Chapter 5

Government Commercial and Trading Activities

5.1 Overview of State Public Sector Undertakings

Introduction

5.1.1 The State Public Sector Undertakings (PSUs) consist of State Government companies and Statutory corporations. The State PSUs are established to carry out activities of commercial nature while keeping in view the welfare of the people. In Delhi, the State PSUs occupy an important place in the State economy. The State PSUs registered a turnover of ₹ 4188.32 crore for the year 2009-10 as per their latest finalised accounts as of September 2010. This turnover was equal to 2.23 *per cent* of State Gross Domestic Product (GDP) for 2009-10. Major activities of Delhi State PSUs are concentrated in power and transport sectors. The State PSUs incurred a loss of ₹ 1591.13 crore in the aggregate for 2009-10 as per their latest finalised accounts as of September, 2010. They had employed 0.36 lakh employees as of 31 March 2010. The State PSUs do not include any prominent Departmental Undertakings (DUs), which carry out commercial operations but are a part of Government departments.

5.1.2 As on 31 March 2010, there were 12 PSUs (all working), which included 10 Government companies and two Statutory corporations. None of these companies was listed on the stock exchange(s).

Audit Mandate

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

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

5.1.5 Audit of Statutory corporations is governed by their respective legislations. Out of two Statutory corporations, CAG is the sole auditor for Delhi Transport Corporation. In respect of Delhi Financial Corporation, the audit is conducted by Chartered Accountants and supplementary audit is conducted by the CAG.

Investment in State PSUs

5.1.6 As on 31 March 2010, the total investment (capital and long-term loans) in 12 PSUs (all working) was ₹ 19327.44 crore as per details given below :

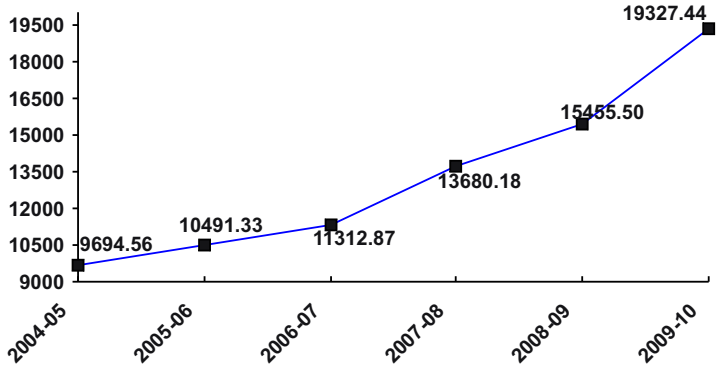
(₹ in crore)

Type of PSUs	Government Companies			Statutory Corporations			Grand Total
	*Capital	Long Term Loans	Total	*Capital	Long Term Loans	Total	
All Working PSUs	5781.34	2568.53	8349.87	1390.36	9587.21	10977.57	19327.44

* Capital includes share application money.

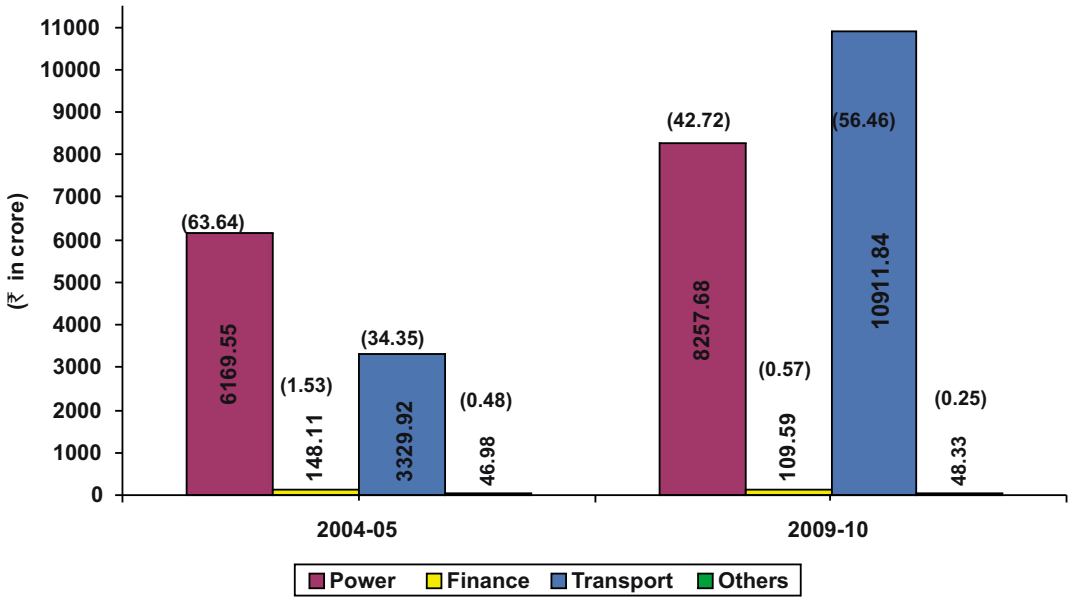
A summarised position of Government investment in State PSUs is detailed in ***Appendix 5.1.***

5.1.7 As on 31 March 2010, entire investment in State PSUs consisted of 37.11 *per cent* towards capital and 62.89 *per cent* in long-term loans. The investment has grown by 99.36 *per cent* from ₹ 9694.56 crore in 2004-05 to ₹ 19327.44 crore in 2009-10 as shown in the graph below :



Investment (capital and long term loans) (₹ in crore)

5.1.8 The investment in various important sectors and percentage thereof at the end of 31 March 2005 and 31 March 2010 are indicated below in the bar chart.



(Figures in brackets show the percentage of total investment)

As may be seen from the above chart the thrust of PSU investment was mainly in transport and power sectors. The investment in Transport Sector increased from ₹ 3,329.92 crore in 2004-05 to ₹ 10,911.84 crore in 2009-10 with corresponding increase in percentage share in total investment from 34.35 *per cent* (2004-05) to 56.46 *per cent* (2009-10). In power sector, though the investment increased from ₹ 6,169.55 crore in 2004-05 to ₹ 8,257.68 crore in 2009-10, its percentage share in total investment decreased from 63.64 *per cent* (2004-05) to 42.72 *per cent* (2009-10).

