

## Chapter-4 : Economic Sector (PSUs)

### 4E. General introduction

**4.1.1** Under Sectoral re-organisation, all the Public Sector Undertakings (PSUs) of Social, General, Revenue and Economic Sectors have been clubbed together under Economic Sector (PSUs), which comprised of 20 departments. Some of the major departments in this Sector are Industries, Power, Transport, Tourism, Animal Husbandry and Fisheries, Agriculture, Information Technology, Village and Small Industries etc. The total number of the Companies and Statutory Corporations of the State are 22 and two respectively. The working State PSUs are established to carry out activities of commercial nature while keeping in view the welfare of people. In Uttarakhand, the State PSUs occupied a moderate place in the State economy. The working State PSUs registered a turnover of ₹ 3258.60 crore for 2011-12 (**Appendix 4.1**) as per their accounts finalised as of September 2012. Their turnover was equal to 5.35 *per cent* of State Gross Domestic Product (GDP) of ₹ 60898 crore for 2011-12. Major activities of State PSUs are concentrated in power sector. The working PSUs incurred a loss of ₹ 562.75 crore in 2011-12 (**Appendix 4.1**). They had employed 18,329<sup>1</sup> employees as of 31 March 2012.

As on 31 March 2012, there were 24 PSUs as detailed in the **Table 4.1.1** below:

**Table 4.1.1**

Type of PSUs	Working PSUs	Non-working PSUs <sup>2</sup>	Total
Government Companies <sup>3</sup>	18	04 <sup>4</sup>	22
Statutory Corporations	02	-	02
<b>Total</b>	<b>20</b>	<b>04</b>	<b>24</b>

None of these companies were listed on the stock exchange.

### 4.1.2 Audit Mandate

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 the 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 the Government(s), Government Companies and Corporations controlled by

<sup>1</sup> As per the details provided by 16 PSUs.

<sup>2</sup> Non-working PSUs are those which have ceased to carry on their operations.

<sup>3</sup> includes 619-B companies.

<sup>4</sup> Kumtron Limited, Uttar Pradesh Hill Phones Limited, Uttar Pradesh Hill Quartz Limited and UPAI Limited (under liquidation since 31 March 1991).

Government(s) is treated as if it were a Government Company (Deemed Government Company) as per Section 619-B of the Companies Act.

The accounts of the Government Companies are audited by Statutory Auditors who are appointed by the Comptroller and Auditor General of India (the CAG) as per the provisions of Section 619(2) of the Companies Act, 1956. These accounts are also subject to supplementary audit conducted by the CAG as per the provisions of Section 619(3)(b) of the Companies Act, 1956.

Audit of Statutory Corporations is governed by their respective Legislations. Out of two Statutory Corporations, the CAG is the sole auditor for Uttarakhand Parivahan Nigam. In respect of Uttarakhand Pey Jal Sansadhan Vikas Evam Nirman Nigam, the audit was entrusted to the CAG with effect from 2003-04 to 2008-09 and then extended upto 2013-14 under Section 20(1) of the Comptroller and Auditor General's (Duties, powers and Conditions of Service) Act, 1971.

#### **4.1.3 Investment in State Public Sector Undertakings (PSUs)**

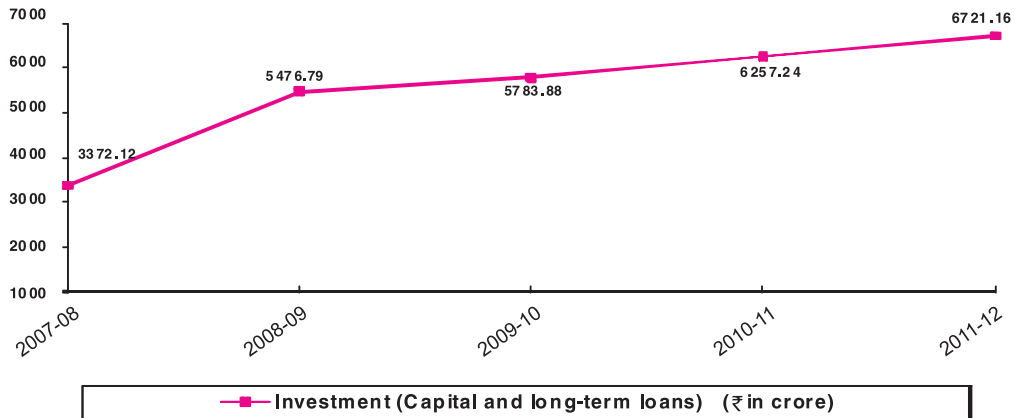
As on 31 March 2012, the Investment (Capital and Long Term Loans) in 24 PSUs (including 619-B Companies) was ₹ 6721.16 crore as per details given in **Table 4.1.2** below:

**Table 4.1.2** (₹ in crore)

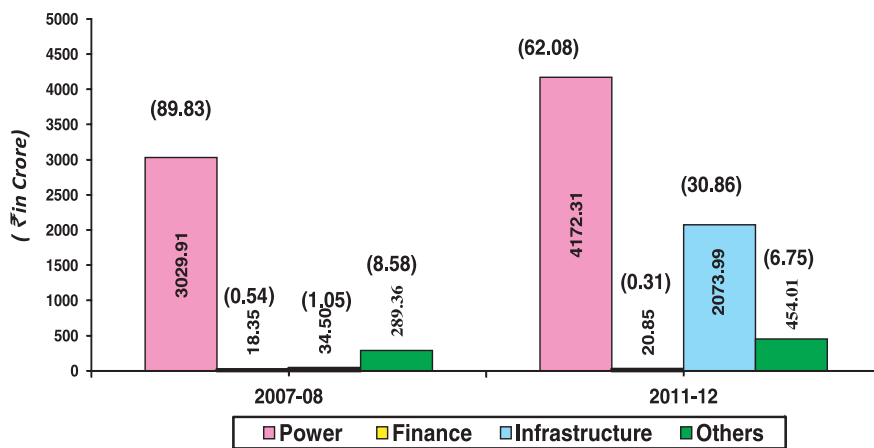
Type of PSUs	Government Companies			Statutory Corporations			Grand Total
	Capital	Long Term Loans	Total	Capital	Long Term Loans	Total	
Working PSUs	1726.07	2755.96	4482.03	2,111.59	127.16	2,238.75	6720.78
Non-working PSUs	0.38	-	0.38	-	-	-	0.38
<b>Total</b>	<b>1726.45</b>	<b>2755.96</b>	<b>4482.41</b>	<b>2111.59</b>	<b>127.16</b>	<b>2238.75</b>	<b>6721.16</b>

A summarised position of Government Investment in State PSUs is detailed in **Appendix 4.2**.

As on 31 March 2012, 99.99 per cent of the total Investment in State PSUs was in working PSUs and the remaining 0.01 per cent in non-working PSUs. This total Investment in working PSUs consisted of 57.10 per cent towards Capital and 42.90 per cent in Long Term Loans. The total Investment increased by 99.32 per cent from ₹ 3372.12 crore in 2007-08 to ₹ 6721.16 crore in 2011-12 as shown in the graph below:



The Investment in various important sectors of the Economy and percentage thereof at the end of 31 March 2008 and 31 March 2012 are indicated below in the bar chart. Though the major investment was in power sector (62.08 per cent), the thrust of investment in the State was shifting towards infrastructure sector, the percentage of which rose from 1.05 per cent in 2007-08 to 30.86 per cent in 2011-12.



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

#### 4.1.4 Budgetary outgo, grants/subsidies, guarantees and loans

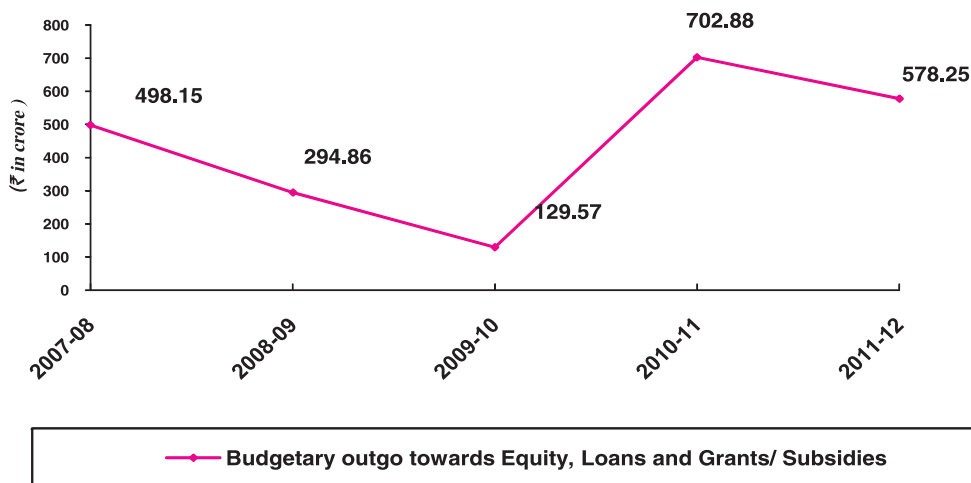
The details regarding budgetary outgo towards equity, loans, grants/ subsidies and guarantees issued in respect of State PSUs are given in **Appendix 4.3**. The summarised details for the last three years ended 31 March 2012 are given in **Table 4.1.3** below:

**Table 4.1.3**

(₹ in crore)

Sl No	Particulars	2009-10		2010-11		2011-12	
		No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
1.	Equity Capital outgo from budget	3	104.01	3	603.71	4	44.00
2.	Loans outgo from budget	2	24.32	3	65.70	5	458.02
3.	Grants/Subsidy outgo	6	1.24	3	33.47	5	76.23
4.	Total outgo (1+2+3)		129.57	5	702.88		578.25
5.	Guarantees issued	2	277.54	2	279.98	1	1.35
6.	Guarantee Commitment	3	1428.81	3	289.75	5	1110.90

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



The budgetary outgo in State PSUs in the form of equity, loans and grants/subsidies provided by the State Government ranged between ₹ 498.15 crore and ₹ 578.25 crore during 2007-08 to 2011-12.

The amount of Guarantee commitment as on 31 March 2010 was ₹ 1428.81 crore (three PSUs) which decreased to ₹ 289.75 crore (three PSUs) as on 31 March 2011 and increased to ₹ 1110.90 crore (five PSUs) as on 31 March 2012 as detailed in

**Appendix 4.3.** The State Government charged Guarantee fee at the rate of one *per cent* in case of all PSUs and two *per cent* in case of defaulting PSUs. Guarantee fee of ₹ 11.03 crore was paid to State Government by two PSUs (Uttarakhand Jal Vidyut Nigam Limited and Uttarakhand Power Corporation Limited) during 2011-12.

#### 4.1.5 Reconciliation with Finance Accounts of the Government

The figures in respect of equity, loans and guarantees outstanding as per records of State PSUs should match with that of the figures appearing in the Finance Accounts of the Government. In case the figures do not match, the concerned PSUs and the Finance Department should carry out reconciliation of differences. The position in this regard as at 31 March 2012 is given in **Table 4.1.4** below:

**Table 4.1.4** (₹ in crore)

Outstanding in respect of	Amount as per Finance Accounts	Amount as per records of PSUs	Difference
Equity	1760.02	3837.66	2077.64
Loans	674.89	2883.11	2208.22
Guarantees	1187.45	1110.90	76.55

Audit observed that the differences occurred in respect of 20 PSUs and some of the differences were pending reconciliation since 2003. The Government and the PSUs should take concrete steps to reconcile the differences in a time bound manner.

#### 4.1.6 Performance of Public Sector Undertakings (PSUs)

The financial position and working results of PSUs are detailed in **Appendix 4.1**. A ratio of PSUs turnover to State Gross Domestic Product (GDP) shows the extent of PSU's activities in the State economy. The details of working PSUs turnover and State GDP for the period from 2007-08 to 2011-12 are given in **Table 4.1.5** below:

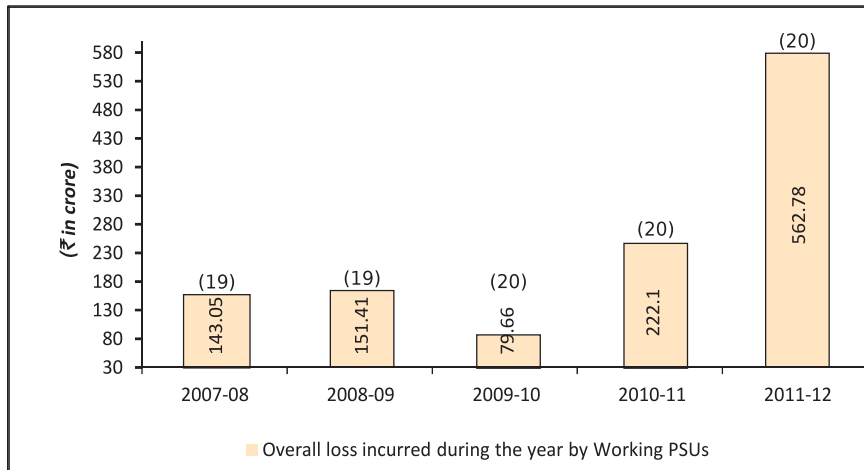
**Table 4.1.5**

(₹ in crore)

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12
Turnover <sup>5</sup>	1481.94	1527.06	1722.95	2539.52	3258.60
State GDP	34549.00	40159.00	46872.00	52143.00	60898.00
Percentage of Turnover to State GDP	4.29	3.80	3.68	4.87	5.35

The percentage of turnover to the State GDP had declined from 4.29 *per cent* in 2007-08 to 3.68 *per cent* in 2009-10 and increased to 4.87 *per cent* and 5.35 *per cent* in the year 2010-11 to 2011-12 respectively.

Losses incurred by State working PSUs during 2007-08 to 2011-12 are given below in the bar chart.



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

It can be seen from the bar chart that overall losses increased from ₹ 143.05 crore in 2007-08 to ₹ 562.78 crore in 2011-12. During the year 2011-12 out of 20 working PSUs, eight PSUs earned Profit of ₹ 60.72 crore and 12 PSUs incurred Loss of ₹ 623.47 crore. The main profit earning PSUs were State Industrial Development Corporation of Uttarakhand Limited (₹ 33.38 crore) and Uttarakhand Jal Vidyut Nigam Limited (₹ 17.23 crore). The main loss making PSUs were Uttarakhand Power Corporation Limited (₹ 527.48 crore), Uttarakhand Pey Jal Sansadhan Vikas Evam Nirman Nigam (₹ 37.58 crore),

<sup>5</sup> Turnover as per the latest finalised accounts as of 30 September 2011.

Doiwala Sugar Company Limited (₹ 16.22 crore) and Power Transmission Corporation of Uttarakhand Limited (₹ 9.50 crore).

The reasons for the losses incurred by the PSUs were mainly attributable to deficiencies in financial management, planning, implementation of project, running their operations and monitoring. A review of latest Audit Reports of the CAG shows that the State PSUs incurred losses to the tune of ₹ 2319.60 crore and infructuous investment of ₹ 7.12 crore which were controllable with better management. The year-wise details from Audit Reports are given in **Table 4.1.6** below:

**Table 4.1.6** (₹ in crore)

Particulars	2009-10	2010-11	2011-12	Total
Net Profit (Loss)	(-) 79.66	(-) 221.62	(-) 562.77	(-)864.05
Controllable Losses as per CAG's Audit Report	1283.32	711.76	324.52	2319.60
Infructuous Investment	-	6.29	0.83	7.12

The above losses pointed out in Audit Reports of the CAG were based on test check of records of PSUs. The above situation points towards a need for professionalism and accountability in the functioning of PSUs.

Some other key financial parameters such as, return on capital employed, debt, turnover, etc. pertaining to State PSUs are given in **Table 4.1.7** below:

**Table 4.1.7** (₹ in crore)

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12
Return on Capital Employed (per cent)	-	-	0.96	0.98	-
Debt	2356.08	2387.65	2588.39	2465.29	2883.12
Turnover <sup>6</sup>	1481.91	1527.06	1722.95	2539.52	3258.60
Debt/ Turnover Ratio	1.59:1	1.56:1	1.50:1	0.97:1	0.88:1
Interest Payments	158.78	156.53	124.82	271.63	288.64
Accumulated Losses (-)	(-)291.71	(-) 283.60	(-) 420.39	(-) 807.79	(-) 1905.97

(Above figures pertain to all PSUs except for turnover which is for working PSUs)

It can be seen that debt figure increased from ₹ 2356.08 crore in 2007-08 to ₹ 2588.39 crore in 2009-10, but slightly decreased in 2010-11 and further

<sup>6</sup> Turnover of working PSUs as per the latest finalised accounts as of 30 September 2011.

increased to ₹ 2883.12 crore in 2011-12. The debt-turnover ratio had decreased from 1.59:1 in 2007-08 to 0.88:1 in 2011-12, as the rate of increase in turnover outstripped the rate of increase in debt. The accumulated losses increased from ₹ 291.71 crore in 2007-08 to ₹ 1905.97 crore in 2011-12.

The State Government did not formulate any norm for dividend under which all PSUs were required to pay a minimum return on the paid up share capital contributed by the State Government. As per their latest finalised accounts, eight PSUs earned an aggregate profit of ₹ 60.72 crore but no dividend had been declared by them.

