase of the power transformers was also 4 *per cent*. The suppliers had already loaded 4 *per cent* CST (payable against 'D' Form) in their offered price. Since CST against 'D' Form that was loaded in the price and local VAT rate were same, the suppliers had not suffered any additional liability on account of the Department's inability to give 'D' Forms as specified in the purchase orders.

In view of above, the payment of ₹ 66.32 lakh to the suppliers tantamounted to dual reimbursement of CST component on purchase of power transformers.

The Department in their reply stated (November 2012) that the CST @ 4 *per cent* claimed by the suppliers due to non-availability of Form 'D' was the tax paid on subsequent sale of transformers and so it was payable. Reply of the Department was not tenable as the supplies were through transfer of documents of title.

Monitoring and Control

3.2.34 The performance of the Sub-Stations and lines of 132 KV on various parameters like Maximum and Minimum voltage levels, breakdowns, voltage profiles should be recorded/ maintained as per the Grid code standards. It was noted that the year-wise cumulative performance of the Sub-Stations and lines were neither being maintained nor consolidated for evaluation of annual performance of the Sub-Stations and lines. However, the field units (Divisions) compile the monthly MIS reports indicating the performance of the units as well as equipments installed. Though, these reports were forwarded to the office of the Chief Engineers/Engineer-in-Chief, they were not consolidated for deriving a holistic performance position of the Sub-Stations and lines.

Review of the envisaged benefits of T&D schemes

3.2.35 The Department completed construction of 1 EHT Sub-Station and erected a total length of 225.760 CKM of EHT lines during the review period. While approving the T&D schemes, the Department envisaged benefits in terms of reduction in line losses, improvement in voltage levels and the load growth to be achieved by the new schemes. It was, however, observed that there was no mechanism in position to assess whether such envisaged benefits were achieved on completion of construction of such Sub-Stations/ Lines.

Internal Controls and Internal Audit

3.2.36 Internal control is a process designed for providing reasonable assurance for efficiency of operations, reliability of financial reporting and compliance with applicable laws and statutes. Internal Audit is designed to ensure proper functioning as well as effectiveness of the internal control system and detection of errors and frauds.

Audit observed that during the last five years ended 31 March 2012, Internal Audit was not conducted in the Department.

Conclusions

3.2.37 The Performance Audit revealed

- ❖ Absence of comprehensive long term plans for enhancing transmission network keeping in view the growth in demand and separate annual plans.
- ❖ Delay in execution of projects contributing to time and cost overruns.
- ❖ Lack of proper planning and coordination in formulation of projects and their timely implementation.
- ❖ Cases of abnormal overloading of transformers and under utilisation of transmission lines.
- ❖ Shortfall in installation of reactors/ shunt capacitors resulting in payment of reactive charges.
- ❖ Inadequate disaster management and monitoring system.

Recommendations

3.2.38 The Department needs to-

- ❖ Prepare comprehensive long term and annual plans for enhancing transmission network along with separate annual plans.
- ❖ Adhere to the recommendations of Task Force for efficient and timely execution of its projects.
- ❖ Avoid under utilisation of transmission lines.
- ❖ Comply with safety regulations for disaster management.
- ❖ Strengthen the monitoring systems for better management and control of the transmission infrastructure.

INDUSTRIES DEPARTMENT

Mizoram Food and Allied Industries Corporation Limited (MIFCO)

3.3 Avoidable loss of ₹ 1.95 crore on Procurement and Processing of Passion Fruit

The Company purchased raw Passion Fruit for manufacture of passion fruit juice in excess of its installed capacity and without having required demand for the product resulting in loss of ₹ 1.95 crore by way of damage of raw passion fruit (₹ 62.92 lakh) and passion fruit juice (₹ 1.32 crore).

Fruit Juice Concentrate Plant of Mizoram Food and Allied Industries Corporation Limited (the Company) at Chhingchhip in Aizawl district was commissioned in May 1998 with an installed capacity to process 964 MT of raw fruits (Pineapple, Orange and Passion Fruit) per annum (3.213 MT per day) for production of Juice Concentrate, Jam, Ready To Serve juices *etc.* For procurement of raw passion fruit, the Company received financial assistance from time to time from the Government of Mizoram (GoM).