Budgetary outgo, grants/subsidies, guarantees and loans

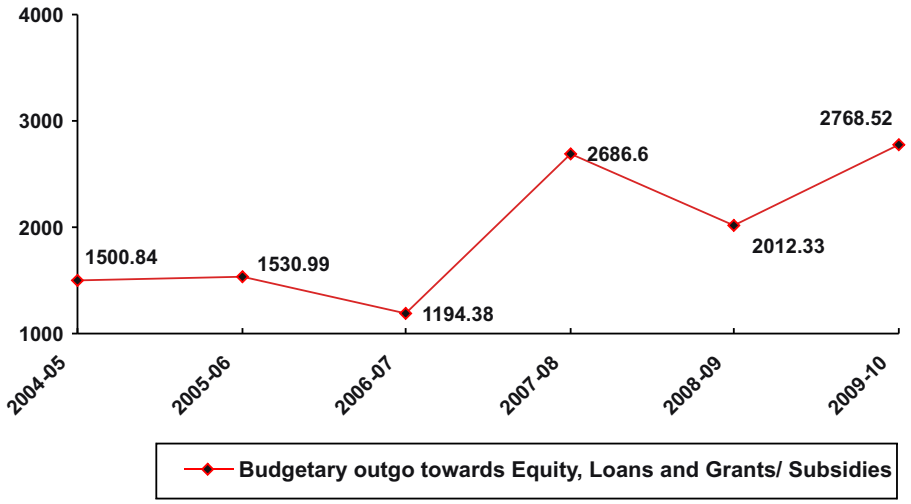
5.1.9 The details regarding budgetary outgo towards equity, loans, grants/ subsidies, guarantees issued and loans converted into equity in respect of State PSUs are given in ***Appendix 5.3.*** The summarised details are given below for

three years ended 2009-10.

(Amount ₹ in crore)

Sl. No.	Particulars	2007-08		2008-09		2009-10	
		No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
1.	Equity Capital outgo from budget	4	1367.34	3	260.82	3	626.06
2.	Loans given from budget	3	1222.78	2	1651.55	1	1981.28
3.	Grants/Subsidy received	4	96.48	5	99.96	6	161.18
4.	Total Outgo (1+2+3)		2686.60		2012.33		2768.52
5.	Loans converted into equity	1	3452.00	-	-	-	-
6.	Guarantee received during the year					1	633.22

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



The budgetary outgo towards equity, loans, grants/subsidies has shown a mixed trend during the six years period from 2004-05 to 2009-10. The budgetary outgo to State PSUs during 2009-10 was ₹ 2,768.52 crore in comparison to ₹ 1,500.84 crore during 2004-05 mainly due to release of budgetary outgo of ₹ 2,679.44 crore towards equity/loan (₹ 2,601.28 crore) and grants/ subsidy (₹ 78.16 crore) to one Transport Sector Statutory corporation (viz. Delhi Transport Corporation) during 2009-10.

5.1.11 Guarantees amounting to ₹ 633.22 crore were issued by State Government to one Power Sector PSU (viz. Delhi Transco Limited) during the year 2009-10.

Reconciliation with Finance Accounts

5.1.12 The figures in respect of equity, loans and guarantees outstanding as per records of State PSUs should agree with that of the figures appearing in the Finance Accounts of the State. In case the figures do not agree, the concerned PSUs and the Finance Department should carry out reconciliation of differences. The position in this regard as at 31 March 2010 is stated below:

(₹ in crore)

Outstanding in respect of	Amount as per Finance Accounts	Amount as per records of PSUs	Difference
Equity	6927.18	6831.81	95.37
Loans*	877.11	591.61	285.50

5.1.13 We observed that the differences occurred in respect of six PSUs and some of the differences were pending reconciliation since many years. In order to reconcile the discrepancy in figures of investment by the State Government in Government companies/ corporations, letters were written (November 2010) to the Controller of Accounts, Government of NCT of Delhi and the concerned State PSUs. The Government and the PSUs should take concrete steps to reconcile the differences in a time-bound manner.

Performance of PSUs

5.1.14 The financial results of PSUs, financial position and working results of working Statutory corporations are detailed in ***Appendices 5.2, 5.5 and 5.6*** respectively. A ratio of PSU turnover to State GDP shows the extent of PSU activities in the State economy. Table below provides the details of working

* Loan figure as per finance accounts made available for six Delhi State PSUs at serial no.1, 2,4,5,6 and 7 of Appendix 5.1. Loan figures as per finance accounts in respect of remaining six PSUs were not available.

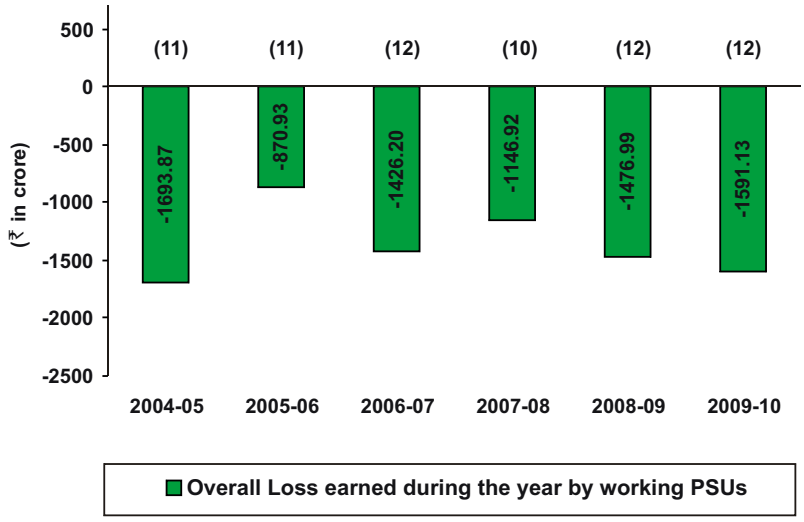
PSU turnover and State GDP for the period 2004-05 to 2009-10.

(₹ in crore)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Turnover[∝]	6886.00	7734.21	8283.41	3019.71	3555.63	4188.32
State GDP	92053	105815	125381	144303	165948	188064
Percentage of Turnover to State GDP	7.48	7.31	6.61	2.09	2.14	2.23

It can be seen from the above that the turnover of PSUs increased constantly upto 2006-07 but declined drastically by more than 63 *per cent* during 2007-08 as compared to 2006-07 mainly because of transfer of major activities of one power sector PSU (Delhi Transco Limited) relating to purchase and sale of power to power distribution companies in private sector with effect from 1 April 2007. This has correspondingly caused significant decline in percentage of turnover to GDP in subsequent years.