#### **4.1.7 Arrears in finalisation of accounts**

Under Sections 166, 210, 230, 619 and 619-B of the Companies Act, 1956, 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. Similarly, in case of Statutory Corporations, their accounts are finalised, audited and presented to the Legislature as per the provisions of their respective Acts. The details of progress made by the working PSUs in finalisation of accounts by September 2012 are given in **Table 4.1.8** below:

**Table 4.1.8**

Sl. No.	Particulars	2007-08	2008-09	2009-10	2010-11	2011-12
1.	Number of working PSUs	19	20	20	20	20
2.	Number of accounts finalised during the year	10	13	12	28	15
3.	Number of accounts in arrears	128	135	143	135	140
4.	Average arrears per PSU (3/1)	6.74	6.75	7.15	6.75	7
5.	Number of working PSUs with arrears in accounts	19	20	20	19	20
6.	Extent of arrears	1 to 21 years	1 to 22 years	1 to 23 years	1 to 24 years	1 to 25 years

The arrears in finalisation of accounts ranged from 128 to 143 during the period 2007-08 to 2011-12. The State PSUs failed to clear on an average at least one account each year during any of preceding five years from 2007-08 to 2011-12 causing accumulation of the arrears. As stated by the PSUs, lack of trained staff was the main reason for delay in finalization of accounts. The State PSUs need to take effective measures for early clearance of backlog in finalization of accounts and bring the position up-to-date.

In addition to above, there were arrears in finalisation of accounts by non-working PSUs also. Out of four non-working Companies, one Company, i.e.,



UPAI Limited was under liquidation process since 31 March 1991 and remaining three non-working PSUs<sup>7</sup> had arrears of accounts for 21 to 25 years.

The State Government had invested ₹ 1168.42 crore (Equity: ₹ 624.54 crore, loans: ₹ 522.33 crore and Grants/ Subsidy: ₹ 21.55 crore) in five PSUs during the years 2004-05 to 2011-12 for which accounts had not been finalised as detailed in **Appendix 4.4**. The delay in finalisation of accounts may result in risk of fraud and leakage of public money apart from violation of the provisions of the Companies Act, 1956.

The Administrative departments have the responsibility to oversee the activities of these entities and ensure that the accounts are finalised and adopted by these PSUs within the prescribed period. It may be noticed from **Table 4.1.8** above, that the quantum of arrears in finalization of accounts of working PSUs increased from 128 in 2007-08 to 140 in 2011-12. The Principal Accountant General (Audit) had brought this matter (29 June 2011) to the notice of the Heads of Departments through the Chairman, Committee on Public Undertakings (COPU), Uttarakhand to expedite the liquidation of arrears in accounts.

#### 4.1.8 Winding up of non-working PSUs

There were four non-working PSUs as on 31 March 2012. Of these, one PSU has commenced liquidation process. The stages of closure in respect of non-working PSUs are given in **Table 4.1.9** below:

**Table 4.1.9**

Sl. No.	Particulars	Companies	Statutory Corporations	Total
1.	Total No. of non-working PSUs	04 <sup>8</sup>	-	04
2.	Of (1) above, the No. under	-	-	-
(a)	liquidation by Court (liquidator appointed)	01 <sup>9</sup>	-	01
(b)	Voluntary winding up (liquidator appointed)	-	-	-
(c)	Closure, i.e., closing orders/ instructions issued but liquidation process not yet started.	03	-	03

During the year 2011-12, no Company was finally wound up. The only Company, i.e., UPAI Limited, which had taken the route of winding up by Court order, was under liquidation for more than 20 years. The process of voluntary winding up under

<sup>7</sup> Kumtron Limited, Uttar Pradesh Hill Phones Limited and Uttar Pradesh Hill Quartz Limited.

<sup>8</sup> Kumtron Limited, Uttar Pradesh Hill Phones Limited, Uttar Pradesh Hill Quartz Limited and UPAI Limited.

<sup>9</sup> The Company, i.e., UPAI Limited was under liquidation since 31 March 1991.

the Companies Act is much faster and needs to be adopted/ pursued vigorously. The Government may consider expediting the process of closing down its non-working Companies.

#### **4.1.9 Accounts Comments and Internal Audit**

Seven working Companies forwarded 14 audited accounts to PAG during the year 2011-12. As on 30 September 2012, 12 accounts were selected for Supplementary Audit and non-review certificates were issued in respect of two companies. The audit reports of Statutory Auditors appointed by the CAG and the supplementary audit of the CAG indicate that the quality of maintenance of accounts needs to be improved substantially. The details of aggregate money value of comments of the Statutory Auditors and the CAG are given in **Table 4.1.10** below:

**Table 4.1.10** (₹ in crore)

Sl. No.	Particulars	2009-10		2010-11		2011-12	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1.	Decrease in profit	4	168.70	7	174.57	3	26.04
2.	Increase in loss	7	16.19	7	247.12	6	234.81
3.	Non-disclosure of material facts	3	169.52	6	1,251.59	2	11.41

During the year, the Statutory Auditors had given qualified certificates for all the 13 accounts except in respect of account of one Company, i.e., Uttarakhand State Infrastructure Development Corporation Limited (USIDC) for the year 2009-10.

Some of the important comments on the accounts of the Government Companies are stated below:

##### ***Uttarakhand Jal Vidyut Nigam Limited (2009-10)***

- Non-provision of penal interest due to default in repayment of principal and interest on loan amount of LIC resulted in understatement of Unsecured Loan, Interest payable to LIC and overstatement of Profit by ₹ 3.68 crore.
- Non provision of expenditure of ₹ 1.63 crore incurred on Sobla – II Project which came under submergence area of NHPC Project resulted in overstatement of Capital Work-in-Progress as well as Profit by ₹ 1.63 crore.
- Non provisioning of Electricity charges of ₹ 10.21 crore billed against UP Irrigation Department during 2001 to March 2011, being doubtful of recovery, resulted in overstatement of Sundry Debtors as well as Profit by ₹ 10.21 crore.

**Uttarakhand Power Corporation Limited (2009-10)**

- Non provision of penal guarantee fee payable to the Government resulted in understatement of Loss as well as Current Liabilities by ₹ 10.40 crore.
- Non provision of interest liability for the year 2006-07 and 2009-10 on account of Tax free 'Power Bonds' issued to Central Public Sector Undertakings by Uttarakhand Government resulted in understatement of Sundry Creditors as well as Loss by ₹ 66.52 crore.

**U.P. Hill Electronic Limited (1997-98)**

- Non provision of bad and doubtful debts on sundry debtors which were more than 18 years old resulted in overstatement of Sundry Debtors and understatement of Loss by ₹ 1.16 crore.

**Power Transmission Corporation of Uttarakhand Limited (2010-11)**

- Non provision of penal guarantee fee payable to Uttarakhand Government resulted in understatement of Current Liabilities and overstatement of Profit by ₹ 3.30 crore.
- Non provision of miscellaneous advance given to contractor for more than seven year for which recovery of the advance was doubtful. This has resulted in overstatement of Loan and Advance and understatement of Loss by ₹ 3.10 crore.

Audit in respect of Uttarakhand Pey Jal Sansadhan Vikas Evam Nirman Nigam was entrusted to the CAG under Section 20(1) of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971 and had finalized its annual accounts for one year (2010-11) during 2011-12. The details of aggregate money value of comments of the CAG for the last three years ended 31 March 2012 are given in **Table 4.1.11** below:

**Table 4.1.11****(₹ in crore)**

Sl. No.	Particulars	2009-10		2010-11		2011-12	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1.	Decrease in Profit	-	-	5	40.84	-	-
2.	Increase in Loss	1	2.11	5	5.25	1	24.11
3.	Non-disclosure of material facts	-	-	3	23.73	-	-
4.	Errors of classification	1	370.30	-	-	1	0.47

Important comments in respect of account of a Statutory Corporation, i.e. Uttarakhand Pey Jal Sansadhan Vikas Evam Nirman Nigam for the year 2010-11 are stated below:

- Non-provision of interest of ₹ 15.76 crore on loan of ₹ 21.02 crore taken from Uttarakhand Government during 2002-03 to 2008-09 resulted in understatement of Liabilities as well as Deficit by ₹ 15.76 crore.
- Non-provision of interest of ₹ 0.90 crore (upto 2006-07) payable to Uttar Pradesh Jal Nigam resulted in understatement of Liabilities as well as Deficit by ₹ 0.90 crore.
- The Nigam showed interest accrued on General Provident Fund amounting to ₹ 6.69 crore as its income in contravention of its accounting rules/practice. The interest income should have been shown separately.

#### **4.1.10 Internal Audit/Internal Control System**

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 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 in respect of fourteen Companies for the year 2011-12 are given in **Table 4.1.12** below:

**Table 4.1.12**

<b>Sl. No.</b>	<b>Nature of comments made by the Statutory Auditors</b>	<b>Number of companies where recommendations were made</b>	<b>Reference to serial number of the companies as per Appendix 5.2</b>
1.	Non-fixation of minimum/ maximum limits of store and spares	3	A2, A 10, A14
2.	Absence of internal audit system commensurate with the nature and size of business of the Company	6	A5, A10, A13, A14 , A 2 & A17
3.	Non maintenance of proper records showing full particulars including quantitative details, situations, identity number, date of acquisitions, depreciated value of fixed assets and their locations	6	A5, A2, A10, A13, A14 & A12

#### 4.1.11 Status of placement of Separate Audit Reports (SARs)

The audit of Uttarakhand Parivahan Nigam is conducted under Section 33(2) of the State Road Transport Corporation Act, 1950, whereas audit of Uttarkhand Pey Jal Sansadhan Vikas Evam Nirman Nigam is entrusted to the CAG under Section 52(3) of the Uttar Pradesh Water Supply and Sewerage Act, 1975. The status of placement of various Separate Audit Reports (SARs) issued by the CAG on the accounts of Statutory Corporations in the Legislature by the Government, is given in **Table 4.1.13** below:

**Table 4.1.13**

Sl. No.	Name of Statutory corporation	Year up to which SARs placed in Legislature	Year for which SARs not placed in Legislature		
			Year of SAR	Date of issue to the Government	Reasons for delay in placement in Legislature
1.	Uttarakhand Parivahan Nigam	2004-05	2005-06 to 2008-09	NA	NA
2.	Uttarakhand Pey Jal Sansadhan Vikas Evam Nirman Nigam	2009-10	2010-11	NA	NA

The delay in placement of SARs weakens the legislative control over Statutory Corporations and dilutes the latter's financial accountability.

#### 4.1.12 Disinvestment, Privatisation and Restructuring of PSUs

The State Government had not formulated any plan of disinvestment, privatisation or restructuring of any of the PSUs.

#### 4.1.13 Reforms in Power Sector

The State constituted Uttarakhand Electricity Regulatory Commission (UERC) in September 2002 under Section 17 of the Electricity Regulatory Commission Act, 1998 with the objectives of rationalisation of electricity tariff, advising in matters relating to electricity generation, transmission and distribution in the State and issue of licenses. During the year 2011-12, two orders were issued by UERC on Annual Revenue Requirements and 17 orders on other matters.

#### 4F. Audit findings

##### Highlights

##### Performance Audit of ‘Power Transmission Corporation of Uttarakhand Limited’

- *The transmission network of the Company at the beginning of 2007-08 consisted of 30 Extra High Tension (EHT) Sub-stations (SSs) with a transmission capacity of 4390.50 Mega Volt Ampere (MVA) and 1894 Circuit Kilometre (Ckm) of EHT transmission lines, which was increased to 35 EHT SSs with a transmission capacity of 4990.50 MVA and 2319.20 Ckm of EHT transmission lines.*

*(Paragraph 4.2.8.1)*

- *There was a delay of 15 to 17 months and cost overrun of ₹ 10.08 crore in the construction of Sub-stations. The time overrun of eight to 40 months and a cost overrun of ₹ 71.11 crore was observed in the construction of the lines.*

*(Paragraph 4.2.9.1)*

- *In the construction of Srinagar-Satpuli line (51.70 Ckm) and Srinagar II-Satpuli line (64 Ckm), there was a delay of six year and seven year from its scheduled completion date, despite incurring expenditure to the tune of 391.30 per cent and 123.64 per cent respectively.*

*(Paragraph 4.2.9.2)*

- *The existing transmission capacity excluding 30 per cent towards redundancy worked out to an excess in the range of 1489.59 MVA to 1774.77 MVA during 2007-08 to 2011-12. The prevalence of overload and high voltage at certain places reflected unscientific planning in creation of transmission network.*

*(Paragraph 4.2.10)*

- *The Company violated (April 2010) the grid discipline on nine occasions resulting in payment of penalty of ₹ nine lakh to Central Electricity Regulatory Commission (CERC).*

*(Paragraph 4.2.14.4)*

- *As a part of Disaster Management (DM) programme, mock drill operations should have been carried out by the Company once in a year. However, no mock drill operation was carried out by the Company in any of the Sub-stations during 2007-08 to 2011-12.*

*(Paragraph 4.2.15.1)*

- *The loss of the Company has decreased substantially by 85.19 per cent from ₹ 13.98 crore in 2007-08 to ₹ 2.07 crore in 2011-12. Further, the debt-equity ratio of the Company has decreased from 6.02:1 to 3.12:1 during the 2007-08 to 2011-12. The main reason for decrease in debt-equity ratio is conversion of Government loan into equity from 2009-10 and onwards.*

*(Paragraph 4.2.17.1)*

- *The system availability of the Company was satisfactory with 99.24, 99.14 and 99.50 per cent during the years 2009-10, 2010-11 and 2011-12 respectively. For this meritorious performance, the Company was awarded (March 2012) with a Gold Shield for system availability by the Ministry of Power (MoP), Government of India (GoI).*

*(Paragraph 4.2.19)*

- *Though the Company's closing stock holding was equal to 22 months consumption in 2007-08, which has increased to 29 months consumption in 2011-12, yet it has neither fixed any minimum/ maximum level for inventory holding nor done any A/B/C level analysis, or fixed any reorder level for the requirement of material.*

*(Paragraph 4.2.20.2)*

- *The year-wise cumulative performance records of the Sub-stations and lines were neither being maintained nor consolidated for evaluation of annual performance of the Sub-stations and lines. The steps taken for improvement in the performance of lines and Sub-stations of the transmission system were not being appraised to the Board of Directors (BOD) of the Company either annually/quarterly/monthly, reflecting the minimal importance being given to the Management Information System (MIS) reports.*

*(Paragraph 4.2.21.1)*

- *The internal audit work of the Company was outsourced to the Chartered Accountants firms. However, it was observed that the standard of internal audit by the outsourced agency was not up to the mark as the internal auditors firm neither reported on system deficiencies nor pointed out significant observations and restricted their report only to the extent of arithmetical accounting errors and overlooked propriety side of expenditure.*

*(Paragraph 4.2.21.4)*

- *In a span of five years ended 31 March 2012, the Audit Committee met only on seven occasions instead of minimum number of 10 times. Further, as per Section 292A (5) of the Companies Act 1956, the internal auditors should have also attended all the meetings, but the same was not complied with, in any of the meetings.*

*(Paragraph 4.2.21.4)*

#### **Audit of Transactions**

- *The delay in transferring/remittance of balances by the bank in contravention of Memorandum of Understanding and weakened internal control system of the Company (Uttarakhand Power Corporation Limited) resulted in loss of interest of ₹ 80.99 lakh.*

*(Paragraph 4.3)*

- *The failure of the Company (State Infrastructure and Industrial Development Corporation of Uttarakhand Limited) to cancel the plot as per terms and conditions of allotment resulted in non-allotment of plot to other buyer, which led to consequent loss of ₹ 3.14 crore to the Company as per rate fixed in October 2009.*

*(Paragraph 4.4)*



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## PERFORMANCE AUDIT

### 4.2 Power Transmission Corporation of Uttarakhand Limited

Transmission of electricity and Grid operations in Uttarakhand is managed and controlled by Power Transmission Corporation of Uttarakhand Limited (the Company). The Company was incorporated on 27<sup>th</sup> May 2004 under the Companies Act, 1956 and the Company was having transmission network of 2319.20 Circuit kilometre (Ckm) of Extra High Transmission (EHT) lines and 35 Sub-Stations (SSs) with installed capacity of 4990.50 Mega Volt Ampere (MVA) as on 31 March, 2012. The turnover of the Company was ₹ 132.93 crore in 2011-12. As on 31 March 2012, 867 employees were employed on the rolls of the Company.