During the year 2008-09, the Company procured 1,576.193 MT of raw passion fruit. Out of the raw passion fruit procured, only 946.986 MT was processed to manufacture passion fruit juice.

It was noticed in audit that in spite of installed processing capacity of only 3.1213 MT per day, the daily procurement of the raw passion fruit during the season of 2008-09 ranged between 0.288 and 17.783 MT. Since the raw passion fruit was required to be processed on the same day after procurement/harvesting to avoid its deterioration, processing of the entire quantity of fruit procured was not possible. Moreover, the Company did not have any cold storage facility to enable it process the raw passion fruit as and when required. Thus, the Company could either not process some of the raw material or processed it after a delay of three to four days which affected quality of the product.

During the year 2008-09, the Company could not process 629.207 MT of raw passion fruit valuing ₹ 62.92 lakh due to capacity constraints and therefore this whole quantity of raw material was damaged.

Similarly, during the period from 2008-09 to 2011-12, 2.44 lakh litres of passion fruit juice valuing ₹ 1.32 crore was found to be of inadequate quality and unsuitable for sale/further processing due to poor quality of product and processing of raw fruit after a delay of more than one day.

Further, audit also noticed that the Company had been processing the raw passion fruit without ascertaining the demand and its storage infrastructure. Against market demand of about 0.10 lakh litres of passion fruit juice per annum, the Company had produced 1.72 lakh of the passion fruit juice during 2008-09. Processing of the passion fruit juice in excess of the market demand during 2008-09 also contributed to the damage of the fruit juice as its shelf life was limited.

Thus, failure of management to procure raw material matching installed capacity of its plant and market demand resulted in loss of ₹ 1.95 crore.

The Management in its reply stated (June 2012) that during the year 2008-09, production of passion fruits in the State was higher compared to previous and succeeding years and due to pressure from the farmers and as per the instruction of GoM, entire quantity of fruits offered were procured without considering quality of the material, processing capacity of the plant and demand for the product in the market.

The reply of the management was not acceptable as it could not safeguard its interests by not appraising the GoM of its liability to handle large volume of raw material due to limited installed capacity of its plant, absence of cold storage facility and limited demand of the product.

The matter was reported (September 2012) to the Government and the Government admitted (December 2012) the audit findings.

Recommendation: The Company should enhance its processing capacity by completing the ongoing up-gradation/expansion of the plant without further delay and explore possibility of marketing the product outside the State by tying up with marketing agencies.

Mizoram Handloom & Handicrafts Development Corporation Limited (ZOHANDCO)

3.4 Claiming excess rebate on sale of handloom cloths

The Company claimed excess rebate of ₹ 1.27 crore on sale of handloom cloth by reporting inflated sales figures during the period 2002-03 to 2008-09.

Government of India (GoI) introduced (February 2004) a scheme for reimbursement of special rebate @ 10 per cent to be allowed to the State level handloom organisations and

societies on the retail sale of handloom cloth. The scheme objective was to sustain the employment cycle by supplementing the ongoing marketing efforts and reviving production in the handloom sector. It was expected that with the introduction of the Scheme, the handloom organisations and societies would be able to liquidate the handloom stock available with them by giving rebate on such sales, thereby ensuring the scope for further production/procurement of handloom materials from weaver(s)/their member(s) or member societies/handloom weavers' cooperative societies. The scheme was effective from the financial year 2002-03.

The entire assistance under the scheme was in the form of Central Grant to be released through the State Government. The 10 *per cent* rebate was applicable for direct retail sales to consumers for goods which had either been produced by the implementing agency itself or procured from the handloom weavers attached to it/ member handloom weavers/cooperative societies. The implementing agencies were required to submit their claim(s), certified by a Chartered Accountant on a periodic basis and in the prescribed proforma to the State Government for scrutiny and onward transmission of the same to GoI with its recommendations for release of funds.