5.1.15 Losses incurred by State working PSUs during 2004-05 to 2009-10 are given below in a bar chart.



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

It can be seen from the bar chart that the working PSUs incurred overall losses which ranged between ₹ 870.93 crore to ₹ 1591.13 crore during 2005-06 to 2009-10. During the year 2009-10, out of 12 working PSUs, 8 PSUs earned profit of ₹ 454.25 crore and 4 PSUs incurred loss of ₹ 2045.38 crore. The major

[∝]Turnover as per the latest finalised accounts as of 30 September.

contributors to profit were Pragati Power Corporation Limited (₹ 147.34 crore), Indraprastha Power Generation Company Limited (₹ 120.67 crore), Delhi Transco Limited (₹ 93.09 crore) and Delhi Power Company Limited (₹ 59.40 crore). Heavy losses were incurred by Delhi Transport Corporation (₹ 2042.73 crore).

5.1.16 The losses of PSUs are mainly attributable to deficiencies in financial management, planning, implementation of projects, running of operations and monitoring. A review of latest Audit Reports of CAG shows that the State PSUs incurred losses to the tune of ₹ 1,296.59 crore and infructuous investment of ₹ 181.44 crore which were controllable with better management. Year wise details from Audit Reports are stated below.

(₹ in crore)

Particulars	2007-08	2008-09	2009-10	Total
Net Profit (loss)	(1146.92)	(1476.99)	(1591.13)	(4215.04)
Controllable losses as per CAG's Audit Report	17.78	576.62	702.19	1296.59
Infructuous Investment	4.96	176.48	-	181.44

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

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

(₹ in crore)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Return on Capital Employed (*per cent*)	*	*	*	6.78	*	0.48
Debt	8844.32	9639.21	10452.39	7857.61	8910.50	12155.74
Turnover[r]	6886.00	7734.21	8283.41	3019.71	3555.63	4188.32
Debt/ Turnover Ratio	1.28:1	1.25:1	1.27:1	2.60:1	2.51:1	2.90:1
Interest Payments	902.40	791.64	964.81	1302.00	1474.21	1614.00
Accumulated Profits (losses)	(7142.65)	(8104.09)	(8712.51)	(10851.79)	(12395.49)	(14266.66))

(Above figures pertain to all PSUs).

5.1.19 The above parameters exhibit deterioration in the financial position of the PSUs. During 2004-05 to 2009-10, the percentage of Return on Capital Employed was negative for all the years except during 2007-08 and 2009-10. The debt turnover ratio had shown marginal improvement from 1.28:1 in

* Represent negative figures of Return on Capital Employed.

[r] Turnover of working PSUs as per the latest finalised accounts as of 30 September.

2004-05 to 1.25:1 in 2005-06 but started deteriorating thereafter and was registered at 2.90:1 during 2009-10. The accumulated losses have also increased steadily from ₹ 7142.65 crore in 2004-05 to ₹ 14266.66 crore in 2009-10.

5.1.20 As per the recommendations of the Twelfth Finance Commission the State must adopt a modest rate of return on the investment made in public enterprises at the rate of five *per cent* in the form of dividend on equity. As per their latest finalised accounts eight[♣] PSUs earned a profit of ₹ 454.25 crore however, only four companies declared dividend of ₹ 36.57 crore viz. Pragati Power Corporation Limited (₹ 24.92 crore), Delhi Transco Limited (₹ 10.90 crore), Delhi Tourism and Transportation Development Corporation Limited (₹ 0.63 crore), and Delhi Financial Corporation (₹ 0.12 crore), which was 0.63 *per cent* of equity investment (₹ 5,773.13 crore) in these eight PSUs and 0.51 *per cent* of total equity investments (₹ 7,155.19 crore) in all twelve State PSUs.

Arrears in finalisation of accounts

5.1.21 The accounts of the Companies for every financial year are required to be finalised within six months from the end of the relevant financial year under Sections 166, 210, 230, 619 and 619-B of the Companies Act, 1956. 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 table below provides the details of progress made by working PSUs in finalisation of accounts by September 2010.

Sl. No.	Particulars	2005-06	2006-07	2007-08	2008-09	2009-10
1.	Number of Working PSUs	11	12	10	12	12
2.	Number of accounts finalised during the year	14	11	14	11	15[*]
3.	Number of accounts in arrears	13	14	10	11	8
4.	Average arrears per PSU (3/1)	1.18	1.17	1.00	0.92	0.67
5.	Number of Working PSUs with arrears in accounts	3	4	2	3	2
6.	Extent of arrears	1 to 11 years	1 to 9 years	1 to 8 years	1 to 9 years	1 to 7 years

[♣] Delhi SC/ST/OBC Minorities Handicapped Financial and Development Corporation Limited, Delhi State Industrial and Infrastructure Development Corporation Limited, Delhi Power Company Limited, Delhi Transco Limited, Indraprastha Power Generation Company Limited, Pragati Power Corporation Limited, Delhi Tourism and Transportation Development Corporation Limited and Delhi Financial Corporation.

[*] Includes the accounts of one PSU i.e. Shahjahanabad Redevelopment Corporation for the year 2008-09 which were not furnished for supplementary audit and were directly adopted in the Annual General Meeting without CAG Audit.

5.1.22 From the table it is noticed that average arrear position of accounts per PSU is improving each year. During 2009-10, out of two PSUs having arrear of accounts, only one PSU (Delhi SC/ST/OBC/Minorities & Handicapped Financial and Development Corporation Limited) had major backlog of seven years of accounts mainly because of shortage of trained manpower. The other PSU had only a year's accounts in arrears as on 30 September 2010.

5.1.23 The State Government had invested ₹ 22.17 crore (equity: ₹ 15.45 crore, loans: ₹ 2.49 crore and grants/ subsidy: ₹ 4.23 crore) in one PSU (Delhi SC/ST/OBC Minorities Handicapped Financial and Development Corporation Limited) during the years for which its accounts have not been finalised as detailed in Appendix 5.4. Delay in finalisation of accounts may also result in risk of fraud and leakage of public money apart from violation of the provisions of the Companies Act, 1956.