#### Highlights

*Planning and Development: The transmission network of the Company at the beginning of 2007-08 consisted of 30 EHT Sub-stations with a transmission capacity of 4390.50 MVA and 1894 Ckm of EHT transmission lines, which was increased to 35 EHT Sub-stations with a transmission capacity of 4990.50 MVA and 2319.20 Ckm of EHT transmission lines.*

*(Paragraph 4.2.8.1)*

*Project Management: There was a delay of 15 to 17 months and cost overrun of ₹ 10.08 crore in the construction of Sub-stations. The time overrun of eight to 40 months and a cost overrun of ₹ 71.11 crore was observed in the construction of the lines.*

*(Paragraph 4.2.9.1)*

*Delay in completion of ongoing project: In the construction of Srinagar- Satpuli line (51.70 Ckm) and Srinagar II- Satpuli line (64 Ckm), there was a delay of six year and seven year from its scheduled completion date, despite incurring expenditure to the tune of 391.30 per cent and 123.64 per cent respectively.*

*(Paragraph 4.2.9.2)*

*Performance of transmission system: The existing transmission capacity excluding 30 per cent towards redundancy worked out to an excess in the range of 1489.59 MVA to 1774.77 MVA during 2007-08 to 2011-12. The prevalence of overload and high voltage at certain places reflected unscientific planning in creation of transmission network.*

*(Paragraph 4.2.10)*

*Grid Management: The Company violated (April 2010) the grid discipline on nine occasions resulting in payment of penalty of ₹ nine lakh to Central Electricity Regulatory Commission (CERC).*

*(Paragraph 4.2.14.4)*

*Disaster Management: As a part of Disaster Management (DM) programme, mock drill operations should have been carried out by the Company once in a year. However, no mock drill operation was carried out by the Company in any of the Sub-Stations during 2007-08 to 2011-12.*

*(Paragraph 4.2.15.1)*

*Financial Management: The loss of the Company has decreased substantially by 85.19 per cent from ₹13.98 crore in 2007-08 to ₹2.07 crore in 2011-12. Further, the debt-equity ratio of the Company has decreased from 6.02:1 to 3.12:1 during the 2007-08 to 2011-12. The main reason for decrease in debt-equity ratio is conversion of Government loan into equity from 2009-10 and onwards.*

*(Paragraph 4.2.17.1)*

*Systems availability: The system availability of the Company was satisfactory with 99.24, 99.14 and 99.50 per cent during the years 2009-10, 2010-11 and 2011-12 respectively. For this meritorious performance, the Company was awarded (March 2012) with a Gold Shield for system availability by the Ministry of Power (MoP), Government of India (GoI).*

*(Paragraph 4.2.19)*

*Material Management: Though the Company's closing stock holding was equal to 22 months consumption in 2007-08, which has increased to 29 months consumption in 2011-12, yet it has neither fixed any minimum/ maximum level for inventory holding nor done any A/B/C level analysis, or fixed any reorder level for the requirement of material.*

*(Paragraph 4.2.20.2)*

*Monitoring and Control by Top Management: The year-wise cumulative performance records of the Sub-stations and lines were neither being maintained nor consolidated for evaluation of annual performance of the Sub-stations and lines. The steps taken for improvement in the performance of lines and Sub-stations of the transmission system were not being appraised to the Board of Directors (BOD) of the Company either annually/quarterly/ monthly, reflecting the minimal importance being given to the Management Information System (MIS) reports.*

*(Paragraph 4.2.21.1)*

*Internal Controls and Internal Audit: The internal audit work of the Company was outsourced to the Chartered Accountants firms. However, it was observed that the standard of internal audit by the outsourced agency was not up to the mark as the internal auditors firm neither reported on system deficiencies nor pointed out significant observations and restricted their report only to the extent of arithmetical accounting errors and overlooked propriety side of expenditure.*

*(Paragraph 4.2.21.4)*

*Audit Committee: In a span of five years ended 31 March 2012, the Audit Committee met only on seven occasions instead of minimum number of 10 times. Further, as per Section 292A (5) of the Companies Act 1956, the internal auditors should have also attended all the meetings, but the same was not complied with, in any of the meetings.*

*(Paragraph 4.2.21.4)*

#### **4.2.1 Introduction**

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 recognized the need for development of National and State Grid with the coordination of Central/ State Transmission Utilities. Transmission of electricity and Grid operations in Uttarakhand is managed and controlled by Power Transmission Corporation of Uttarakhand Limited (the Company) which is mandated to provide an efficient, adequate and properly coordinated Grid management and transmission of energy. After unbundling from Uttarakhand Power Corporation Limited, the Company was incorporated on 27 May 2004 under the Companies Act, 1956 and reports to the Department of Power, Government of Uttarakhand.

The Management of the Company is vested with Board of Directors, comprising of four members, appointed by the State Government. The day-to-day operations are carried out by Managing Director, who is the Chief Executive of the Company and is assisted by Director (Projects), Director (Finance), Director (O&M), Director (Human Resources) and Company Secretary. During 2007-08, 7,300.37 Million Units (MUs) of energy was transmitted by the Company which increased to 12,069.84 MUs in 2011-12, registering an average increase of 65.33 per cent during 2007-12. As on 31 March 2012, the Company was having transmission network of 2,319.20 Circuit Kilometre (Ckm) and 35 Sub-stations (SSs) with installed capacity of 4,990.50 Mega Volt Ampere (MVA), capable of transmitting

annually 39345.10<sup>10</sup> Million Units (MU) at 400 Kilo Volt (KV), 220 KV and 132 KV.

The turnover of the Company was ₹ 78.02 crore in 2007-08, which increased to ₹ 132.93 crore in 2011-12 and was equal to 0.21 and 0.22 *per cent* of State Gross Domestic Product in 2007-08 and 2011-12 respectively. As on 31 March 2012, 867 employees were on the rolls of the Company.

This is the first performance audit of the Company, hence none of the Performance Audits on the activities of the Company was earlier included in the Audit Report of the Comptroller and Auditor General of India.

#### **4.2.2 Scope and Methodology of Audit**

The present Performance audit conducted during May 2012 to October 2012 covers performance of the Company for the last five years period from 2007-08 to 2011-12. Audit examination involved scrutiny of records of different wings at the Head Office, State Load Dispatch Centre (SLDC), two Zones, each headed by Chief Engineer and six divisions out of 22 divisions, headed by Executive Engineers. The division offices carry out the work of capital/revenue nature and are also the accounting units. Out of 22 divisions, six divisions were selected through Simple Random Sampling without Replacement method.

During the period covered in Performance audit, the Company constructed five SSs (capacity: 600 MVA) and ten transmission lines/ 11 bays (length: 425.20 Ckm). Out of this, record for construction of three SSs (capacity: 320 MVA), and five transmission lines (length: 213.53 Ckm) were examined.

The methodology adopted for attaining audit objectives with reference to audit criteria consisted of explaining audit objectives to the top management during entry conference, scrutiny of records at Head Office as well as 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 during exit conference and issue of draft Performance Audit report to the Management/ Government for their comments.

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<sup>10</sup>  $4990.50 \times 0.90 \text{PF} \times 24 \times 365 / 1000 = 39345.10 \text{ MUs}$ .

### **4.2.3 Audit Objectives**

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 Uttarakhand Electricity Regulatory Commission and assessment of impact of failure to plan, if any;
- The 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;
- A Disaster Management System was set up to safeguard its operations against unforeseen disruptions;
- An effective and efficient Financial Management system with emphasis on timely raising and collection of bills and filing of Aggregate Revenue Requirement (ARR) for tariff revision in time was in place;
- There was an efficient and effective system of Procurement of material and inventory control mechanism;
- Efficient and effective energy conservation measures were undertaken in line with the 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.

### **4.2.4 Audit Criteria**

The audit criteria 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 Company;
- Standard procedures for award of contracts with reference to principles of economy, efficiency, effectiveness, equity and ethics;
- Annual Revenue Requirements (ARRs) filed with Uttarakhand Electricity Regulatory Commission for tariff fixation, Circulars, Manuals and Management Information System (MIS) reports;
- Manual of Transmission Planning Criteria (MTPC);

- Code of Technical Interface (CTI)/ Grid Code consisting of planning, operation, connection codes;
- Norms/Guidelines issued by Uttarakhand Electricity Regulatory Commission (UERC)/Central Electricity Authority (CEA);
- Report of the Committee constituted by the Ministry of Power (MoP) recommending the “Best Practices in Transmission”;
- Report of the Task Force constituted by the Ministry of Power (MoP) to analyse critical elements in transmission project implementation; and
- Reports of Regional Power Committee (RPC)/ Regional Load Dispatch Centre (RLDC).

#### **4.2.5 Audit Methodology**

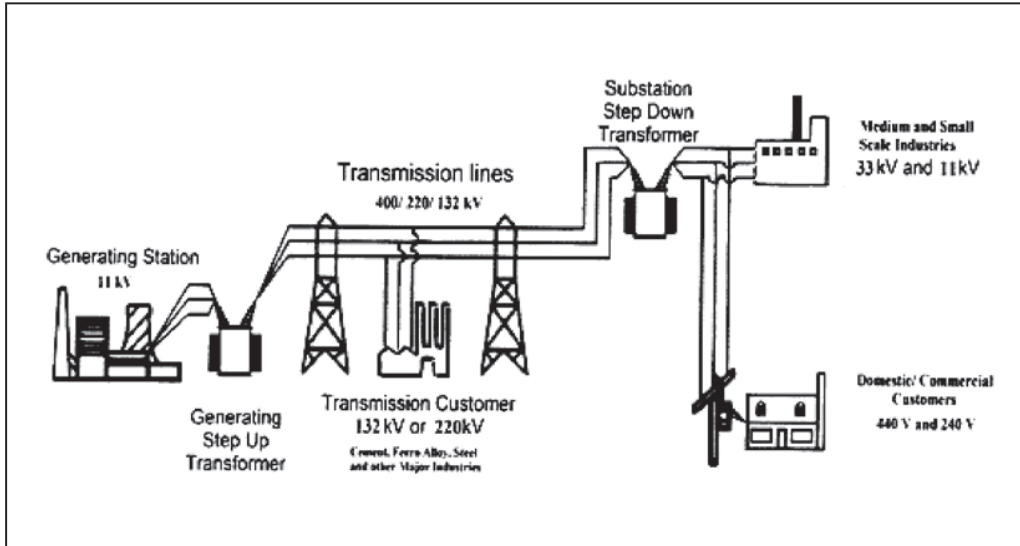
Audit followed the following methodologies:

- Review of Agenda notes and minutes of Company, 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 UERC;
- Scrutiny of records relating to project execution, procurement receipt of funds and expenditure;
- Interaction with the Management during entry and exit conference; and
- Issue of draft Performance Audit report to the Management/ Government for their comments.

#### **4.2.6 Brief description of transmission process**

Transmission of electricity is defined as bulk transfer of power over long distances at high voltages, generally at 132 Kilo Volt (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 loss in transmission and to increase efficiency in the Grid. Sub-Station (SSs) 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 equipments which are within as well as out of the system. The step up transmission SSs at the generating stations use transformers to increase the voltages for transmission over long distances.

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



#### 4.2.7 Audit Findings

Audit objectives, criteria and methodology of this Performance audit were explained to the management of the Company during an 'Entry Conference' held on 25 May 2012. Audit findings were referred to the Company and the State Government on 31 October 2012 and were also discussed in an 'Exit Conference' held on 20 December 2012. The Exit Conference was attended by the Managing Director, Director (Project), Director (Finance), Director (HR) and Chief Engineers of different wings of the Company. The Company replied to audit findings in December 2012. The State Government had not furnished the replies to the audit findings separately. However, the replies and views expressed by them in exit conference had been considered while finalizing this Performance Audit report. The audit findings are discussed in subsequent paragraphs.

#### 4.2.8 Planning and Development

##### 4.2.8.1 National Electricity Policy/Plan (NEP)

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 (NEP) in coordination with all concerned agencies

like Transmission Utility, State Regulatory Commission, Central Electricity Authority (CEA) and Central Electricity Regulatory Commission (CERC). At the end of 10<sup>th</sup> Plan (March 2007), the transmission system in the country at 765/HVDC/400/230/220/KV stood at 1.98 lakh Circuit Kilometre (Ckm) of transmission lines which was planned to be increased to 2.93 lakh Ckm by the end of 11<sup>th</sup> 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 Mega Watt (MW) and further planned to add 23,600 MW in 11<sup>th</sup> plan bringing the total inter-regional capacity to 37,700 MW.

The Company's transmission network at the beginning of 2007-08 consisted of 30 Extra High Tension Sub-stations with a transmission capacity of 4,390.50 Mega Volt Ampere and 1,894 Ckm of Extra High Tension transmission lines. The transmission network as on 31 March 2012 increased to 35 Extra High Tension Sub-stations with a transmission capacity of 4,990.50 Mega Volt Ampere and 2,319.20 Ckm of Extra High Tension transmission lines.

The Company is responsible for planning and development of the intra-state transmission system. Assessment of demand is an important pre-requisite for planning the capacity addition. The Company had not prepared the State Electricity Plan for Uttarakhand Electricity Regulatory Commission (UERC) though required under Grid Code issued by UERC on 9 April 2007. However, the Company submitted investment plan to UERC every year, incorporating the details of works to be taken up for transmission works on the basis of requirement submitted by the field offices and keeping in view the load position. However, this was not linked up with the load forecasting as the Company had data for current load position, but no trend analysis was done to enumerate the projected load growth.

The Management stated (December 2012) that the Company had submitted planning and development plan with complete transmission network including demand of distribution company (UPCL) and Power evacuation schemes to Uttarakhand Electricity Regulatory Commission (UERC) in August 2012. However, the fact remained that the Company delayed submission of its state electricity plan even after a gap of five years ending 31 March 2012.

#### **4.2.8.2 Transmission network and its growth**

The Company prepared five year plan (2007-12) with the target of establishing of 580 Mega Volt Ampere (MVA) transmission capacity and 558.51 Circuit Kilometre (Ckm) transmission lines. Against the above, Company achieved 600 MVA



transmission capacity with five Sub-stations and 425.20 Ckm (76.13 per cent) transmission line, leaving a shortfall of 133.31<sup>11</sup> Ckm transmission lines during 2007-08 to 2011-12. The main reasons for shortfall were delay in processing the case for forest clearance and in getting clear right of way. The transmission capacity of the Company at Extra High Tension (EHT) level during 2007-08 to 2011-12 is detailed in **Appendix 4.5**.

During 2008-09, the Company failed to construct any transmission line or augmentation of transmission capacity. The five year plan of the Company was not in accordance with the guidelines of National Electricity Plan (NEP) and Grid Code issued by Uttarakhand Electricity Regulatory Commission (UERC) in April 2007, as it does not adequately incorporate the details regarding interstate and intra-state transmission system. It also does not segregate the needs for additional equipment such as transformers capacitors and reactors etc., which the Company may require in near future.

The particulars of voltage-wise capacity additions planned, actual additions, shortfall in capacity etc. during the period 2007-12 are given in **Appendix 4.6**. The Company did not obtain the forest clearance and clear Right of Way (ROW) in advance hence, the target of construction of 558.51 Ckm transmission line could not be achieved.

#### **4.2.9 Project management of transmission system**

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 (MoP), Government of India (GoI) constituted a Task Force on transmission projects (February 2005) with a view to:

- analyze the critical elements in transmission project implementation;
- implementation of the best practices of CTU and STUs; and
- suggest a model transmission project schedule of 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

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<sup>11</sup> Target of new 132 KV line was 273.90Ckm- achievement 173.20Ckm =short fall 100.70 Ckm and Target of new 220 Kv line was 284.61 Ckm- achievement 252Ckm =short fall 32.61Ckm.

advance/ parallel to project appraisal and approval phase and go ahead with construction activities, once Transmission Line Project sanction/ approval is received;

- Standardise designs of tower fabrication so that 6-12 months can be saved in project execution.

**4.2.9.1** The Company did not follow the elaborate guidelines given by the Task Force Committee for timely completion of the projects. Consequently, there was delay in execution of work of some Sub-stations during 2007-12, as detailed in **Table 4.2.1** below:

**Table 4.2.1**  
**Execution of Sub-Stations**

(₹ in crore)

Capacity in KV	Name of SSs	Scheduled date of completion	Actual date of completion (time overrun)	Awarded cost	Actual cost (cost overrun)	Reason for time and cost overrun
220	Mahuakheraganj Kashipur	June 2010 extended upto September 2011	November 2011 (17 months)	74.99	74.99	Extra time taken for quality assurance of its control and relay panels by the Company.
132	Satpuli	August 2009	January 2011 (15 months)	4.43	9.58 (5.15)	Delay in providing land to the contractor by the Company.
132	Simli	January 2008	July 2009 (17 months)	6.40	11.33 (4.93)	Delay in providing land to the contractor by the Company.

The management of the Company did not furnish any reply in the above cases.

Audit further noticed that the Company could not complete the work in respect of Transmission lines, namely Maneri Bhali II- Rishikesh, DC Ghuttu-Ghansali, Ghansali-Chamba and Satpuli-Kotdwar due to delay in obtaining clearances, such as right of way, forest clearance, etc. resulted in time overrun ranging eight months to 40 months and cost overrun of ₹ 71.11 crore, as detailed in **Appendix 4.7**.

The replies of the management were as follows:

- **220 KV Maneri Bhali II Rishikesh line:** The Management stated (December 2012) that it was due to delay in obtaining of forest clearance (May 2008). The reply of the management was not convincing as the Company started the preparation of forest case after award of contract and the original case, which was submitted in August 2005, and was returned by Forest Department in September 2005 with their queries. After resubmission of forest case the in-principle approval was obtained in December 2007 and final approval in May 2008. The Company had to bear the cost overrun due to violation of above

- mentioned recommendation of the task force of MoP, GoI on the transmission projects.
- **220 KV DC Ghuttu-Ghansali :** The Management stated (December 2012) that the time overrun was due to delay in clearance of forest gallery. The tree cutting was completed in October 2011. The reply of the management was not convincing as the forest approval of the project was obtained in April 2009 and the tower for this line designed by the Company failed during first testing, its design was modified and re-testing was carried out, which resulted in the delay of work.
  - **132 KV Satpuli-Kotdwar line:** The Management stated (December 2012) that the main reason for the delay and cost overrun was due to change in Bill of Quantity (BOQ) by the Company to suit the hilly terrain. Also, the forest clearance of the line was obtained in April 2008 and forest gallery was cleared in January 2010. The reply of the management was not convincing as the Company received in-principle approval from the forest department in March 2006. The main reason for delay was extra time taken by the Company to fulfill the procedural requirement of the Forest Department.