Scrutiny of records revealed that the Company had claimed rebate of ₹ 1.31 crore on reported sales of ₹ 13.06 crore under the scheme during the period from 2002-03 to 2008-09, out of which the GoI had released an amount of ₹ 25.33 lakh so far (December 2012). Balance amount was not settled so far by the GoI.

It was also observed that sale of handloom cloth made by the Company during the above period was only ₹ 35.87 lakh and therefore it was eligible for a rebate of ₹ 3.59 lakh only instead rebate of ₹ 1.31 crore. Thus, the Company had reported inflated sales (verified by the Chartered Accountants) in their claim(s) which had resulted in raising of excess claim for rebate amounting to ₹ 1.27 crore (Details given in **Appendix-3.4.1**).

In their reply the Government admitted (December 2012) the fact that sales reported for claiming rebate were different from actual sales.

3.5 Corporate Governance in State Government Companies

Introduction

Through the system of Corporate Governance the Board of Directors (BoD) of Public Sector Undertakings (PSUs) direct and control their affairs in the best interest of the shareholders by ensuring greater transparency in operations and better timely and meaningful financial reporting.

Section 217 of the Companies Act, 1956 provides *inter alia* that Directors' Responsibility Statement (DRS) is to be attached to the Directors' Report for submission to shareholders. According to sub section 2AA of Section 217 of the Act *ibid*, the BoD has to report to the shareholders that it had taken proper and sufficient care for safeguarding the assets of the Company and preventing and detecting fraud and other irregularities.

Further, in terms of Section 292A of the Companies Act, 1956 notified in December 2000, every Public Limited Company having paid up capital of not less than ₹ five crore shall constitute an Audit Committee at the Board level. The Act also provides that the Statutory Auditors, Internal Auditors, if any, and the Director in charge of Finance should attend and participate in the meetings of the Audit Committee.

Out of six working State Government Companies, Audit reviewed matters relating to Corporate Governance of five companies (all unlisted) as detailed in **Appendix-3.5.1** covering the period 2007-08 to 2011-12. Audit findings are discussed in the succeeding paragraphs.

Board of Directors (BoD)

The responsibility of good governance rests on the BoD to ensure that principles of Corporate Governance both as stipulated by the law and those expected by the stakeholders' interests are kept at the highest level. In order to meet this responsibility, every Company should hold meeting of the BoD at regular intervals. Every Director should attend these meetings to share the expertise and knowledge and to guide the affairs of the Company.

Meetings of BoD

Section 285 of the Companies Act, 1956 provides that "in case of every Company a meeting of BoD shall be held at least once in every three months and at least four such meetings shall be held every year. It was noticed that two Companies viz. MAMCO and ZOHANDCO did not hold the required minimum number of meetings in any year under the review. MIFCO held four meetings in 2009-10, ZENICS held four meetings each in 2007-08 & 2009-10 and ZIDCO held four meetings in 2011-12. In other years they did not hold the required minimum number of meetings. The interval between two meetings ranged from 3 and 29 months in the case of MAMCO, Nil and five months in MIFCO, 1 and 25 months in ZOHANDCO, Nil and six months in ZENICS and 1 and 11 months in ZIDCO. This indicated that BoD meetings were not held in accordance with the provisions of the Companies Act, 1956.

Attendance of Directors in Board meetings

It was observed that in MIFCO no leave of absence was granted to Directors who did not attend the meetings. Further, entry and exit of Directors into and from the Board were not mentioned in the minutes any of the PSUs.

Annual Accounts and Balance Sheet

Section 210 of the Companies Act, 1956 provides that (1) At every Annual General Meeting (AGM) of a Company held in pursuance of section 166, the BoD of the Company shall lay before the company - (a) a balance sheet as at the end of the period specified in sub-section (3) and (b) a profit and loss account for that period. The profit and loss account shall relate - (a) in the case of the first AGM of the Company, to the period beginning with the incorporation of the Company and ending with a day which shall not precede the day of the meeting by more than nine months and (b) in the case of any subsequent AGM of the

Company, to the period beginning with the day immediately after the period for which the account was last submitted and ending with a day which shall not precede the day of the meeting by more than six months, or in cases where an extension of time has been granted for holding the meeting under the second proviso to sub-section (1) of Section 166, by more than six months and any extension so granted.