5.1.24 The administrative departments have the responsibility to oversee the activities of these entities and to ensure that the accounts are finalised and adopted by these PSUs within the prescribed period. As a result of this we could not assess the net worth of these PSUs. We had also taken up the matter of arrears in accounts every month with the Principal Secretary (Finance), Government of NCT of Delhi and with the Chief Secretary, Government of NCT of Delhi in November 2010 to expedite clearance of the backlog of arrears in accounts in a time bound manner.

5.1.25 In view of above state of arrears, it is recommended that:

- **The Government may consider outsourcing the work relating to preparation of accounts wherever the staff is inadequate or lacks expertise.**

Accounts Comments and Internal Audit

5.1.26 Ten working companies forwarded their audited twelve accounts to Accountant General (AG) during the year 2009-10. All these accounts were selected for supplementary audit. The audit reports of statutory auditors appointed by CAG and the supplementary audit of CAG indicate that the quality of maintenance of accounts needs to be improved substantially. The

details of aggregate money value of comments of statutory auditors and CAG are given below:

(Amount ₹ in crore)

Sl. No.	Particulars	2007-08		2008-09		2009-10	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1.	Decrease in profit	3	4.94	3	41.21	4	17.48
2.	Increase in profit	-	-	-	-	4	86.71
3.	Increase in loss	2	1048.67	2	658.29	1	7.52
4.	Decrease in loss	-	-	-	-	1	1.00
5.	Non-disclosure of material facts	1	5.04	-	-	5	242.27
6.	Errors of classification	1	29.21	-	-	3	4.30

5.1.27 During the year, the statutory auditors had given unqualified certificate for two accounts, qualified certificates for ten accounts. Additionally, CAG gave qualified certificates for eight accounts, unqualified certificate for four accounts after the supplementary audit. There were seven instances of non-compliance with Accounting Standards during the year.

5.1.28 Some of the important comments in respect of accounts of Companies are stated below:

Delhi SC /ST /OBC Minorities, Handicapped Financial and Development Corporation Limited (2002-03)

- Current Liabilities and Provisions were understated and Profit was overstated by ₹ 1.25 crore on account of (i) short provision of leave Encashment (₹ 0.22 crore) and (ii) non provision of expenses payable (₹ 1.03 crore).

- Interest accrued had been debited to interest income account and thus resulted in understatement of income and profit for the year by ₹ 5.30 crore each.

- Interest accrued on FDR renewed comes to ₹ 1.70 crore approximately while interest accrued is shown at ₹ 0.87 crore thereby resulting in understatement of income (Net Profits) and current assets by ₹ 0.83 crore each.

- Interest earned amounting to ₹ 1.22 crore on unspent grant in aid has been treated as income of the company. This has resulted in overstatement of profit and understatement of liability towards unspent grant in aid by ₹ 1.22 crore.

Delhi Tourism and Transportation Development Corporation Limited (2009-10)

- Non compliance of AS-28 " Impairment of Assets" issued by the ICAI on account of non provision of impairment losses of ₹ 1.01 crore in the value of fixed assets resulted in overstatement of Profit and Assets and Reserves by that extent.

- Advances and other amounts recoverable in cash or in kind or for value to be received in the Balance Sheet as at 31 March 2010, include an unreconciled old outstanding amount of ₹ 0.82 crore in the Excise Duty Advance account for IMFL for which no details are available.

Delhi State Civil Supplies Corporation Limited (2009-10)

- The existing provision towards Leave Encashment as liability remained short by ₹ 3.34 crore with corresponding understatement of loss for the year to that extent.

- The Current liabilities were understated by ₹ 2.35 crore on account of (i) Licence fee payable for shops and godowns allotted by PWD, DDA and DSCSC but not formally surrendered by the Company (₹ 1.59 crore), (ii) Miscellaneous liabilities (₹ 0.48 crore) pertaining to the year 2009-10 but discharged in 2010-11 and (iii) Amounts against the deposit works for construction of Siraspur godown (₹ 0.28 crore). Consequently loss for the year was understated by ₹ 2.07 crore and Fixed assets by ₹ 0.28 crore.

Delhi State Industrial & Infrastructure Development Corporation Limited (2008-09)

- Capital commitments do not include the amount of committed liability of ₹ 111.12 crore on account of Low Cost Housing Scheme.

Delhi Power Company Limited (2009-10)

- The Company did not transfer the dividend received during 2009-10 amounting to ₹ 38.32 crore to Power Stabilisation Fund created for the purpose of grant of short term loan to Power Companies in Delhi as required by the Government of NCT of Delhi. Consequently the Accumulated losses and Power Stabilisation Fund was understated by ₹ 38.32 crore.

- Out of the Sundry Debtors amounting to ₹ 448.13 crore taken over from erstwhile Delhi Vidyut Board relating to cases under litigation and Government connections that are under examination for appropriate provisioning/write off, ₹ 332.89 crore are doubtful of recovery and need to be provided for, thus overstating Sundry Debtors by the same amount.

5.1.29 Similarly, two working statutory corporations forwarded two accounts to Accountant General (AG) during the year 2009-10. Of these, one account of one Statutory corporation pertained to sole audit by CAG which was finalised in December 2010 and its audit was in progress (December 2010). The remaining one account of one corporation was selected for supplementary audit. The audit reports of statutory auditors and the sole/ supplementary audit of CAG indicate that the quality of maintenance of accounts needs to be improved substantially. The details of aggregate money value of comments of statutory auditors and CAG are given below:

(Amount ₹ in crore)

Sl. No.	Particulars	2007-08		2008-09		2009-10*	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1.	Decrease in profit	1	1.40	1	1.68	-	-
2.	Increase in profit	-	-	-	-	1	0.26
3.	Increase in loss	1	7.16	-	-	1	543.05
4.	Non-disclosure of material facts	1	1.36	-	-	1	19.43
5.	Errors of classification	1	0.73	-	-	1	3.82
6.	Decrease in loss	-	-	-	-	1	1.17

During the year, the one year accounts (2009-10) of one corporation (Delhi Financial Corporation) audit of which was completed, received qualified certificates from Statutory auditors and CAG.