The Company incurred ₹ 140.91 crore on above lines, out of which only ₹ 54.03 crore was allowed by Uttarakhand Electricity Regulatory Commission (UERC) upto March 2012 and the Company had to bear the remaining amount from its own resources.

#### 4.2.9.2 Delay in completion of ongoing projects

The Company entered into two agreements with a private firm<sup>12</sup> for construction of 132 Kilo Volt (KV) DC transmission line Srinagar –Satpuli (51.70 Circuit Kilometer - Ckm) and 132 KV Srinagar II – Simli (64 Ckm) vide agreements dated August 2004 and October 2005, amounting to ₹ 10.92 crore and ₹ 38.96 crore respectively. The scheduled dates of completion of above projects were August 2006 and six months from forest clearance respectively.

Audit noticed (August 2012) that in case of Srinagar –Satpuli line (51.70 Ckm), the construction of referred transmission line could not be completed even after a delay of six years from the scheduled completion date of August 2006 as the Company failed to provide clear ROW to the contractor till July 2012, due to which, the Company incurred ₹ 53.65 crore (391.30 per cent above) including incidental expenditure till July 2012, without any fruitful result.

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<sup>12</sup> M/s Ranjit Singh & Company.

The Management stated (December, 2012) that the cost of the project increased because of change in tower design and delay in obtaining the land of Nagar Palika, Pauri, where one tower was to be erected and the work was completed in September 2012. However, the fact remained that the Company should have identified the clear route of Right of Way (ROW) at the time of detailed survey and the required statutory clearances from the different authorities should be obtained in advance.

In respect of Srinagar II –Simli line (64 Ckm), the contractor completed the construction work on non-forest area of 22.38 Ckm (34.97 *per cent*) of transmission line. The Company incurred ₹ 48.17 crore (23.64 *per cent* above) on transmission line including incidental charges till July 2012. Despite incurring expenditure to the tune of 123.64 *per cent* of the awarded cost, the Company could construct only 34.97 *per cent* of the said line in the area other than forest land. Even after passage of seven years of award of contract as the contract was awarded in October 2005 and the scheduled completion date was six month from forest clearance as per agreement, the forest clearance for the remaining area was yet to be obtained.

The Management stated (December, 2012) that the in-principle approval of forest clearance was obtained in April 2010 and final approval would be provided after transfer of land, which was under process. The reply of the Company was not convincing since as per guidelines of Ministry of Environment and Forest (MoEF), the contract should have been awarded only after getting the forest clearance. In this case, the contract was awarded in October 2005 and the case for forest clearance was submitted to Nodal office, Dehradun as late as in April 2009, after which the case remained shuttling between the Company and the Nodal officer for fulfilling conditions till December 2012. The major remaining bottleneck was inability of the Company and the Government to provide compensatory aforestation land. Had the Company followed the MoEF guidelines, the cost and time overrun could have been minimized.

#### **4.2.9.3 Generation capacity and Transmission facilities**

National Electricity Policy (NEP) envisaged augmenting transmission capacity taking into account the planning of new generation capacities, to avoid mismatch between generation capacity and transmission facilities. The transmission facilities to be provided by the Company were required to match with the generating company's generation plans.

Audit noticed (June 2012) that during the review period, only two generation stations namely Maneri Bhali-II (304 Mega Watt) and at Bhilagna (24 Mega Watt)

were commissioned. The first work was completed by a generation utility of the State in February 2008 and the second by a private generator<sup>13</sup> in November 2011. The Company was successful in transmitting power from the generation stations.

#### **4.2.9.4 Sluggishness in implementation of Uttarakhand Integrated Transmission Project (UITP) scheme**

The Company proposed (September 2006) to the Central Electricity Authority (CEA) to take up Integrated Transmission system for development of comprehensive power evacuation system in Uttarakhand and integrated network for quality power supply in the State. The proposed project envisaged power evacuation system for 5406.50 Mega Watt of proposed power generation in Yamuna, Bhagirathi, Alaknanda and Sharda Basins at an estimated cost of ₹ 2446.74 crore, based on the 4th quarter price of year 2004.

The scheme was approved by CEA in January, 2007 and by the Ministry of Power, Government of India in May 2007. The project was funded by Power Finance Corporation (PFC) and Asian Development Bank (ADB) through Government of India (GoI) and Government of Uttarakhand (GoU). The proposed projects were scheduled to be completed by March, 2012. Under Uttarakhand Integrated Transmission Project (UITP) scheme, the Company proposed construction of 1,887 Ckm of line and 2,190 Mega Volt Ampere Sub-stations during 2007-08 to 2011-12. The details of estimated cost and target date of completion of the proposed UITP scheme are given in **Appendix 4.8**.

During implementation of UITP scheme audit noticed the following:

#### **4.2.9.5 Award of Contracts**

Audit noticed (August 2012) that the Company prepared 20 DPRs with the estimated cost of ₹ 2,080.25 crore for different projects against which only 10 agreements amounting to ₹ 603.43 crore were finalized and awarded. Out of this, only three projects<sup>14</sup> were completed and out of the three, one namely 220 Kilo Volt Double Circuit line from 400 KV Sub-Station Roorkee to 220 KV Sub-station Roorkee was

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<sup>13</sup> M/s Bhilagna Hydro Power Limited.

<sup>14</sup> 220 KV DC Line from 400 KV SS Roorkee to 220 KV SS Roorkee (Schedule completion date: 31.12.2010 and actual completion date 24.11.2010), 220 KV DC line from Bhilangana-III to Ghansali line (Schedule completion date:17.01.2010 and actual completion date 04.11.2011) and 220 Ghansali - Chamba line (Schedule completion date:25.04.2008 and actual completion date 30.09.2009).

completed on time (November 2010) and the remaining two were completed with a delay of 17 to 22 months.

Audit further noticed that the Company also took up the projects in isolation instead of taking them up as a package. The Company awarded the contract for construction of 400 Kilo Volt Ampere Srinagar Sub-station, but did not initiate to take up the work of connected main associated line i.e. Srinagar-Kashipur line. Similarly, the Company awarded the contract for construction of 400 KV DC Vishnugad-Kuwaripass line, but the contract for the construction of connected 400 KV Gas Insulated Substation (GIS) at Kuwaripass has not yet been awarded (December 2012).

The Management stated (December, 2012) that the 400 KV SS to Srinagar power house line had been awarded to a contractor<sup>15</sup> on 06<sup>th</sup> May 2011. In addition to this, 220 KV Barambari-Srinagar line had been awarded to another contractor<sup>16</sup> on 23.04.2011. Srinagar-Kashipur line will be required when all the generation of Alakhananda basin will take place. Kuwaripass Sub-station will be awarded as per the requirement of the generators. The reply of the management was not convincing as the case for approval of 400 KV DC Srinagar – Kashipur line was under submission to Central Electricity Regulatory Commission (CERC) and the approval for the 400 KV DC Srinagar- Kashipur line should have been obtained during the approval of 400 KV Sub-station Srinagar as it is the main associated line of the Sub-station. The work of Sub-stations and its associated line should have been started simultaneously, so as to serve the intended purpose of load sharing of Kashipur Sub-station and strengthening of network in the Kumaon region, which led to delay in completion of the scheme.

#### **4.2.9.6 Non-recovery of Interest**

Audit noticed (August 2012) that the Company awarded (February 2009) the contract for construction of 400 Kilo Volt Double Circuit Loharinagpala–Koteshwar line to a private company<sup>17</sup> for ₹ 185.68 crore. As per the terms and conditions of the contract, the Company paid (March 2009) mobilization advance of ₹ 18.57 crore to the contractor with interest payable at a rate of 9.07 *per cent* per annum.

Consequent upon the decision (January 2011) of Government of Uttarakhand to scrap the Hydro Projects, the Company terminated the contract as the construction

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<sup>15</sup> M/s Tata Projects.

<sup>16</sup> M/s Hytro Power corporation Limited.

<sup>17</sup> M/s L & T Limited.

of line was not required and requested (August 2011) the contractor to return the mobilization advance along with interest. The contractor did not respond to the Company's request, hence, the Company encashed (December 2011) the Bank Guarantee of the contractor for ₹ 18.57 crore.

The Management accepted the facts and stated (December 2012) that the amount of interest on mobilization advance will be recovered from the contractor's bills of ₹ 44.04 crore or performance guarantee of ₹ 18.59 crore, which had been retained by the Company and which was valid till May 2013.

However, the fact remained that after passing of 21 months from the date of termination the contract, the recovery of interest of ₹ 4.49 crore<sup>18</sup> on mobilization advance was pending (December 2012) while the same was required to be recovered as per terms and conditions of the contract.

#### **4.2.9.7 Non-charging of interest on mobilization advance**

The Company entered (April 2011) into three agreements with a private company<sup>19</sup> amounting to ₹ 64.38 crore, ₹ 24.63 crore and ₹ 60.59 crore for execution of work relating to construction of 400 Kilo Volt Double Circuit Tapovan-Pipalkoti-Srinagar & LILO of 400 KV DC Vishnuprayag-Muzaffarnagar transmission line at Pipalkoti, 220 KV DC Lata Tapovan-Joshimath transmission line and 220 KV DC Joshimath-Pipalkoti transmission line respectively. As per the terms and conditions of the agreement, the Company released ₹ 14.95 crore (10 *per cent* of the contract value) to the contractor as mobilization advance during September 2011 to November 2011. The bid document was silent on the fact, whether the mobilization advance was interest bearing or interest free.

Audit noticed (August 2012) that the condition of providing interest free mobilization advance to the contractor was not approved by the Board of Directors as required. It was further noticed that the clause of mobilization advance was amended (September 2011) by the Company and it was decided to charge the interest on mobilization advance at the rate of 9.07 *per cent*. The contractor did not accept the amended clause regarding interest on mobilization advance with the remarks that there was no mention of interest in the bidding documents as well as the signed contract. Finally, the Company decided (October 2011) that the clause of interest bearing mobilization advance shall not be applicable, although the Company was paying interest at the rate of 11 *per cent* to REC and PFC on the credits availed from them.

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<sup>18</sup> ₹ 18.57 x 32 x 9.07/12 x 100= ₹ 4.49 crore.

<sup>19</sup> M/s Tata project Limited, Secunderabad.

Thus, non-inclusion of interest clause in the bid document and agreement led non-charging of interest of ₹ 1.47 crore<sup>20</sup> on mobilization advance upto December 2012.

The Management stated (December 2012) that the project was funded by ADB and as per guidelines of ADB, there is no provision for charging of interest on mobilization advance and the management would ensure that such matter will be taken care of in the future.

#### **4.2.9.8 Unresolved cost recovery mechanism of Uttarakhand Integrated Transmission Project (UITP) scheme**

Under the Uttarakhand Integrated Transmission Project (UITP) scheme, Asian Development Bank (ADB) had to provide funds to the tune of US \$ 250 million and Power Finance corporation (PFC) had to provide ₹ 800 crore. In respect of ADB funds, 70 *per cent* of the fund was to be routed through Government of India (GoI) and Government of Uttarakhand (GoU), out of which 90 *per cent* was to be in the form of grant and 10 *per cent* in form of loan. The remaining 30 *per cent* was to be provided by GoU in the form of equity. In respect of PFC, 70 *per cent* of the funds were to be provided in the form of loan at applicable rate of interest and 30 *per cent* was to be provided by GoU as equity.

Audit noticed (August 2012) that the Company had already incurred an expenditure ₹ 41.97 crore on the above scheme up to June 2012 and had entered into 10 contracts valuing ₹ 603.43 crore up to March 2012. Six contracts with the estimated cost of ₹ 1218.80 crore were in the process of finalization. However, the probability of realization of above investment through tariff seems to be remote because of the following:

The Uttarakhand Electricity Regulatory Commission (UERC) had not agreed (December 2011) to allow above investment for realization through tariff, as more than 50 *per cent* power evacuated from the network will be utilized for export to the national grid and the investment was deemed Inter-State Transmission facility. Hence, the permission should be obtained from the Central Electricity Regulatory Commission (CERC). The UERC further stated (December 2011) that the Company shall be responsible for recovery of overall annual cost of the scheme and for the purpose, the licensee (the Company) should put in all efforts to enter into adequate number of Transmission Service agreements with the beneficiaries in commensuration with the overall capacity of SS/lines proposed to be developed under the UITP scheme.

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<sup>20</sup> ₹ 14.95 crore X 9.07 X 13/12X100= ₹ 1.47 crore.



The Company, however, failed to develop cost recovery mechanism for the investment in the scheme till date (December 2012). As a result, it would be difficult for the Company to repay the loan and interest besides, maintenance of the Sub-stations and lines to be created under this scheme.

The Management stated (December, 2012) that the integrated power transmission scheme was introduced for the first time by any of the transmission utilities in the country and the Company developed this scheme taking into account that all the hydro generators in different valleys will be connected in the network. The saving of forest by constructing multi-circuit tower with bundle conductors at extra high voltage will facilitate intra state and the interstate power exchanges by strengthening Uttarakhand Grid and effectively connect it with northern grid of India. The matter in respect of unresolved cost recovery mechanism had been put before the CERC by the Company. However, the fact remained that the matter was pending with CERC and the Company had no mechanism for recovery of the investment made in the scheme till date (December 2012).

#### **4.2.9.9 Non-realization of ₹ 6.29 crore on account of shifting of line**

Audit noticed (June 2012) that the existing Rishikesh- Dharasu and Chamba -Dharasu transmission lines were required to be shifted as the lines came under the submergence area of Tehri Dam reservoir. However, the work of shifting of line was incomplete upto December 2012. The Company claimed (January 2010) ₹ 7.79 crore from Tehri Hydro Development Corporation Limited (THDC) in connection with shifting of 15 towers of above referred lines. The THDC paid ₹ 1.50 crore in July 2010. The amount of ₹ 6.29 crore could not be recovered from THDC by the Company.

The Management accepted the audit observation and stated (December 2012) that efforts were being made to recover the amount from THDC.

#### **4.2.9.10 Non-achieving the target of construction of line**

For the purpose of connectivity of Sub-stations, the Company entered into an agreement (March 2010) for construction of 132 Kilo Volt (KV) DC transmission line from 220 KV Sub-station (SS) Pithoragarh (PGCIL) to 132 KV Sub-station Pithoragarh with a private firm<sup>21</sup> for ₹ 5.46 crore with the scheduled date of completion (11-03-2011). Audit noticed (June 2012) that the Company paid ₹ 0.54 crore as mobilization advance to the contractor in January 2011. The construction work of above line could not be started till June 2012.

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<sup>21</sup> M/s Kashmiri Lal Constructions.

The Management stated (June 2012) that after notification of route survey, public raised objections in reference to notification dated 07 April 2010. After changing the proposed route and persuasion, no objection was received from public and forest case for 4.68 hectare land for the new route was submitted to forest department in February 2011. The in-principle approval was received (April 2011) from Ministry of Environment and Forests for use of forest land with the condition to transfer the double compensatory land in favour of Forest Department. The matter of transfer of land and signing of lease deed was in process and the said work could not be started due to above reasons.

The reply of the management was not convincing as clear Right of Way (ROW) and forest clearance were basic pre-requisites before commencement of construction work of transmission line. The Company overlooked these statutory clearances and awarded the contract, resulting in delay in the start of work. Further, time and cost overrun of the project could not be ruled out.

#### **4.2.9.11 Critical condition of installed towers**

Sixteen towers of 132 Kilo Volt (KV) Bindal-Rishikesh–Majra Double circuit line pass through the river bed of Bindal river in Dehradun city, out of which 14 towers were in a critical condition as these face a threat of erosion of its foundation and damage of revetment wall in every rainy season due to flood in the river as evident from the photographs shown below:



*File photo of position of tower with foundation at Bindal River, Dehradun*



*File photo of position of tower with damaged foundation at Bindal River, Dehradun*

Audit noticed (July 2012) that the Company faced difficulty in maintaining the power supply in the area in every rainy season due to increased flow of water in the river. During 2007-08, tower 18-A collapsed in August 2007 due to heavy flood. This resulted in complete blackout of the area for more than 48 hours and partially affected the power supply for more than one month.

Audit further noticed that during 2007-08 to 2011-12, the Company incurred an expenditure of ₹ 1.10 crore on the protection of foundations of these towers to avoid damage to towers. However, the protection work was temporary in nature and the Company was forced to undertake the same work again and again in every rainy season.

The Management stated (July 2012) that the Company was considering a probable feasible solution to strengthen the foundation of towers. The reply of the Company was not convincing as the Company failed to adopt permanent mechanism for the safety of these towers.

Similarly, two double poles of 66 KV Roorkee-Pathri transmission line pass through the river bed of Solani river, Roorkee which were in a critical position. This line was of significant value as this evacuated the power from Pathri Power house to 132 KV Sub-station Roorkee.