As on 31 August 2012, accounts of all the five companies were in arrears for a period ranging between 1 and 11 years and the total number of accounts in arrears were 24. Delay in placing accounts before the AGMs by these companies (considering accounts in arrears and adopted during the period 2007-08 to 2010-11) ranged between 5 and 131 months.

Delay in placement of Annual Reports before State Legislature

As per Section 619 A (3) of the Companies Act, 1956 where State Government is a member of a Company, the State Government shall cause an Annual Report on the working and affairs of the Company along with the Audit Report and Comments of the Comptroller and Auditor General of India (C&AG) to be placed before State Legislature within three months from the date of Annual General Meeting (AGM) in which the accounts have been adopted. Annual Report consists of a report by the BoD on the working of the Company as required by Section 217 of the Companies Act, 1956, Annual Financial Statements for the year and Auditor's Report thereon with the Comments/ Supplementary Report of the C&AG. The placement of the Annual Report before the State Legislature gives it an opportunity to have important information regarding the performance of the Company in which the State Government is a major shareholder. It was observed that though four years' accounts were adopted in AGMs of ZIDCO during the period 2007-08 to 2011-12, these Annual Reports have not been placed in the State Legislature so far. Similarly, Annual Report for the year 1999-2000 adopted by ZOHANDCO in March 2011 and Annual Report for the year 2001-02 adopted by ZENICS in December 2009 have not been placed in the State Legislature so far. Annual Reports of MAMCO and MIFCO also were either not placed or placed belatedly before State Legislature due to delay in conducting AGMs.

Directors' Report to shareholders

Section 217(2AA) of the Companies Act, 1956 requires that a report of the BoD including Director's Responsibility Statement (DRS) be attached to every balance sheet laid before the shareholders at the AGM. ZIDCO did not prepare and attach Directors' Report to its balance sheet laid before the shareholders at the AGM held during any year under review. The Directors' Report of other PSUs except MAMCO did not include DRS.

Addendum to Directors' report

As per section 217(3) of the Companies Act, 1956 the Board is bound to give full information and explanation in an addendum to the Board's Report on every reservation, qualification or adverse remark contained in Auditors' Report.

It was noticed that Directors' Report of MAMCO, MIFCO, ZOHANDCO and ZENICS did not include such an addendum to the Board's Report in contravention of the provisions of the Act cited above.

Audit committee

In terms of Section 292A of the Companies Act, 1956 which came into effect in December 2000 every public limited Company having paid up capital of not less than ₹ five crore shall constitute an Audit Committee at the Board level. The Act also provides that the Statutory Auditors, Internal Auditors, if any, and the Director in charge of finance should attend and participate in the meetings of the Audit Committee. The main functions of Audit Committee are to review the financial reporting system to ensure that the financial statements are correct, sufficient and credible. It should interact with the auditors periodically about internal control systems, review half yearly and annual financial statements before submission to the BoD and ensure compliance of internal control systems. This provision was applicable to all the five PSUs reviewed. However, none of the PSUs had constituted Audit Committee.

Appointment of Company Secretary

According to Section 383A of the Companies Act, 1956 all Companies having paid up share capital of ₹ five crore and above shall have a whole time Company Secretary. It was observed that none of the PSUs had appointed whole time Company Secretary, though paid up capital exceeded ₹ five crore in every PSU.

Annual General Meetings (AGMs)

Section 166 read with Section 210 of the Companies Act, 1956 provides that the AGMs are to be held on the earliest of the following dates:

- ❖ 15 months from the date of last AGM;
- ❖ The last day of the calendar year;
- ❖ Six months from the close of the financial year.

The earliest of the above happens to be six months from the close of the financial year. It was noticed that ZENICS held no AGM where as ZOHANDCO held AGM twice during the period under review. The interval in holding AGM in other PSUs varied between Nil and 18 months during the above period.

The matter was reported (September 2012) to the Government and their reply was awaited (March 2013).