5.1.30 Some of the important comments in respect of accounts of the Statutory Corporations are stated below.

Delhi Financial Corporation (2009-10)

- As per the agreement between the corporation and Delhi SC /ST /OBC Minorities, Handicapped Financial and Development Corporation (DSCFDC) for the CNG buses Financing Scheme 9.8 *per cent* of the total loan recovered was to be transferred to DSCFDC. The corporation settled 40 loan cases for which it provided short liability of ₹ 1.70 lakh and in respect of 40 unsettled cases the corporation provided excess liability of ₹ 35.88 lakh. Thus, the current liabilities were overstated and Profit was understated by ₹ 0.34 crore on account of settled and unsettled cases under CNG buses Financing Scheme.

*Includes the impact of comments on the accounts of one corporation (Delhi Transport Corporation), which were finalised in October 2009 but Separate Audit Report issued during current year (2009-10).

Delhi Transport Corporation (2008-09)

- The Corporation has not got done actuarial valuation of the provision for Gratuity liability required as on 31 March 2009 in contravention of the requirement of AS-15. Further as per the actuarial valuation of the provision for Gratuity as on 31 March 2008, a liability of ₹ 433 crore existed. As against this the Corporation had Gratuity fund to the extent of ₹ 67.14 crore only as on 31st March 2009 resulting in understatement of Gratuity fund and Salary & Allowances by ₹ 365.86 crore each and consequent understatement of accumulated losses by the same amount.

- Based on recommendations of the Sixth Central Pay Commission for revision of pay and allowances of its employees w.e.f 1 January 2006, the Corporation paid 40 per cent arrears during the year 2008-09. However they failed to make the provision for the balance 60 *per cent* arrears to be payable to the employees amounting to ₹ 155 crore. This has resulted into understatement of salary & allowances and current liabilities by ₹ 155 crore and consequent under statement of losses by the same amount.

- The non operating revenue includes interest income of ₹ 30.99 crore accrued but not due on short term fixed deposits with banks. It was observed that while calculating the above interest the Corporation has also accounted for the interest receivable for the period beyond 31 March 2009. This has resulted in overstatement of interest income and sundry debtors by ₹ 8.28 crore each and consequent understatement of losses by the same amount.

- The Current Liabilities and losses were understated by ₹ 6.81 crore due to non-provision of Service Tax on income from advertisement for the period May 2006 to March 2008.

5.1.31 The Statutory Auditors (Chartered Accountants) are required to furnish a detailed report upon various aspects including internal control/ internal audit systems in the companies audited in accordance with the directions issued by the CAG to them under Section 619(3) (a) of the Companies Act, 1956 and to identify areas which needed improvement. An illustrative resume of major comments made by the Statutory Auditors on possible improvement in the internal audit/ internal control system in respect of seven companies[£] for the

[£]Sr. No. 1,2,6,7,8,9 and 10 in Appendix-5.2.

year 2008-09 and six companies[ii] for the year 2009-10 are given below:

Sl. No.	Nature of comments made by Statutory Auditors	Number of companies where recommendations were made	Reference to serial number of the companies as *per* Appendix 5.2
1.	Non-fixation of minimum/ maximum limits of store and spares	4	A-2, 5, 6, 7
2.	Absence of internal audit system commensurate with the nature and size of business of the company	4	A- 1, 7, 9, 10
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	A- 1, 2, 5, 7, 8, 9
4.	Non maintenance of cost record	2	A-1, 5

Status of placement of Separate Audit Reports

5.1.32 The following table shows 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.

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.	Delhi Financial Corporation	2008-09	2009-10	5.10.10	Not furnished by the administrative department.
2.	Delhi Transport Corporation	2007-08	2008-09 2009-10	9.2.10 Audit in progress	-do- -

Delay in placement of SARs weakens the legislative control over Statutory corporations and dilutes the latter's financial accountability. The Government should ensure prompt placement of SARs in the legislature(s).

[ii] Sr. No. 1,2,6,7,8,9 and 10 in Appendix-5.2.

Disinvestment, Privatisation and Restructuring of PSUs

5.1.33 The State Government had not undertaken the exercise of disinvestment, privatisation or restructuring of any of the State PSUs during 2009-10.

Reforms in Power Sector

5.1.34 The State has a Delhi Electricity Regulatory Commission (DERC) which was formed in March 1999 under the erstwhile Electricity Regulatory Commission Act 1998* with the objective of rationalisation of electricity tariff, advising in matters relating to generation, transmission and distribution of electricity in the State and issue of licences. During 2009-10, DERC issued 41 orders (four on Annual Revenue Requirements and 37 on other matters).

*The Electricity Regulatory Commission Act, 1998 has been repealed by the Electricity Act, 2003 with effect from June 2003.

Performance Audit

5.2 Power Generation Activities in Delhi

Executive Summary

Power is an essential requirement for all facets of life and has been recognized as a basic human need. The availability of reliable and quality power at competitive rates is very crucial to sustain growth of all sectors of the economy. As part of the power sector reforms, the Government of National Capital Territory of Delhi (GNCTD) notified the Delhi Electricity Reform (Transfer Scheme) Rules, 2001 on 20 November 2001. Consequently, two coal based and one gas based power stations, having installed capacity of 664.5 MW, were transferred to Indraprastha Power Generation Company Limited (IPGCL) with effect from 30 June 2002. One Gas based Power Station of 330 MW capacity under a new entity named Pragati Power Corporation Ltd (PPCL) was commissioned in March 2003. The performance audit of the two power generating companies in Delhi for the period 2005-06 to 2009-10 was conducted to ascertain whether the generating companies were able to achieve the aims and objectives stated in the National Electricity Plan and whether the augmentation planned had been achieved so as to achieve 'Power for all' by 2012.

Financial Performance

The accumulated losses and borrowings of IPGCL stood at ₹ 15.99 crore and ₹ 362.54 crore respectively and general reserve and borrowings of PPCL stood at ₹ 594.96 crore and ₹ 843.23 crore as on 31 March 2010. The cost of generation of per unit electricity of IPGCL increased from ₹ 2.44 to ₹ 3.38 while in PPCL it decreased from ₹ 1.83 to ₹ 1.68 during the review period.

Capacity addition and execution of Contracts

Delhi State had total installed capacity of 994.5 MW against the peak demand of 3558 MW at the beginning of 2005-06. At the end of 2009-10, the installed capacity reduced to 735 MW against the peak demand of 4464 MW leaving a deficit of 3729 MW. The deficit of own generation versus peak demand had partly increased because of growth of 25.46 *per cent* in demand of power requirement since the beginning of 2005-06, with no corresponding capacity addition during review period.