During 2010-11, two poles namely 9 and 11 collapsed in August 2011 due to heavy flood and the power generated by the Pathri Power House could not be evacuated. This resulted in generation loss of 20.40 Mega Watt (MW) per day up to 6 days as the power evacuation could be completely restored by 22 August 2011 only.

The Management accepted the audit observation and stated (December 2012) that adequate precautions were being taken and a new 132 KV tower with enhanced span had now been erected for the safety of transmission line. The management also accepted the generation loss.

#### **4.2.9.12 Loss of ₹ 20.48 crore on construction of transmission line**

For erection, testing and commissioning of 220 Kilo Volt (KV) Double circuit (DC) single Zebra Ghuttu-Ghansali transmission line and supply of material, two agreements were entered (May 2009) with a private firm<sup>22</sup> for ₹ 8.12 crore and ₹ 10.65 crore respectively.

Audit noticed (June 2012) that the sole purpose of construction of above transmission line was to evacuate the power generated (24 MW) by a private generator (M/s BHPL). The expenditure amounting to ₹ 20.48 crore should have been recovered from the said generator, by way of deposit work, as the construction of above line was dedicated to evacuate the power generated by a private generator, but was not recovered. The expenditure incurred on the construction of above line was also disallowed by the Uttarakhand Electricity Regulatory Commission (UERC).

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<sup>22</sup> M/s Ranjit Singh.

The Management stated (December, 2012) that UERC had introduced Regulation 2010 describing the terms and conditions of Intra-State Open Access in 2010 itself. A petition had been filed (June 2012) by the Company in this regard and the matter for determination of transmission charges was under consideration before UERC. However, the fact remained that the Company had violated the procedure for processing applications for grant of connectivity in Intra-State Transmission System (ISTS) issued (December, 2009) by Central Electricity Regulatory Commission (CERC), which provides that any hydro generator of 250 Mega Watt (MW) or above shall not be required to construct a dedicated line at its own cost, as the same shall be constructed by the transmission utilities. In this case the private generator was generating only 24 MW power, so the cost of the construction of line should be borne by it.

Thus, due to violation of CERC guideline on ISTS, the Company suffered a loss of ₹ 20.48 crore as this amount was neither considered by UERC till date (December 2012) nor the Generator paid any amount in this regard to the Company.

#### **4.2.9.13 Under utilization of the installed capacity of Sub-station**

The 132 Kilo Volt (KV) Sub-station at Bhopatwala, Haridwar was commissioned during 2004-05 with the transmission capacity of 80 Mega Volt Ampere (MVA). Audit noticed (August 2012) that the transmission capacity of this Sub-station was utilized in the range of 22.14 MVA to 32.40 MVA only since its commissioning, against the installed capacity of 80 MVA and at 56 MVA after allowing 30 *per cent* margin. This indicated improper assessment of the load by the Company, resulting in non-deriving of full financial gains from the Sub-station.

The Management stated (December 2012) that the distribution company (UPCL) had been requested to redistribute the load through 33 KV ring system. Extra capacity is important as Haridwar is a religious center and having fluctuating load requirement. However, the fact remained that the Kumbh Mela is organized once in twelve years and Aardh Kumbh, once in six years. Thus, the surplus capacity could be utilized for load sharing of nearby Jawalapur Sub-station, which was overloaded. The redistribution of load of the Sub-station was yet not in operation (December 2012).

#### **4.2.10 Performance of transmission system**

The performance of the Company mainly 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 Company with regard to operation and maintenance (O&M) of the system is discussed in the succeeding paragraphs.

The Company, in order to evacuate the power from the Generating stations and to meet the load growth in different areas of the State, constructed transmission lines and Sub-stations at different EHT voltages. A Transformer converts Alternating Current (AC) voltage and current to a different voltage and current at a very high efficiency. The voltage levels can be stepped-up or stepped-down to obtain an increase or decrease of AC voltage with minimum loss in the process. The evacuation is normally done at 220 Kilo Volt (KV) Sub-stations. The details of transmission capacity (220 KV) created *vis-à-vis* the transmitted capacity (peak demand met) at the end of each year by the Company during the last five years ending March 2012 are given in **Table 4.2.2** below:

**Table 4.2.2**

Transmission capacity (in MVA)				
Year	Installed capacity	After leaving 30 per cent towards margin	Peak demand including non-coincident demand	Excess (3-4)
1	2	3	4	5
2007-08	4550.50	3185.35	1410.58	1774.77
2008-09	4550.50	3185.35	1471.76	1713.59
2009-10	4590.50	3213.35	1575.29	1638.06
2010-11	4630.50	3241.35	1751.76	1489.59
2011-12	4990.50	3493.35	1974.11	1519.24

(Source: Information compiled from the data available with the Company)

From the above table, it could be observed that the overall transmission capacity was in excess of the requirement for every year. The existing transmission capacity excluding 30 per cent towards redundancy worked out to an excess in the range of 1489.59 MVA to 1774.77 MVA during 2007-08 to 2011-12. The prevalence of overload, high voltage in certain places<sup>23</sup> reflects unscientific

<sup>23</sup> Kashipur, Pantnagar, Bazpur, Kotdwar, Jawalapur, Manglour, Bhagwanpur and Roorkee

planning in creation of transmission network as discussed in paragraphs 4.2.9.13 and 4.2.11.2.

The Management accepted the audit observation and stated (December 2012) that the Company has excess transmission capacity at present, but the same is due to comprehensive planning taking into account the future load growth and the same may be utilized in near future.

#### **4.2.11 Performance of Transmission Sub-stations**

##### **4.2.11.1 Adequacy of Sub-stations**

Manual on Transmission Planning Criteria (MTPC) stipulates the permissible maximum capacity for different Sub-stations, i.e., 320 Mega Volt Ampere (MVA) for 220 Kilo Volt (KV) and 150 MVA for 132 KV Sub-stations. Scrutiny of the maximum capacity levels of Sub-stations revealed (August 2012) that none of the 220 KV and 132 KV SSs exceeded the permitted levels. It was also observed that every Sub-station of capacity 132 KV and above should have at least two transformers. Further, the Transmission Planning and Security Standards (TPSS) issued by the Uttarakhand Electricity Regulatory Commission (UERC) indicated that the size and number of transformers in the Sub-station 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.

Audit noticed (August 2012) during test-check of 16 Sub-stations of different capacities of Operation and Maintenance (O&M) division at Kashipur, Pantnagar, Roorkee, Haridwar and Dehradun that none of the Sub-station had additional transformer of any capacity to meet out the N-1 contingent situation (additional transformer of any capacity required for meeting out contingent situation at every sub-station), though required as per the Company's instruction (June 2011) for N-1 contingency. It was also observed that in case of outage of a transformer, the existing transformers were not in a position to bear 80 *per cent* of the load.

The Management accepted the audit observation and stated (December 2012) that the increase in capacity was proposed and also new sub-stations were being established to keep the load at each sub-station within permissible limit. However, the Company remained silent on N-1 contingent situation.

##### **4.2.11.2 Over loading against the installed capacity of sub-station**

Audit noticed (August 2012) that the 220 Kilo Volt (KV) Sub-station at SIDCUL, Haridwar, with the transmission capacity of 200 Mega Volt Ampere (MVA), commissioned in 2005-06 for supply of power to the industrial area of SIDCUL, Haridwar, was subjected to over utilization of its transmission capacity in the

range of 168 MVA to 205 MVA, against 140 MVA, after leaving a safety margin of 30 *per cent*, from 2009-10 to 2011-12. The Company had, however, not taken any action to enhance the installed capacity. This may cause heavy damage to the equipments of the Sub-station.

The Management stated (October 2012) that the enhancement of the capacity of the Sub-station was under consideration.

Similarly, 132 KV Sub-station at Jwalapur and Kotdwar with the transmission capacity of 80 MVA were utilized in the range of 73.67 MVA to 81.53 MVA and 65 MVA to 70 MVA respectively, against 56 MVA, after leaving a safety margin of 30 *per cent*, during 2007-08 to 2011-12. The Company did not take any corrective measures to enhance the installed capacity or to divert the extra load to other sub-stations, so as to avoid the damage to the equipments, as mentioned above.

Audit also observed that in 132 KV Sub-station at Bindal and Majra of Dehradun division and 132 KV Sub-station at Roorkee and Bhagwanpur of Roorkee division were also over loaded to the extent of 14 to 42 MVA from 2009-10 onwards after leaving a safety margin of 30 *per cent*. Thus, the Company failed on two fronts, i.e., to meet N-1 contingency needed in case of failure of transformers and above referred existing Sub-stations were running over loaded for more than two years.

The Management accepted the audit observation and stated (December 2012) that the Sub-stations are running overloaded only in contingent condition and preventive action was being taken. However, the fact remained that the above Sub-stations were still running overloaded (December 2012).

#### **4.2.11.3 Voltage management**

The licensees using intra-state transmission system should make all possible efforts to ensure that grid voltage always remains within limits. As per Indian Electricity Grid Code, State Transmission Utilities (STUs) should maintain voltage ranging between 380-420 KV, 198-245 KV and 119-145 KV in 400 KV, 220 KV and 132 KV lines respectively. A test-check (August 2012) in audit in respect of 220/132 KV bus voltage in five Operation and Maintenance divisions (400 KV and 132 KV at Kashipur and 220 KV at Pantnagar) of Kumoan Zone and two divisions (132 KV at Dehradun and 220 KV at Roorkee) of Garhwal Zone for the period January to May of 2007-12 revealed that in eight<sup>24</sup> Sub-stations of 132

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<sup>24</sup> 132 KV Kashipur, 132 KV Pantnagar, 132 KV Bazpur, 132 KV Kotdwar, 132 KV Jawalapur, 132 KV Manglour, 132 KV Bhagwanpur and 132 KV Roorkee.

KV the voltages recorded in the range of 100 KV and 150 KV, which were not maintained within the maximum of 145 KV and minimum of 119 KV voltage limits as per prescribed norm.

The Management stated (December 2012) that the efforts are being made to solve the issue.

#### **4.2.12 Management of Lines**

##### **4.2.12.1 Extra High Tension (EHT) lines**

As stipulated in the Manual of Transmission Planning Criteria (MTPC), permissible line loading should not normally be more than the Thermal Loading Limit (TLL). The TLL limits the temperature attained by the energized conductors and restricts sag and loss of tensile strength of the lines. The TLL limits the maximum power flow of the lines. As per MTPC, the TLL of 132 KV line with Aluminium Conductor Steel Reinforced (ACSR) Panther 210 sq. mm conductor was 366 ampere (amp).

The Company was having 58 numbers of 132 KV feeders in Garhwal and Kumoan Zones up to March 2012. Audit scrutiny of the line loadings revealed (August 2012) that, ten<sup>25</sup> out of 26 feeders test checked in Kashipur, Haridwar, Pantnagar and Roorkee Divisions were loaded in the range of 380 to 480 amps which were above prescribed norms of 366 amps. Loading of the lines beyond capacity resulted in voltage fluctuations, higher transmission losses and frequent interruptions/breakdowns.

The Management accepted the audit observation and stated (December 2012) that the diversion from prescribed limit happens only in contingent conditions and efforts are being made to maintain the norms.

##### **4.2.12.2 Bus Bar Protection Panel**

Bus bar is used as an application for inter-connection of the incoming and outgoing transmission lines and transformers at an electrical Sub-station. Bus Bar Protection Panel (BBPP) limits the impacts of the bus bar faults on the entire power networks which prevents unnecessary tripping and ensures selective tripping in only those breakers necessary to clear the bus bar fault. As per Grid norms and Best Practices in Transmission System, BBPP is to be kept in service

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<sup>25</sup> 132 KV Kashipur-1, 132 KV Jaspur, 132 KV Bazpur, 132 KV Kotdwar, 132 KV Jawalapur, 132 KV Rudrapur-Pantnagar, 132 KV Kichha-Rudrapur, 132 KV Kichha-Sitarganj, 132 KV Manglour-Roorkee and 132 KV Roorkee-Bhagwanpur.



for all 220 KV Sub-stations to maintain system stability during Grid disturbances and to provide faster clearance of faults on 220 KV buses.

Audit observed (August 2012) that the Company had seven 220 KV Sub-stations, where BBPP is required to be installed. Though the Company provided the panel at all seven Sub-stations, only five panels were in service and remaining two were not in working condition.

The Management accepted the audit observation and stated (December 2012) that the all BBPP had been installed in September 2012 after being pointed out by audit.

Audit further observed that the Company purchased two bus coupler bays for installation at 132 KV Sub-station at Kashipur and Ramnagar during 2010-11 for ₹ 0.73 crore. Above bus couplers were installed in June/July 2011 at Ramnagar and Kashipur Sub-stations respectively. Even after passage of one year from the installation, above bus couplers could not be utilized as they were not connected to the panel and the purpose of purchasing the bus couplers stands defeated.



*Un-connected Panel of the bus coupler at 132KV SS, Kashipur*

The Management accepted the audit observation and stated (December 2012) that the above bus couplers had been commissioned in September 2012 after being pointed out by audit.

#### **4.2.13 Maintenance**

##### **4.2.13.1 Performance of Current Transformers**

Current transformer (CT) is one of the most important and cost-intensive component of electrical energy supply network, as it is of special interest to prolong their life duration while reducing their maintenance expenditure. In order to gather detailed information about the operational conditions of CTs, oil analysis like the standard

oil Dissolved Gas Analysis (DGA) test is generally conducted. For CT insulation, a combination of an insulating liquid and a solid insulation impregnated therewith are used. For an evaluation of the actual condition of this insulating system, usually a DGA is used, as failures inside the CT lead to degradation of the liquid insulation in such a way that the compound of gases enables an identification of the causes of failure. The incidence of failure of transformers during the years 2007-08 to 2011-12 is indicated in **Table 4.2.3** below:

**Table 4.2.3**

Year	No. of transformers at the beginning of the year	No. of transformers failed	No. of transformers failed within guarantee period	No. of transformers failed within normal working life <sup>26</sup>	Expenditure on repair and maintenance (₹ In crore)
2007-08	1645	02	Nil	02	0.16
2008-09	1648	09	NIL	09	0.99
2009-10	1648	13	NIL	13	0.41
2010-11	1679	14	Nil	14	0.17
2011-12	1690	30	Nil	30	0.17

*(Source: Information compiled from the data available with the Company)*

From the above table, it could be observed that the Company added 45 CTs in its network during the review period. The number of failed CTs also increased from two in 2007-08 to 30 in 2011-12. The main reason for damage to CTs was overloading of SSs.

The Management accepted the audit observation and stated (December 2012) that the Company had been successful in curtailing the expenditure on repair and maintenance of CTs.

#### **4.2.13.2 Working of hot lines division**

The regular and periodic maintenance of transmission system is of utmost importance for its un-interrupted operation. The Report of the Committee for updating the Best Practices of Transmission in the country, apart from scheduled patrolling of lines, has prescribed various techniques for maintenance of lines which include hot line maintenance, hot line washing, hot line puncture detection of insulators, preventive

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<sup>26</sup> Normal life of transformer is 25 year.

maintenance by using portable earthing hot line tools, vibration measurement of the line, thermo-scanning, and pollution measurement of the equipment.

The hot line technique (HLT) envisages attending to maintenance works like hot spots, tightening of nuts and bolts, checking damages to the conductors, replacement of insulators etc., of Sub-stations and lines without switching off. This includes thermo scanning of all the lines and Sub-stations towards preventive maintenance. HLT was introduced in India in 1958. As of April 2007, the Company did not have any hotline division/ sub division and the position continued to be the same till December 2012.

Audit observed (April 2012) that in the absence of Hotline division and Thermo vision cameras, the Company was not in a position to scan the towers situated at top of hills, downstream and in dense forests. It was further observed that no written manual/ guidelines relating to the above were prepared. In the absence of hotline divisions, the Company did not have any mechanism for preventive maintenance and identifying the risky areas in advance.

The Management accepted the audit observation and stated (December 2012) that the creation and maintenance of hotline divisions is very expensive, the Company will consider about the same in the near future.

#### **4.2.13.3 Transmission losses**

While energy is carried from the generating station to the consumers through the Transmission and 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 to distribution companies. As per Uttarakhand Electricity Regulatory Commission (UERC) and Central Electricity Authority (CEA), the permissible transmission loss limit was two and five *per cent* respectively.

Audit noticed that the transmission losses remained under check during the review period and were ranging around 1.35 *per cent* to 1.88 *per cent* (**Appendix 4.9**) and remained within the permissible limit of two and five *per cent* fixed by the CEA and UERC.

During last five years the transmission losses of the Company remained within the norms fixed by CEA and UERC which was appreciable.

#### **4.2.14 Grid Management**

##### **4.2.14.1 Maintenance of Grid and performance of State Load Dispatch Centre**

Transmission and Grid management are essential functions for smooth evacuation of power from generating stations to the distribution companies/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 Central Electricity Authority (CEA). National Grid consists of five regions viz., Northern, Eastern, Western, North Eastern and Southern Grids, each of these having a Regional Load Dispatch Centre (RLDC), an apex body to ensure integrated operation of the power system in the concerned region. The Uttarakhand State Load Dispatch Centre (SLDC), a constituent of Northern Regional Load Dispatch Centre (RLDC), New Delhi ensures integrated operation of power system in the State. The SLDC is assisted by two Area Load Dispatch Centers (ALDCs) for data acquisition and transfer to SLDC and supervisory control of 132 KV and 33 KV equipments. The SLDC levies and collects such fees and charges from the generating companies and licensees engaged in intra-state transmission of electricity as specified by the Uttarakhand Electricity Regulatory Commission (UERC).