In order to enhance capacity addition, PPCL awarded the contract (April 2008) on turnkey basis for design, engineering, manufacturing, supply, installation and commissioning of 1500 MW gas turbine plant at Bawana at a value of ₹ 3500 crore to BHEL on single quotation basis. The option of re-tendering was not considered because of urgency to complete the project before the Common Wealth Games but as a result of delays, the capacity addition of 1250 MW, stipulated before the games was not available.

Input Efficiency

Consumption of inputs was in excess of norms to the extent of ₹ 107.67 crore in fuel (coal and gas), ₹ 5.27 crore in secondary oils and ₹ 7.87 crore in de-mineralised water. Further, it was also observed that both the gas power stations suffered generation loss of 954.51 MUs valued at ₹ 114.50 crore due to short supply of gas by GAIL, for which no claim was lodged whereas these stations had to incur liability of ₹ 37.75 crore on account of failure

to take the minimum guaranteed quantity of gas as a result of inequitable agreement clause with GAIL.

Operational Performance

The norms fixed by CEA / DERC for generation of power were not achieved by the two power generation companies. There was a shortfall in generation by two companies during the review period which was equivalent to 1518.05 MUs valued at ₹ 239.85 crore. Further, there was shortfall to the extent of 2989.57 MUs and 1578.21 MUs valuing ₹ 510.03 crore and ₹ 156.48 crore on account of possible generation to actual generation based on hours turbines actually operated in respect of two power stations of IPGCL and one station of PPCL examined in audit. The shortfall in generation was attributable to the low plant load factor, low capacity utilisation, major shutdown and delay in repairs and maintenance. Further, for the purpose of proper and optimum evacuation on generation from power plants, there is need to have strengthened network at plants to evacuate power. RTPS and GTPS lost potential generation of 53.91 MUs valued at ₹ 8.63 crore due to evacuation constraints at both the plants. It was observed that forced outages at RTPS and GTPS of IPGCL in excess of 10 per cent norms fixed by CEA resulted in loss of generation of 971.88 MUs valuing ₹ 163.08 crore during 2005-10. Auxiliary consumption of power at RTPS and GTPS of IPGCL was in excess of norms resulting in excess consumption of 88.30 MUs valuing ₹ 16.31 crore in the review period. Further, instances of poor quality of repair and maintenance works were also noticed.

Financial Management

There was net decrease in cash and cash equivalent in 2008-09 and 2009-10 in respect of IPGCL while in PPCL decrease in cash and cash equivalent was in the years 2005-06, 2006-07 and 2009-10. Main reasons for cash deficit include heavy interest commitment on loans and locking up of funds in inventory not required immediately. Further, holding of stocks of spares in excess of norms prescribed by CERC led to blocking of funds to the tune of ` 101.03 crore.

Environmental Issues

Consent from Delhi Pollution Control Committee (DPCC) is mandatory to run a power station in Delhi. Two power stations viz. RTPS and GTPS continued to run without statutory consent to operate certificate from DPCC for 20 years and 18 years respectively. Air, noise and water pollution levels at these power stations were also not kept at levels prescribed by DPCC. The recommendations made by Energy Auditors in RTPS and GTPS in 2006-07 were not implemented even after a lapse of three years.

Conclusions and Recommendations

Generation companies in Delhi could not keep pace with growing demand of power in the State. Capacity addition of 1500 MW envisaged by November 2010 (1250 MW by Common Wealth Games) could not come up due to delay in execution of mega power plant at Bawana which is behind schedule by about eight months. Operational performance of power stations of IPGCL were affected due to low PLF, low plant availability, poor capacity utilization, excessive forced outages due to running on partial load, frequent shut downs and delays in repair & maintenance. Air, noise and water pollution levels at RTPS and GTPS were neither monitored regularly due to absence of online monitoring equipments nor kept with in level prescribed by DPCC. The review contains seven recommendations which include strengthening project monitoring system, enhancing efficiencies to consume fuel within prescribed norms, ensuring adequate availability of gas, strengthening repair and maintenance practices and ensure compliance to environmental laws, etc.

5.2.1 Introduction

Power is an essential requirement for all facets of life and has been recognized as a basic human need. The availability of reliable and quality power at competitive rates is very crucial to sustain growth of all sectors of the economy. The Electricity Act 2003 provides a framework conducive to the development of the Power Sector, promotes transparency, competition and protects the interest of the consumers. In compliance with Section 3 of the ibid Act, the Government of India (GOI) prepared the National Electricity Policy (NEP) in February 2005 in consultation with the State Governments and Central Electricity Authority (CEA) for development of the Power Sector based on optimal utilisation of resources like coal, gas, nuclear material and hydro and renewable sources of energy. The policy aims at, inter alia, laying guidelines for accelerated development of the Power Sector. It also requires CEA to frame the National Electricity Plan once in five years.

5.2.2 Status of Power Sector in Delhi State

As part of the power sector reforms the Delhi Electricity Reform Act, 2000 (DERA) was enacted. Pursuant to the provisions of this Act, the Government of National Capital Territory of Delhi (GNCTD) notified the Delhi Electricity Reform (Transfer Scheme) Rules, 2001 on 20 November 2001. The Transfer Scheme provided for unbundling of the functions of Delhi Vidyut Board (DVB) and the transfer of existing transmission assets of DVB to Delhi Transco Limited and the existing distribution assets to three Distribution Companies (Discoms). Further, all the assets, liabilities, rights and interest of DVB in the generating stations were transferred to Indraprastha Power Generation Company Limited (IPGCL) w.e.f. 30 June 2002, which had three power stations detailed below:

- Indraprastha Power Station (IP Station) with total capacity of 247.5 MW (3x62.5+1x60). This station was closed down in December 2009.
- Rajghat Thermal Power Station (RTPS) with a total capacity of 135 MW (2x67.5).
- Gas Turbine Power Station (GTPS) with a total capacity of 282 MW (6x30+3x34).

One gas based power station of 330 MW capacity having two gas turbines of 104 MW each and one steam turbine of 122 MW under a new entity named Pragati Power Corporation Limited (PPCL) was commissioned in March 2003.

The requirement of power in Delhi was met from own generation as well as import of power by distribution companies from other sources. The electricity requirement of Delhi state during 2005-06 was assessed at 31816.32 MUs during the year of which only 31536 MUs was met leaving a shortfall of 280.32 MUs which works out to 0.88 per cent of the requirement. In 2009-10, against the requirement of 39104.64 MUs, only 38614.08 MUs was met, thereby leaving a shortfall of 490.56 MUs (1.25 *per cent*).

The total installed power generation capacity in the state was 994.5 MW in 2005-06 against the maximum demand of 3558 MW in the beginning of 2005-06 leaving a deficit of 2563.5 MW. As on 31 March 2010, the comparative figure of maximum demand and available capacity was 4464 MW and 735 MW with deficit of 3729 MW. Thus, though the demand increased by 906 MW (25.46 *per cent*), there was no capacity addition during the period of five years. In fact, own capacity of power generation in Delhi had reduced by 259.5 MW due to closure of IP Station with capacity of 247.5 MW in December 2009 and reduction in rating of steam turbine units of GTPS by 12 MW. With the result, the percentage of own generation to maximum demand has reduced from 17.62 in 2005-06 to 12.90 in 2009-10.

The two power generating companies of Delhi viz. IPGCL and PPCL were incorporated on 4 July 2001 and 9 January 2001 respectively under the Companies Act 1956 within the administrative control of the Power Department of the GNCTD. Both the generating companies are run by the same management with a Board of Directors comprising of a Chairman, a Managing Director, Directors and functional Directors appointed by the GNCTD. The BoD is headed by the Chairman (who is ex-officio Secretary (Power), Government of NCT of Delhi). The Managing Director is the Chief Executive and is assisted in the day to day operations by the functional Directors and General Managers of the two thermal generation stations of IPGCL and one power station of PPCL. The turnover of the IPGCL and PPCL was ₹ 865.78 crore and ₹ 500.70 crore respectively aggregating to ₹ 1366.48 crore in 2009-2010, which was equal to 32.63 *per cent* of the State PSUs turnover and 0.73 per cent of the State GDP during the year. IPGCL and PPCL employed 1323 and 102 employees respectively as on 31 March 2010.

Reviews on the working of the RTPS of IPGCL, fuel management in power stations of IPGCL, working of GTPS of IPGCL and IP Station of IPGCL were included in the Report of the Comptroller and Auditor General of India for the years 2002, 2004, 2005 and 2007 respectively of Government of NCT of Delhi. Out of the above, the Report of GTPS of IPGCL was discussed by COPU (February 2010). However, recommendations are awaited (December 2010).

5.2.3 Scope and Methodology of Audit

The present review conducted during February 2010 to May 2010 covers the performance of the IPGCL and PPCL pertaining to the period from 2005-06 to 2009-10. The review mainly deals with planning, project management, financial management, operational performance, environmental issues and monitoring by the top management. The audit examination involved scrutiny of records at the Head Office of IPGCL and PPCL and two power stations of IPGCL and one power station of PPCL.

The methodology adopted for attaining the audit objectives with reference to the audit criteria consisted of explaining the audit objectives to the top management in an entry conference, scrutiny of records at the head office and selected units, interaction with the auditee personnel, analysis of data with reference to audit criteria, discussion of audit findings with the management and issue of draft review to the management for comments.

5.2.4 Audit Objectives

The objectives of the performance audit were:

Planning and Project Management

- To assess whether capacity addition programme to meet the shortage of power in the State is in line with the National Policy of Power for All by 2012;
- To assess whether a plan of action is in place for optimization of generation from the existing capacity; and
- To ascertain whether the execution of projects was managed economically, effectively and efficiently.

Financial Management

- To ascertain whether the projections for funding of new projects and upgradation of existing generating units were realistic including the identification and optimal utilization for intended purpose;
- To assess whether all claims including energy bills and subsidy claims were properly raised and recovered in an efficient manner; and
- To assess the soundness of financial health of the generation companies.

Operational Performance

- To assess whether the power plants were operated efficiently and preventive maintenance as prescribed was carried out minimizing the forced outages;
- To assess whether requirements of each category of fuel was worked out realistically, procured economically and utilized efficiently;
- To assess whether the manpower requirement was realistic and its utilization optimal; and
- To assess whether the life extension (LE), Renovation and Modernization (R & M) programmes were ascertained and carried out in an economical, effective and efficient manner.

Environmental Issues

- To assess whether the various types of pollutants (air, water, noise, hazardous waste) in power stations were within the prescribed norms and the power stations complied with the statutory requirements; and
- To assess the adequacy of waste management system and its implementation.

Monitoring and Evaluation

- To ascertain whether adequate MIS existed in the entities to monitor operational performance and assess its impact.

5.2.5 Audit Criteria

The audit criteria adopted for assessing the achievement of the audit objectives were:

- National Electricity Plan, norms/guidelines of CEA regarding planning and implementation of the projects;
- Standard procedures for award of contract with reference to principles of economy, efficiency and effectiveness;
- Targets fixed for generation of power ;
- Parameters fixed for plant availability, Plant Load Factor (PLF), Thermal Efficiency / Station Heat Rate etc by DERC/CERC;
- Performance of best performers in the regions/all India averages;
- Prescribed norms for planned outages; and
- Environmental laws.

5.2.6 Financial Position and Working Results

The financial position of the IPGCL for the five years ending 2009-10 is given in ***Appendix 5.7***. It may be seen from the appendix that accumulated losses in IPGCL reduced from ₹ 134.32 crore, to ₹ 120.66 crore in 2008-09 and further to ₹ 15.99 crore in 2009-10 because the Company earned profit in the years 2008-09 and 2009-10.

The details of working results like cost of generation of electricity, revenue realisation, net surplus/ loss and earnings and cost per unit of operation are given in ***Appendix 5.8***. The turnover of IPGCL increased by 38.29 *per cent* from 2005-06 to 2008-09, however, it declined by 0.09 *per cent* in 2009-10 following closure of its IP Station. Increase in turnover from 2005-06 to 2009-10 was due to higher realisation per unit, though generation had decreased by 14.53 *per cent* in 2009-10 in comparison to 2005-06. The IPGCL could earn profit only in 2008-09 and 2009-10 during the review period due to higher realisation per unit as compared to increase in cost per unit.