Audit noticed that the SLDC of the State was not operating independently, but was a constituent of the transmission utility. Despite UERC directions, the Company had not separated the work of SLDC and the segregation of accounts of SLDC had also not yet been done.

The Management accepted the audit observation and stated (December 2012) that the segregation of accounts of SLDC was prerogative of the Government. As per the ongoing practice, the accounts of SLDC were being initially prepared separately, but thereafter merged with that of the Company. However, the fact remained that as per UERC directions the accounts of SLDC should have been prepared separately but the same had not yet been followed (December 2012).

##### **4.2.14.2 Infrastructure for load monitoring**

Remote Terminal Units/Sub-station Management Systems (RTUs/SMSs) are essential for monitoring the efficiency of the transmission system and loads during emergency, in load dispatch centers, as per the Grid norms for all Sub-stations.

Audit noticed (April 2012) that there were a total of seven 220 KV Sub-stations and 26 Sub-stations of 132 KV and 13 generators, out of which, seven

(53.85 per cent) generators<sup>27</sup> and three (9.09 per cent) Sub-stations<sup>28</sup> were provided with RTUs for recording real time data for efficient Energy Management System. Further, the State Load Dispatch Centre (SLDC) was not integrated with the above system and the SLDC did not have data storing or back up facilities, thus reducing itself to an observation centre rather than monitoring centre for efficiency of the transmission as per Grid norms.

The Management accepted the audit observation and stated (December 2012) that the Sub-stations (approximately 80 per cent) had now been installed with RTUs after being pointed out by audit and the rest would be installed in the near future.

#### 4.2.14.3 Grid discipline by frequency management

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 were expected to maintain a system frequency between 49 and 50.5 Hertz (Hz) during April, 2006 to March, 2009, 49.2 and 50.3 Hz during April, 2009 to April, 2010 and 49.5 and 50.2 Hz with effect from May, 2010 for various reasons such as shortages in generating capacities, high demand, Grid indiscipline in maintaining load generation balance, inadequate load monitoring and management and Grid frequency going below or above the permitted frequency levels. To enforce the Grid discipline, the State Load Dispatch Centre (SLDC) issues three types of violation messages (A, B, C). Message A is issued when the frequency is less than 49.2 Hz and over-drawal is more than 50 Mega Watt (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 more than 200 MW for more than five minutes. Message C (serious nature) is issued 15 minutes after 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.

It was observed (April 2012) in audit that the office of Superintendent Engineer, SLDC, Rishikesh did not maintain records for issuing of messages. In this regard, it was stated (May 2012) by SLDC that there was only one transmission utility and one distribution company functioning in Uttarakhand, therefore, for maintaining Grid discipline, SLDC issues instruction to Primary Grid Sub-stations (Company's representative) and the Company's representative forwards the instructions to Secondary SSs (Distribution's representative) for load shedding.

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<sup>27</sup> Chibro, Khodri, Chilla & MB-I are connected with 220 Kv SSs and Dhalipur, Dhakrani & Kulhal are connected with 132 Kv SSs.

<sup>28</sup> 220 Kv SSs: Rishikesh & Chamba and 132 Kv SSs: Majra, Dehradun.

Due to non-recording of A, B and C message system, the urgency of message could not be effectively relayed, causing a threat to the stability of grid and also violating the prescribed Grid Code.

The Management accepted the audit observation and stated (December 2012) that the significant efforts were started in respect of recording of A, B and C messages, after being pointed out by audit.

#### **4.2.14.4 Grid discipline**

For maintenance of Grid discipline, the Central Electricity Regulatory Commission (CERC) takes up suo-motu petition on over drawl of power from the Grid at a lower frequency thus putting the Grid to risk. Audit noticed (April 2012) that the Company violated (April 2010) the grid discipline on nine occasions, resulting in the Company paying penalty of ₹ nine lakh to CERC.

The Management stated (December 2012) that the violation of grid disciplines was mainly due to gap between the schedule and demand being managed by distribution company (UPCL). No penalty had been imposed on the Company after April 2010 and the maintenance of grid frequency was being done as per norms. However, the fact remained that it was the responsibility of the Company to maintain the Grid discipline.

#### **4.2.14.5 Backing Down Instructions (BDI)**

When the frequency exceeds the ideal limits, i.e., a situation where generation is more and drawl is less (at a frequency above 50 Hz), State Load Dispatch Centre (SLDC) takes action by issuing Backing Down Instructions (BDI) to the Generators to reduce the generation for ensuring safe integrated Grid operations and for achieving maximum economy and efficiency in the operation of power system in the State. Failure of the generators to follow the SLDC instructions would constitute violation of the Grid code and would invite penalties. Audit noticed that the Company issued BDI for 8.78 MUs for compliance on 23 occasions against which generators complied in full during the period from 2007-08 to 2011-12. It was appreciable that the BDI instructions were 100 *per cent* complied by the generators.

#### **4.2.14.6 Planning for power procurement**

The Company draws long term supply plan taking into account the contracted generation capacity, allocation from central sector and future committed projects and evaluates net additional requirement of power in consultation with the distribution Company (UPCL) of the State. It also draws a plan a day prior for assessing its day to day power requirement. The details of total requirement of the State, total power

supplied and shortage of power for the five years 2007-08 to 2011-12 are given in **Table 4.2.4** below:

**Table 4.2.4**

*(Figures in MUs)*

S. No	Details	2007-08	2008-09	2009-10	2010-11	2011-12
1	Total power requirement	7,052.18	7,848.19	8,936.15	9,853.88	10,577.93
2	Total power supplied <sup>29</sup>	6,847.61	7,769.73	8,355.74	9,293.81	10,277.98
3	Power short supplied	204.57	78.46	580.41	560.07	299.95
4	Percentage of shortage	2.90	0.99	6.50	5.68	2.83

*(Source: Information compiled from the data available with the Company)*

It could be seen from the above that the percentage of shortage of power is on the declining trend, i.e., from 6.50 in 2009-10 to 2.83 per cent by 2011-12.

The gap in demand-supply position also leads to variation between actual generation or actual drawl and scheduled generation or scheduled drawl which is accounted through Unscheduled Interchange (UI) charges, worked out by SLDC for each 15 minutes time block. UI charges are levied for the supply and consumption of energy in variation from the pre-committed daily schedule. This charge varies inversely with the system frequency prevailing at the time of supply/consumption. Hence, it reflects the marginal value of energy at the time of supply. The levying of UI charges acts as a commercial deterrent to curb over-drawals from Central Generating Stations (CGS) during low frequency conditions.

Audit noticed (April 2012) that the distribution Company of the State did UI over-drawl of 2,502.15 Million Units (MUs) during 2007-08 to 2011-12 costing ₹ 1,126.27 crore at a rate in the range of ₹ 3.72 to ₹ 5.66 per unit. The percentage of shortage of power was on a declining trend as the distribution company (UPCL) did over-drawl of power to meet the demand but resultantly, the burden of expensive power was borne by the consumer.

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<sup>29</sup> Including generation, short and long term purchases and drawl from Central Generating Stations.

#### **4.2.15 Disaster Management**

**4.2.15.1** 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, Diesel Generator 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 a disaster. As a part of DM programme, mock drill for starting up generating stations during black start<sup>30</sup> operations should have been carried out by the Company once in a year. However, no mock drill operation was carried out by the Company in any of the Sub-stations during 2007-08 to 2011-12.

#### **4.2.15.2 Inadequate facilities for Disaster management**

Availability of Diesel generating (DG) sets and synchrosopes<sup>31</sup> which form part of DM facilities at Extra High Tension (EHT) Sub-stations, connecting major generating stations, should be ensured.

Audit noticed (August 2012) that at total number of 35 Sub-stations of 400 KV, 220 KV and 132 KV, DG sets and synchrosopes were not available. In addition, pump sets are also required to evacuate the accumulated rain water or flood water. In the absence of DG sets and pump sets, following instances were noticed in audit:

- The area covered by 132 KV Sub-station at Bhopatwala, Haridwar was in the state of complete black out as all the panels were badly affected from 19 September 2010 to 22 September 2010 due to accumulation of flood water resulting from heavy rains, as evident from the photographs shown below:

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<sup>30</sup> The procedure necessary to recover from partial or total black out.

<sup>31</sup> In an AC electrical power system, it is a device that indicates the degree to which two systems generators or power networks are synchronised with each other.





*File photo of Switch yard of 132KV SS Bhopatwala Haridwar during flood*



*File photo of 132KV SS Bhopatwala Haridwar during flood*

- Similarly, 132 KV Sub-stations at Kashipur was flooded on 17 August 2011 due to heavy rains and complete system was forced to be shut down and could be recouped only after 24 to 36 hours, as all the panels were badly affected by flood water. Power supply of the entire city was badly affected during this period.



*File photo of Feeder of 132 KV SS at Kashipur during flood*



*File photo of 132 KV SS building at Kashipur during flood*

Management accepted the audit observation and stated (June 2012) that there was a need of DG set at Sub-stations as there was no alternative source of power in case of breakdown, natural calamity and blackout etc.

Audit further noticed that the 132 KV Sub-station, Laksar was also afflicted by flood on 16.08.2011 due to heavy rains and complete system was forced to be shut down and could be recouped only after 12 hours, as more than three feet water at Sub-station and more than one foot at control room had accumulated and all the panels were affected. Power supply to the entire city was also affected during this period, as evident from the photographs shown below:



*File photo of Switch yard of 132 KV SS at Laksar during flood*



*File photo of Control Room of 132 KV SS Laksar during flood*

Had the Company installed DG sets/pump sets in advance to deal with the above situation, the prolonged interruption of power supply could have been avoided. In spite of above incidents, the Company did not procure and install the DG sets/pump sets at the Sub Stations so far.

Further, the Company did not identify vulnerable Sub Stations for installation/provision of metal detectors and handing over the security of the sites to the security forces to deal with the crisis arising in case of terrorist attacks, sabotage or bomb threat.

Audit further observed that the Company was not fully prepared for facing any disaster. The Company had no documented disaster recovery plan or business continuity plan which could be followed during emergencies.

The Management accepted the audit observation and stated (December 2012) that the DG sets had been installed at new Sub Stations and planned to install at the important Sub Stations in the next financial year. The Company was, however, silent on the issues of absence of documented disaster recovery plan or business continuity plan.

#### **4.2.16 Energy Accounting and Audit**

Energy accounting and audit is necessary to assess and reduce transmission losses. Transmission losses are calculated from the Meter Reading Instrument (MRI), readings obtained from Generation to Transmission (GT) and Transmission to Distribution (TD) Boundary metering points. There were 85 interface Boundary metering points between TD (68) and GT (17) as of 31 March 2012. All the GT & TD points were provided with Electronic 0.5 Accuracy class meters.

An analysis of data during test audit of five divisions<sup>32</sup> with 21 feeders, for three months period from March to May of each year (2007-08 to 2011-12) indicated that the transmission losses of the feeders were within the norms fixed by the Uttarakhand Electricity Regulatory Commission (UERC) and Central Electricity Authority (CEA).

#### 4.2.17 Financial Management

**4.2.17.1** One of the major objectives of the National Electricity Policy, 2005 was ensuring the financial turnaround and commercial viability of Power Sector. The financial position of the Company for the five years ending 2011-12 is given in **Table 4.2.5** below:

**Table 4.2.5** (₹ in crore)

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12 <sup>33</sup>
<b>A. Liabilities</b>					
Paid up Capital	102.58	122.28	172.09	187.09	227.41
Reserves & Surplus(including Capital Grants)	(-) 0.65	(-) 21.02	(-) 48.03	(-) 57.58	(-) 37.36
Borrowings (Loan Funds)	617.37	607.68	644.48	692.00	710.19
Current Liabilities & Provisions (CL)	139.16	168.27	164.91	203.04	186.28
<b>Total</b>	<b>858.46</b>	<b>877.21</b>	<b>933.45</b>	<b>1024.68</b>	<b>1086.52</b>
<b>B. Assets</b>					
Gross Block	524.78	557.76	612.81	690.94	793.74
Less: Depreciation	197.46	231.73	254.09	273.66	295.48
Capital Works-in-Progress (CWIP)	321.56	373.97	263.17	299.83	267.01
Current Assets, Loans and Advances (CA)	209.58	177.22	311.55	307.56	321.25
<b>Total</b>	<b>858.46</b>	<b>877.21</b>	<b>933.45</b>	<b>1024.68</b>	<b>1086.52</b>
Profit/loss after tax as per Profit & Loss Account	(-) 13.98	(-) 19.05	(-) 26.97	(-) 9.50	(-) 2.07
Debt equity ratio	6.02:1	4.97:1	3.74:1	3.70:1	3.12:1
Interest (net of IDC <sup>34</sup> capitalised)	16.08	22.25	27.83	30.57	36.87
Total return	80.72	87.22	78.68	102.83	135.25
Capital Employed <sup>35</sup>	651.96	637.47	578.62	599.59	643.51
% Return on Capital Employed	12.38	13.68	13.59	17.15	21.02

<sup>32</sup> 400 KV O&M Kashipur, 132 KV O&M Kashipur, 220 KV O&M Pantnagar, 220 KV O & M Dehradun and 220 KV O&M Roorkee.

<sup>33</sup> The details in respect of 2011-12 are provisional.

<sup>34</sup> Interest during construction.

<sup>35</sup> Capital employed = Net fixed assets (including WIP) + Working capital excluding loans and advances.

It may be seen from the above that the loss of the Company had decreased substantially by 85.19 *per cent* from ₹ 13.98 crore in 2007-08 to ₹ 2.07 crore in 2011-12. Further, the debt-equity ratio of the Company had decreased from 6.02:1 to 3.12:1 during the 2007-08 to 2011-12. The main reason for decrease in debt-equity ratio is conversion of Government loan into equity from 2009-10 onwards.

The percentage of Return on capital increased from 12.38 *per cent* in 2007-08 to 21.02 *per cent* in 2011-12 due to decrease in Capital Work-in-Progress from ₹ 321.56 crore in 2007-08 to ₹ 267.01 crore in 2011-12 and decrease in working capital from net current assets of ₹ 3.08 crore in 2007-08 to net current liability of ₹ 121.82 crore in 2011-12.

It was also observed that the Company's borrowings had increased from ₹ 617.37 crore in 2007-08 to ₹ 710.19 crore in 2011-12.

**4.2.17.2** The details of working results i.e., revenue realisation, net surplus/loss and earnings and cost *per* unit of transmission during the period 2007-08 to 2011-12 are given in **Table 4.2.6** below:

**Table 4.2.6** (₹ in crore)

Sl. No	Description	2007-08	2008-09	2009-10	2010-11	2011-12 <sup>36</sup>
<b>1</b>	<b>Income</b>					
	Revenue	78.02	86.71	75.81	101.74	132.93
	Other income including interest/subsidy	2.70	0.51	2.87	1.09	2.32
	<b>Total Income</b>	<b>80.72</b>	<b>87.22</b>	<b>78.68</b>	<b>102.83</b>	<b>135.25</b>
<b>2</b>	<b>Transmission</b>					
(a)	Installed capacity (Mva)	4550.50	4550.50	4590.50	4630.50	4990.50
(b)	Power received from generation units (MUs) <sup>37</sup>	7400.60	10033.37	11449.90	11449.90	12298.99
	<b>Total</b>	<b>7400.60</b>	<b>10033.37</b>	<b>11449.90</b>	<b>11449.90</b>	<b>12298.99</b>
(c)	Loss in transmission (MUs)	100.23	186.84	194.78	214.75	229.15
	<b>Net power transmitted (b)+(c)-(d) in MUs</b>	<b>7300.37</b>	<b>9846.53</b>	<b>11255.12</b>	<b>11235.15</b>	<b>12069.84</b>

<sup>36</sup> The details in respect of 2011-12 are provisional.

<sup>37</sup> Including private generation

Sl. No	Description	2007-08	2008-09	2009-10	2010-11	2011-12 <sup>36</sup>
<b>3</b>	<b>Expenditure</b>					
(a)	Fixed cost					
(i)	Employees cost	30.12	31.09	33.97	37.69	45.94
(ii)	Administrative and General Expenses	10.07	8.76	9.24	12.76	14.66
(iii)	Depreciation	30.62	34.27	22.36	19.57	21.82
(iv)	Interest and Finance charges (net after capitalisation)	16.08	22.25	27.83	30.57	36.87
	<b>Total fixed cost</b>	<b>86.89</b>	<b>96.37</b>	<b>93.40</b>	<b>100.59</b>	<b>119.29</b>
(b)	<b>Variable cost - Repairs &amp; Maintenance</b>	7.81	9.91	12.25	11.75	18.03
(c)	Total cost 3 (a) + (b)	94.70	106.28	105.65	112.34	137.32
<b>4</b>	Realisation (₹ per unit)	0.11	0.09	0.07	0.09	0.11
<b>5</b>	Fixed cost (₹ per unit)	0.12	0.10	0.08	0.09	0.10
<b>6</b>	Variable cost (₹ per unit)	0.01	0.01	0.01	0.01	0.01
<b>7</b>	Total cost (₹ per unit) (5+6)	0.13	0.11	0.09	0.10	0.11
<b>8</b>	Contribution (₹ per unit) (4-6)	0.10	0.08	0.06	0.08	0.10
<b>9</b>	<b>Profit (+)/Loss(-) (4-7) (₹ per unit)</b>	<b>-0.02</b>	<b>-0.02</b>	<b>-0.02</b>	<b>-0.01</b>	<b>-</b>

(Source: Information compiled from the data available with the Company)

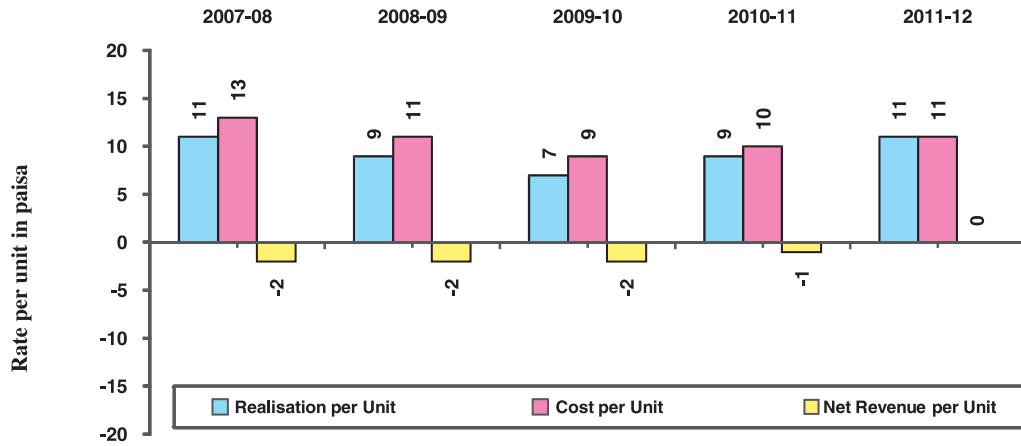
It may be seen from the above that the realization per unit had fluctuating trends and the cost per unit decreased from ₹ 0.13 to ₹ 0.11 (15.38 per cent) during 2007-08 to 2011-12. Further, the total realization of the Company increased by ₹ 54.53 crore during the period from 2007-08 to 2011-12, and contribution per unit also fluctuated ranging between ₹ 0.06 to ₹ 0.10 per unit during the period 2007-12.

It is also evident from the above table that Employees cost, Interest & Finance charges and Depreciation constituted the major elements of cost in 2011-12 which represented 33.45, 26.85 and 15.89 per cent respectively of the total cost in that year.

#### 4.2.17.3 Recovery of cost of operations

The Company had received tariff from distribution utility (UPCL) of the State on fixed basis from 2007-08 to 2011-12 as allowed by the Uttarakhand Electricity Regulatory Commission (UERC). However, during the last five years ending 2011-12, the

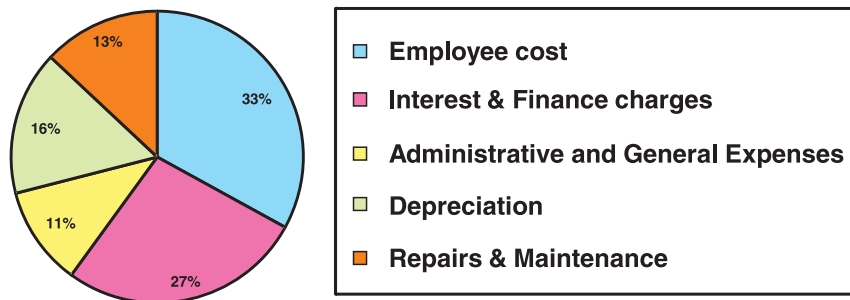
realization, cost and net revenue per unit may be indicated as per graph given below:



From the above, it is seen that the total revenue earned by the Company was insufficient to cover the total cost. The Company was fully dependent on borrowed funds for augmentation of its transmission capacity, construction of new Sub-stations and transmission lines. The main reasons of losses are soaring employee cost, interest and financial charges, which were borne by the Company during 2007-12.

**4.2.17.4 Elements of Cost**

The percentage break-up of major elements of costs for 2011-12 is given below in the pie chart:

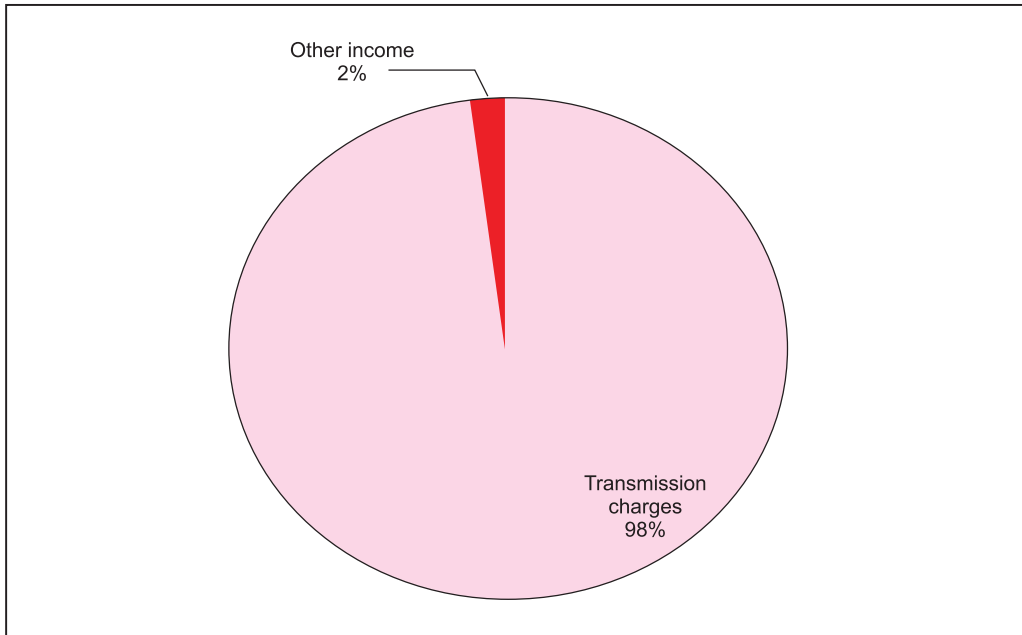


During 2011-12, employee cost (33 per cent), interest and finance charges (27 per cent) and depreciation (16 per cent) constituted the major elements of the cost and total expenditure of the Company. Considering that the above three

(76 per cent) are part of the fixed cost, it may be difficult for the Company to reduce the expenditure on the above elements in the near future.

#### 4.2.17.5 Elements of revenue

Transmission charges constitute the major element of revenue. The percentage break-up of revenue for 2011-12 is given below in the pie chart.



It is evident from the above that the transmission charges of the Company constituted 98 per cent of the total element of revenue.

#### 4.2.17.6 Collection of State Load Dispatch Centre (SLDC) charges

The State Load Dispatch Centre (SLDC) charges were introduced from 2010-11 onwards and the Company levied these charges amounting to ₹ 0.03 crore on one private generator<sup>38</sup>/Open Access (OA) user upto March 2012.

Audit noticed (May 2012) that the SLDC of the State was not maintaining its account separately and working as a part of the Company. Consequently, SLDC did not file its Annual Revenue Requirement (ARR) separately before Uttarakhand Electricity Regulatory Commission (UERC) and hence, it did not recover any charges from the distribution company (UPCL) of the State in the shape of SLDC charges upto March 2012.

<sup>38</sup> M/s BHPL.

The Management accepted the audit observation and stated (December 2012) that the action will be taken very soon after obtaining the approval of the State Government.

#### **4.2.17.7 Collection of surcharge from Distribution Company (Uttarakhand Power Corporation Limited)**

The Company raises monthly transmission bills against Uttarakhand Power Corporation Limited (UPCL) on the allocated capacity at the rates specified in the Tariff Orders. The bills are to be paid within a week from the date of issue of bill.

It was observed in audit (May 2012) that neither any letter of credit (LC) was opened by UPCL till date nor the provision for levy of penalty was included in the agreement. In the absence of LC, the remittances from UPCL were delayed in the range of 15 to 45 days, resulting in loss of interest on transmission bills. No penalty could be charged by the Company, as there is no such clause in the agreement with UPCL.

The Management accepted the audit observation and stated (December 2012) that the LC with distribution company (UPCL) will be opened in due course.

#### **4.2.18 Tariff Fixation**

The financial viability of a Company depends upon generation of surplus (including fair returns) from operations to finance their operating needs and future capital expansion programmes by adopting prudent financial practices. Revenue collection is the main source of generation of funds for the Company. Issues relating to tariff are discussed here under:

The tariff structure of the Company was subject to approval by the Uttarakhand Electricity Regulatory Commission (UERC). It was further subject to objections, if any, raised against Annual Revenue Requirement (ARR) petition filed by the Company within the stipulated date. The Company was required to file the ARR for each year by 30 November of the previous year. The UERC accepts the application filed by the Company with such modifications/conditions, as may be deemed appropriate and after considering all suggestions and objections from public and other stakeholders. The details of due date of filing ARR, actual date of filing, date of approval of tariff petition and the effective date of the revised tariff, are given in **Table 4.2.7** below:



Table 4.2.7

Year	Due date of filing	Actual date of filing	Delay in days	Date of approval	Effective date
2007-08	30-11-2006	02-03-2007	89	18-03-2008	01-04-2007
2008-09	30-11-2007	Suo motu proceeding	-	18-03-2008	01-04-2008
2009-10	30-11-2008	31-12-2008	31	21-10-2009	01-04-2009
2010-11	30-11-2009	30-11-2009	-	06-04-2010	01-04-2010
2011-12	30-11-2010	29-11-2010	-	10-05-2011	01-04-2011

(Source: Information compiled from the data available with the Company)

From the above, it may be seen that the Company could not file ARR petition for the year 2008-09 and petitions for the year 2007-08 and 2009-10 were filed belatedly. Because of non-filing of the ARR petition for 2008-09 by the Company in time, the tariff was revised *suo-motu* by the UERC. In accordance with the Regulation 56(4) of 2004 and the terms and conditions for determination of tariff for transmission activity, the Company files an ARR with the UERC, for the revenue required to meet the cost pertaining to the transmission business for each financial year, which is permitted to be recovered by the UERC, through tariffs and charges, which is the main source of revenue of the Company.

The ARR proposals, as submitted by the Company and approved by the Commission are given in **Table 4.2.8** below:

Table 4.2.8

Transmission Tariff						
Year	COMPANY			UERC		
	Total capacity for transmission (MW)	Revenue Requirement (₹ in crore)	Tariff, ₹/KW/ Month	Total capacity for transmission (MW)	Revenue Requirement (₹ in crore)	Tariff, ₹/KW/ Month
2007-08	1792.00	155.93	72.51	1792.00	91.19	42.40
2008-09	UERC Suo-moto approved the ARR of the Company, as the Company failed to submit the ARR.				86.71	-
2009-10	1809.27	144.84	92.22	1809.27	102.53	65.28
2010-11	1891.59	172.68	91.29	1891.59	101.74	53.79
2011-12	1989.68	247.10	103.51	1989.68	131.82	55.22

(Source: Information compiled from the data available with the Company)

As per the Regulation, the Company shall file the details of expenditure, in respect of the controllable items (Operation and maintenance, Return on capital employed, Depreciation and non-tariff income) before the UERC, which in turn would review and make appropriate adjustments wherever required.

Audit noticed (September 2012) that the Company proposed its revenue requirement of ₹ 720.55 crore during 2007-08 to 2011-12 except 2008-09 against which only ₹ 427.28 crore was allowed by UERC. The UERC *suo motu* allowed a tariff of ₹ 86.71 crore to the Company for the year 2008-09. It was further observed in audit that the Company's final truing up for the period from 2004-05 to 2010-11 was still pending for want of audited accounts and reconciliation of assets capitalization. Due to this, the Company had to bear the disallowed expenditure/cost from its own resources.

The Company had been incurring loss during the period 2007-08 to 2011-12 and the accumulated loss of the Company stood at ₹ 103.87 crore as on March 2012. The accumulated loss of the Company could have been minimised if the Company had submitted its truing up of ARR with UERC.

The Management accepted the audit observation and stated (December 2012) that the multi-year tariff petition will be filed before UERC within a month.

#### **4.2.19 System Availability**

As per Uttarakhand Electricity Regulatory Commission (UERC) Regulation 2004, the Company is entitled for full recovery of annual transmission charges only if it achieves target availability of 98 *per cent* for its alternating current system and in case of availability of less than 98 *per cent*, the recovery of Annual Transmission Charges (ATC) is reduced to that extent on pro-rata basis. The system availability of the Company was 99.24, 99.14 and 99.50 *per cent* during 2009-10, 2010-11 and 2011-12 respectively.

For this meritorious performance, the Company was awarded (March 2012) Gold Shield for system availability by the Ministry of Power, Government of India, which was commendable.

#### **4.2.20 Material Management**

**4.2.20.1** The key functions of material management have been prescribed in the inventory control policy, describing the system of procurement of materials and disposal of obsolete inventory. Although the Company had a documented procurement and contract manual, yet in the absence of proper working by the central store, the instructions were not being followed and there was a lack of inventory control mechanism for economical procurement and efficient control over inventory. Further scrutiny of records of the Company revealed the following:

#### 4.2.20.2 Non-fixation of norms for inventory

The details of opening stock, purchases, issues and closing stocks for the period from 2007-08 to 2011-12 are given in **Table 4.2.9** below:

**Table 4.2.9** (₹ in crore)

Year	Consumption (per annum)	Consumption (per month)	Net Closing stock (as per Balance Sheet)	Closing stock in terms of months of consumption
2007-08	15.52	1.29	28.26	21.91
2008-09	18.12	1.51	23.43	15.52
2009-10	13.48	1.12	22.03	19.67
2010-11	19.02	1.58	26.61	16.84
2011-12	12.48	1.04	30.39	29.22

(Source: Information compiled from the data available with the Company)

Though the Company's closing stock was equal to 21.90 month in 2007-08 which had increased to 29.22 months consumption in 2011-12, yet the Company had neither fixed any minimum/ maximum level for inventory holding nor done any ABC analysis, or fixed any reorder level for the requirement of material.

The Management stated (December, 2012) that at the time of formation of the Company, stock amounting to ₹ 21.53 crore was transferred from distribution company (UPCL) and it still stands in Company's stock. After deducting the same from total stock, the closing stock in terms of consumption remains only for 5.21 months, which is necessary for business. The reply of the management was not convincing as the Company was silent on the maximum and minimum limit of inventory, ABC analysis and economic order quantity for procurement of inventory was not adopted. Moreover, the stock (₹ 21.53 crore) transferred by distribution company (UPCL) is also a part of Company's stock.

#### 4.2.20.3 Non-conducting of physical verification of stock

As per General Financial Rules 116(1), annual physical verification of store is to be made at least once every year. The Company is having two central stores at Rishikesh in Garhwal Zone and Haldwani in Kumoan Zone. These stores were established in 2009-10. However, they were not functioning properly as these stores did not maintain their store accounts and ledger. Physical verification of the stores was not being conducted since inception. Resultantly, the Company did not have any mechanism to control the inventory.

The value of obsolete and scrap material, as compiled by the Company, based on information furnished by the field units, during last five years is given in **Table 4.2.10** below:

**Table 4.2.10**

*(₹ in crore)*

Particulars	2007-08	2008-09	2009-10	2010-11	2011-12
Surplus/obsolete/ unserviceable/ scrap	21.54	21.54	21.55	23.89	23.89

*(Source: Information compiled from the data available with the Company)*

From the above, it could be seen that the value of scrap and obsolete material had marginally increased during the review period. The reconciliation of the above stock had not been done. The Company had not taken any action for disposal of the scrap/obsolete material. Store items lying idle were also not transferred to other units for consumption.

The Management stated (December, 2012) that steps were being taken to auction scrap/surplus/unserviceable/non-moving inventory.

#### **4.2.20.4 Idle lying of conductor (amounting to ₹ 83.00 lakh)**

Audit noticed (June 2012) that during the construction of 400 KV line at Kashipur, the division (400 KV Operation and Maintenance, Kashipur) procured Aluminium Conductors Steel Reinforced (ACSR) Moose conductor valuing ₹ 83.00 lakh during 2005-06 in excess of the requirement and it was lying un-utilised in open space of the division since September 2006.



*ACSR conductor lying in open place at 400 KV SS, Kashipur*



*ACSR conductor lying in open place at 400 KV SS, Kashipur*

The Management stated (December 2012) that the conductor lying with Kashipur division does not deteriorate due to storage in open place and the same will be

utilized very soon. However, the fact remained that the conductor could not be put to use even after a passage of six years and is lying in open space.

#### **4.2.21 Monitoring and control by top management**

**4.2.21.1** The Company plays an important role in the State economy. For such a giant organisation to succeed in operating economically, efficiently and effectively, there should be documented management systems of operations, service standards and targets. Further, there has to be a Management Information System (MIS) to report on the achievement of targets and norms. The achievements need to be reviewed to address deficiencies and also to set targets for subsequent years. The targets should generally be such that the achievement of which would make an organisation self-reliant.

The performance of Sub-stations and lines of 400/220/132 KV on various parameters like maximum and minimum voltage levels, breakdowns, voltage profiles should be recorded /maintained as per the Grid Code standards.

Audit noticed (September 2012) 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 divisions compile the monthly MIS reports indicating the performance of the units as well as equipments installed. Though these booklets were being forwarded to the Corporate Office, but the same were not kept month-wise and year-wise for verification.

Further, verification of MIS reports revealed that details regarding programmed overhauling of equipments like Circuit Breakers (CBs), due dates of next oil change, On Load Tap Changer (OLTC) operations, dates of maintenance works, performance of Sub-station batteries, performance of relays, cause-wise analysis of feeder breakdowns, etc. were not being maintained. The Board of Directors (BOD) of the Company was not being apprised of the performance of lines and Sub-stations, and steps taken for further improvement of the system either annually/ quarterly/monthly, reflecting the minimal importance being given to the MIS reports.

In this regard, the following points may be considered for better MIS management:

- The Company should set the annual target on milestone basis for augmentation of transmission capacity, construction of new Sub-stations and transmission lines.

- The Company should devise a proper MIS to compile data in respect of overloading of Sub-stations, frequent voltage variation and load sharing of Sub-stations for effective management.
- The BOD should discuss the operational and financial performance of the Company as a whole.
- The Company should generate reports to identify the recurring maintenance problem in respect of SubStations, lines and equipments.
- The Company should develop a mechanism of information sharing in respect of better utilization of inventory.

#### **4.2.21.2 Review of the envisaged benefits of Transmission & Distribution schemes**

The Company executed and commissioned five Extra High Tension (EHT) Sub-stations and erected a total length of 425.20 Circuit Kilometer (Ckm) of EHT lines during the period under review. While approving the Transmission and Distribution (T&D) schemes, the Company envisaged benefits in terms of reduction in line losses, improvement in voltage levels and load growth to be achieved by the new schemes.

Audit observed that the Company did not evolve any mechanism/system to assess the benefits actually derived consequent upon implementation of the T&D schemes. Moreover, feedback from the concerned field offices was not received, though required, in respect of new projects after commissioning.

The Management stated (December, 2012) that with the construction of new Sub-stations and lines had benefited the system, as there was additional load flow in the system and availability of the system was more than 99.5 *per cent*. The reply of the management was not convincing as the Company could not quantify as to how the new Sub-stations had benefited the system. The Company had also not undertaken any study to quantify the benefits derived from new Sub-stations and lines.

#### **4.2.21.3 Internal Controls and Internal Audit**

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 which is designed to ensure proper functioning as well as effectiveness of the internal control system and detection of errors and frauds.

Audit noticed (August 2012) that before separation of the Company from the Distribution company (UPCL) it had a separate internal audit wing headed by

Deputy General Manager (Finance). After unbundling in June 2004, there was no such arrangement in the Company. However, the internal audit wing of UPCL continued the work of internal audit of the Company up to 2006-07. The Company decided to outsource the internal audit function in the 24th Board meeting of the Company held on 30 November 2009. The internal audit work of the Company was outsourced to a firm<sup>39</sup> for an amount of ₹ 6.50 lakh annually. However, it was observed that the standard of internal audit by the outsourced agency was not up to the mark as the firm neither reported on system deficiencies nor pointed out significant observations and restricted their report only to the extent of arithmetical accounting errors and overlooked the propriety side of expenditure.

The Company needs to develop its own internal audit wing.

The Management accepted the audit observation and stated (December 2012) that the proposal of establishment of internal audit wing was submitted to the Board of Directors and the same will be established very soon.

#### **4.2.21.4 Audit Committee**

As per provision of Section 292A of the Companies Act, 1956 each company should constitute an Audit Committee (AC) which shall discuss periodically with the auditors about internal control systems, the scope of audit including the observations of the auditors and review the half-yearly and annual financial statements before submission to the Board and also ensure compliance of internal control systems.

The Company had constituted an Audit Committee as required under Section 292A of the Companies Act, 1956. As per Companies Act, Audit Committee should review half yearly and annual financial statement which meant that at least two meetings of AC should be held in a year.

Audit noticed (August 2012) that in a span of five years, the Audit Committee met only on seven occasions instead of minimum of 10 times as per Companies Act. The Audit Committee met only on two occasions during 2007-08 to 2008-09. Further, as per Section 292A (5), the internal auditors should have also attended all the meetings, but the same was not complied with, in any of the meetings.

The Management accepted the audit observation and stated (September 2012) that the same had been noted for future.

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<sup>39</sup> M/s L.B. Jha & Company

## **4.2.22 Environment Management**

### **4.2.22.1 Improper disposal of hazardous waste**

The equipment namely, SF 6 CBs, which uses sulfur hexafluoride is used in transmission Sub-stations for switching purposes and protection of transformers and lines. During operation, SF 6 CBs produce white or off white solid ash by-products. Any contact to this produce may cause irritation or possible painful fluoride burn. Thus, the ash produced in the process is extremely harmful for human body as well as the environment.

During the process of maintenance/overhauling of SF 6 CBs, the items such as solid ash, disposable protective clothing, cleaning rags, filters from respirations, molecular sieve from breaker and gas car, and vacuum filter equipments, are needed to be disposed of in a proper manner.

All materials used in the cleanup operation/process of maintenance/overhauling of SF 6 CBs should be placed in a 55 gal drum and disposed of as hazardous waste.

During the course of audit, 110 SF 6 CBs installed in 20 Sub-stations of six Operation and Maintenance divisions<sup>40</sup>, were test checked. These SF 6 CBs were subject to maintenance /complete overhauling on 6 to 12 occasions during 2007-08 to 2011-12. However, it was noticed that the Company did not have a mechanism for effective disposal of the hazardous waste.

The Management accepted the audit observation and stated (December 2012) that the maintenance of SF 6 CBs was done without opening SF 6 gas chamber, however, as suggested by audit, the mechanism will be developed for disposal of hazardous waste at every Sub-station.

### **4.2.22.2 Non-adherence to safety measures**

The Right of Way (ROW) in which transmission lines are constructed in the forest area should range between the widths of 18 meters to 52 meters for 132 Kilo Volt (KV) to 400 KV lines. Under this ROW, the height of trees should not be more than four meters to avoid loss of forest through fire threats and transmission losses.

The Company has 2319.20 Circuit Kilometre (Ckm) lines, out of which 785.86 Ckm lines (about 33.87 *per cent*) fall under dense forest area and the maintenance

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<sup>40</sup> 400 Kv O&M Kashipur, 132 Kv O&M Kashipur, 220 Kv O&M Pantnagar, 220 Kv O&M Dehradun, 220 Kv O&M Roorkee and 220 Kv O&M, SIDCUL Haridwar.



of these lines was being carried out by seven Operation and Maintenance (O&M) divisions<sup>41</sup> of the Company.

Forest fire caused due to arcing between a high voltage wire and a tree branch are a frequent phenomenon.

Audit noticed (September 2012) that the O&M divisions of the Company carried out patrolling in an unscheduled manner. Moreover, it was also observed that the Company had no other mechanism except patrolling to ascertain the safety of lines/environment and to avoid loss of forest and flora and fauna due to fire. In the absence of regular patrolling, the growth of vegetations/trees, which falls under ROW could not be verified and due to lack of identification of length of trees and risky areas in time, the threat of forest fire and loss to environment cannot be ruled out.

Thus, the Company should have prepared a documented action plan for patrolling of lines in forest area in order to take preventive measures.

The Management stated (December 2012) that the patrolling of lines was being carried out as per its O&M manual. However, as suggested by audit, the Company assured to develop a documented action plan for patrolling of lines in forest area to take preventive measures.

#### **4.2.23 Conclusion**

The Company failed to implement the Uttarakhand Integrated Transmission Project scheme in an economical, efficient and effective manner. The revenue mechanism of the scheme was also still unresolved. The Company failed to complete the projects, as planned, during the five years period. There were abnormal delays in execution of major projects because of deficient planning and project management, with time overrun ranging between seven to forty months. Sub-stations were constructed without proper load flow studies which resulted in under-utilization of Sub-stations. There were cases of abnormal overloading of transformers and transmission lines than prescribed. Only seven out of 35 of 132 Kilo Volt (KV), 220KV and 400 KV Sub-stations of the Company were connected to State Load Dispatch Centre (SLDC) through Remote Terminal Unit (RTU), for safety and security of Grid. Safety measures and infrastructure for Disaster management were inadequate. There was delay in filing the true up tariff petition for the period from 2004-05 to 2010-11. The Company had neither laid down any norms for the management

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<sup>41</sup> 132 KV O&M Almora, 132 KV O&M Haldwani, 400 KV O&M Kashipur, 132 KVO&M Srinagar, 400 KV O&M Rishikesh, 220 KV O&M Dehradun and 220 KV O&M Rishikesh.

of inventory system nor fixed minimum/maximum level of stock. However, the Company was awarded Gold Shield for maintaining the system availability by the Ministry of Power, Government of India. All the Backing Down Instructions (BDI) issued by the Company were also complied in full. The transmission losses of the Company remained within the norms during the review period.

#### **4.2.24 Recommendations**

The Government/Company may consider to:

- introduce an effective monitoring system to ensure that there are no delays in completion of projects by ensuring that all the required approvals/statutory clearances are obtained before awarding any contract;
- review physical and financial progress of incomplete schemes periodically before taking up the new schemes, to avoid time and cost overrun;
- ensure that Sub-stations are constructed only after proper load analysis;
- maintain State Load Dispatch Centre (SLDC) as per Grid Code and ensure that all generators and Sub-stations are connected to SLDC through Remote Terminal Units (RTUs) on real time basis, for safety and security of Grid;
- lay down norms for the management of inventory system indicating minimum, maximum and re-ordering level of various inventories;
- develop a disaster management system for quick restoration of its network in case of emergency;
- establish hotlines/divisions for preventive maintenance and for identifying the risky areas in advance; and
- develop a documented action plan for patrolling of lines in forest area to take preventive measures.

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## AUDIT OF TRANSACTIONS

### Uttarakhand Power Corporation Limited

#### 4.3 Loss of interest

**Delay in transferring/remittance of balances in contravention of MoU and weakened internal control system of the Company resulted in loss of interest of ₹ 80.99 lakh.**

A Memorandum of Understanding (MoU) was signed between Uttarakhand Power Corporation Limited (Company) and State Bank of India (SBI)/Punjab National Bank (PNB) in July / May 2003 for undertaking banking business of the Company in different Districts of Uttarakhand with Main Bank Account at Dehradun. The MoU inter-alia provides that:-

- (i) Main Receipt Account is to be a Receipt Fund Account to which all Receipts of the Company and transfer of funds from the receipt accounts at the Bank's Branches were to be credited and transferred daily to the Main Expenditure Account. (Clause 3.1)
- (ii) All receipts of the concerned divisions etc. engaged in collection of revenue were to be credited to the Branch Receipts account. (Clause 5.2)
- (iii) Entire balance to the credit of Branch Receipt Accounts of Division shall be transferred/remitted to the Main Receipt Account at Rajpur Road, Windlass Complex Branch (SBI) and Paltan Bazar (PNB) (Astley Hall), Dehradun by concerned Branches of the Bank at the close of business hours on every Tuesday, Thursday and Saturday or immediately the following working day in case of a Bank holiday. (Clause 5.3)
- (iv) The remittance receiving Branches shall be liable to pay penal interest calculated at the rate of applicable on Bank's Prime Lending Rate plus two

*per cent per annum for number of days for delay in crediting the funds to the UPCL's receiving Account, computed as per Clause 5.6 of the MoU. (Clause 5.7)*

Test check (January 2012) of Gopeshwar division of the Company revealed that there were delays ranging from one to 30 days in transferring/remittance of balances from Branch Receipt Accounts to Main Receipt Account of the Company. There were also delays in transfer of balances from Branch Receipt Account in case of Haridwar Division (Urban) and Haridwar Division (Rural) as per information collected, which showed that delays were happening from April 2009 and despite the pursuance by divisions the bank did not show any inclination to reimburse the interest. It was further noticed that the divisions failed to reconcile the Bank statements regularly. Consequently the Head Quarter of the Company could not take up the matter with the bank on time, which showed the lack of internal control system of the Company.

The Company accepted the audit observation and stated (December 2012) that the action to recover the interest amount due from the banks had been taken up and in addition, instructions have also been issued to its distribution units to ensure regular remittance of the fund as per MoU and provide interest figures for the last three years, if any, to Head Quarter for further necessary action. However, Haridwar Division of the company had initially claimed (August 2011) which was subsequently revised (December 2012), the interest from bank, but failed to get any response. The fact remained that the divisions/Company failed to enforce the clause 5.6 and 5.7 of MoU which resulted in loss of interest of ₹ 80.99 lakh<sup>42</sup>.

The matter was referred (September 2012) to the Government; the reply was awaited (January 2013).

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<sup>42</sup> Gopeshwar Division- ₹ 14.03 lakh, Haridwar (Urban)- ₹ 27.02 lakh & Haridwar (Rural)- ₹ 39.94 lakh.

**State Infrastructure and Industrial Development Corporation of  
Uttarakhand Limited**

**4.4 Avoidable loss of ₹ 3.14 crore**

**The failure of the Company to cancel the plot as per terms and conditions of allotment resulted in non-allotment of plot to other buyer, which led to consequent loss of ₹ 3.14 crore to the Company as per rate fixed in October 2009.**

The main objective of the State Infrastructure and Industrial Development Corporation of Uttarakhand Limited (the Company) for which it was established was to promote Industrial Development of the state of Uttarakhand and through this, to generate additional employment opportunities and to bring about a significant increase in the State Domestic Product and Eventual widening of resource base of the State.

The terms and conditions of the allotment of the plot as per policy formulated by the Company stipulated that the allottee will have to complete the construction of factory building and also install machinery and plant and to start commercial production within the time period subject to maximum two years failing which allotment of the plot will be cancelled with forfeiture of deposits. The Company allotted (May 2005) a plot having area of 8,092 Sq. Metre at the cost of ₹ 7,6.47 lakh in Pharma City, Selaqui, Dehradun to a private company<sup>43</sup> (the Allottee) for manufacturing of Pharmaceuticals Products. As per Condition 8 of the allotment letter for the plot, the possession of the plot shall be handed over only after making upto date payment of the plot and execution of lease deed. The allottee also had to give an undertaking that possession of the plot would be taken within 60 days of allotment after executing the lease deed and fulfilling the other requirements.

Audit scrutiny (January 2012) revealed that the Company violating the condition of the allotment letter and ignoring the undertaking given by the allottee, gave

<sup>43</sup> M/s Sangfroid Industries Pvt. Ltd.

possession of the plot to them in September 2005 (19.09.2005) without execution of lease deed. While the lease deed had not been executed so far (November 2012), it was also seen that more than six years have elapsed from the date of allotment of the plot, yet even the Company neither realised the balance premium of ₹ 28.66 lakh from the allottee nor was factory building constructed till November 2012. As per inspection report of the Company (September 2011), RRC column and first floor slab of the factory building were only constructed. Physical inspection at the site (November 2012) by Audit also revealed that no progress had been made since the last inspection report (September 2011) of the Company.

As per terms and conditions of the allotment letter, the construction of factory building should have been completed within 2 years i.e. by May 2007 and commercial production should also have been started thereafter. But, due to the factory building not being constructed in the stipulated period, the Company returned the deposited amount of ₹ 37.15 lakh to the allottee in November 2007 without issuing cancellation letter of the plot. In the absence of cancellation letter of the plot, the allottee returned that amount in November 2007 itself to the Company. Thereafter, the Company issued (May 2010) a final notice for cancellation of plot to the allottee. Since then another notice was issued (October 2011) to the allottee for cancellation of plot but the plot has not been cancelled till November 2012. Though as per terms and condition and policy of the Company the allotment of the plot should have been cancelled in May 2007 and the same was to be auctioned through bidding after forfeiting all the deposits.

Thus, due to non cancellation of plot, the Company suffered a loss of ₹ 3.14 crore<sup>44</sup> being cost of the plot as of October 2009 besides, other dues aggregating to ₹ 62.92 lakh (including balance premium ₹ 28.66 lakh + interest ₹ 23.80 lakh, balance lease rent plus service tax ₹ 3.48 lakh and maintenance charges ₹ 6.98 lakh) were due from the allottee (November 2012). Moreover, the objective of the Company to industrialise the state and through this to generate additional employment opportunities was also defeated.

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<sup>44</sup> Area of plot = 8092 mtrs. X ₹ 3875 per mtr. (During October 2009 allotment rates were fixed by the Company) = ₹ 3.14 crore.

On this being pointed out (January 2012), the Company admitted the audit observation and stated (April 2012) that plot of the allottee was not cancelled because allottee had incurred ₹ 50.75 lakh in construction of factory. Now case of cancellation of plot is in progress and on re-allotment of plot, there is likelihood of receiving ₹ 3.14 crore as per rates of plots fixed in October 2009.

The reply of the Company was not acceptable as no evidence for cancellation or re-allotment of the plot was produced to Audit. Further, the Company did not realise the balance premium of ₹ 28.66 lakh and interest of ₹ 23.80 lakh from the allottee as of November 2012.

The matter was referred to the Government (November 2012); reply was awaited (January 2013).



(ASHWINI ATTRI)

Principal Accountant General (Audit), Uttarakhand

Dehradun  
The

Countersigned



(VINOD RAI)

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