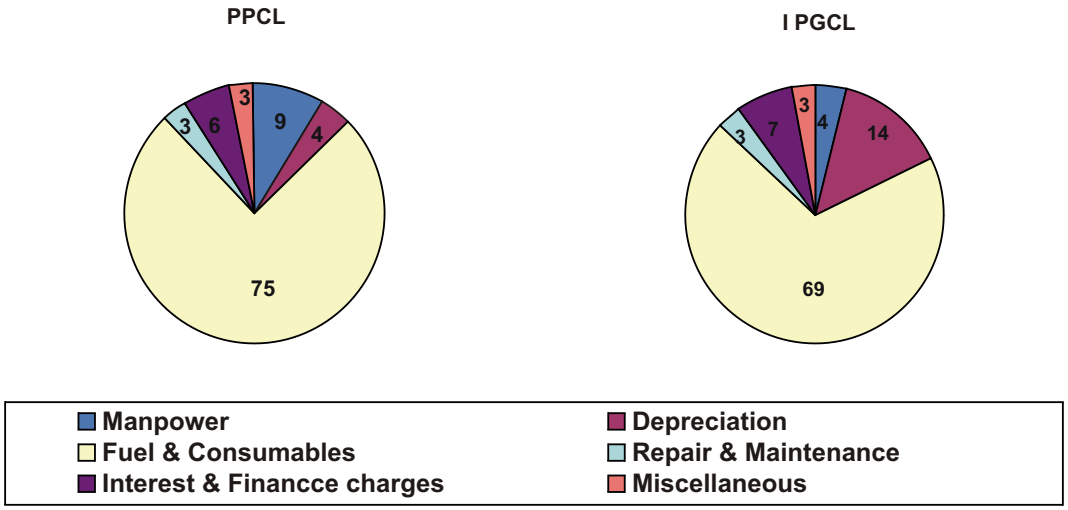
The financial position of PPCL for the five year period ending 2009-10 is given in the ***Appendix 5.9***. It may be seen that the reserves and surplus of the Company had increased by 248 *per cent* from 2005-06 to 2009-10, indicating the sound financial health of the Company.

The details of working results like cost of generation of electricity, revenue realisation, net surplus/ loss and earnings and cost per unit of operation are given in ***Appendix 5.10.*** It may be seen that the financial performance of the Company was not consistent as its turnover increased in 2006-07 as compared to 2005-06 but declined in 2007-08. Again it declined in 2009-10 as compared to 2008-09. This was mainly due to variation in tariffs in different years allowed by DERC and consequent accounting of the impact of same in the financial statements.

5.2.7 Elements of Cost

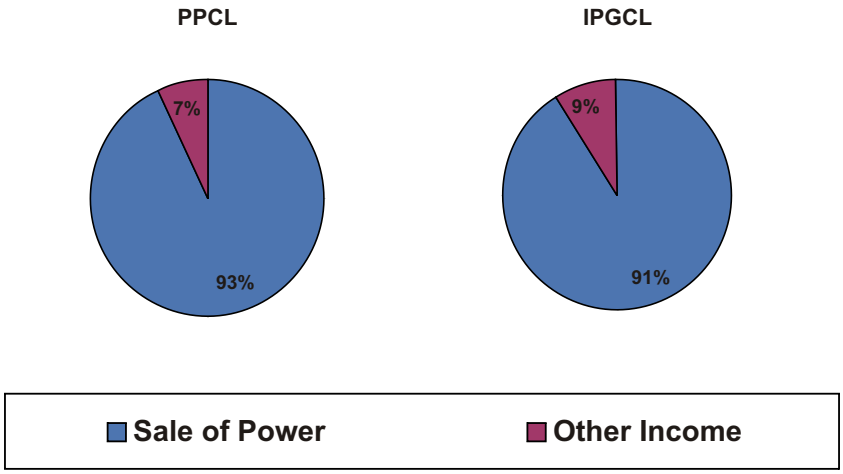
In PPCL, the constituents of major elements of cost are Fuel and consumables, manpower and Interest & Finance charges, whereas, in IPGCL the major constituents are Fuel and consumables, depreciation and Interest & Finance

charges. The percentage wise break-up of costs for 2009-10 is given below in the pie-chart.



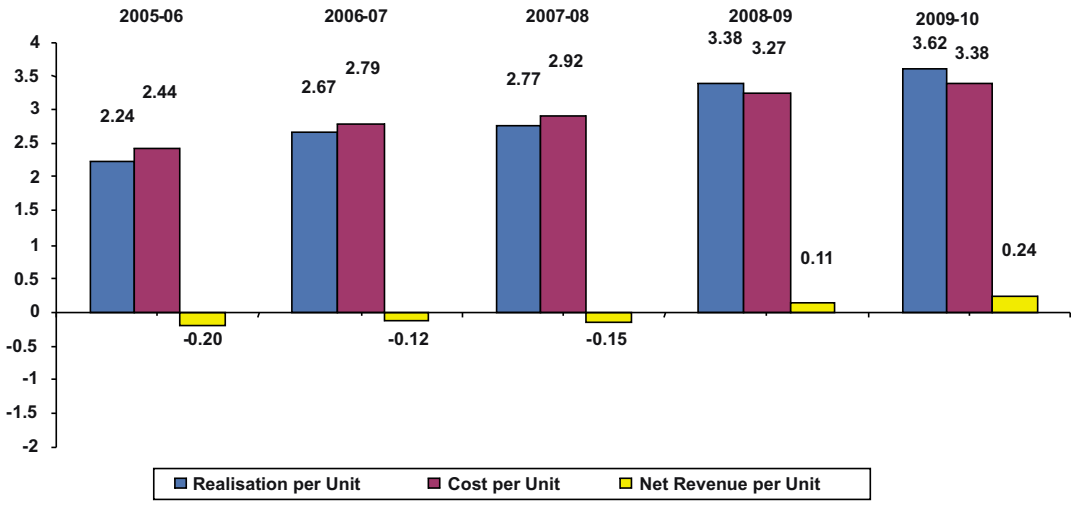
5.2.8 Elements of Revenue

Sale of power in both PPCL and IPGCL constituted the major element of revenue. The percentage wise break-up of revenue for 2009-10 is given below in the pie-chart.



5.2.9 Recovery of cost of operations

The IPGCL was not able to recover its cost of operations during the years 2005-06, 2006-07 and 2007-08. The net revenue turned positive from 2008-09 as shown in the graph below:

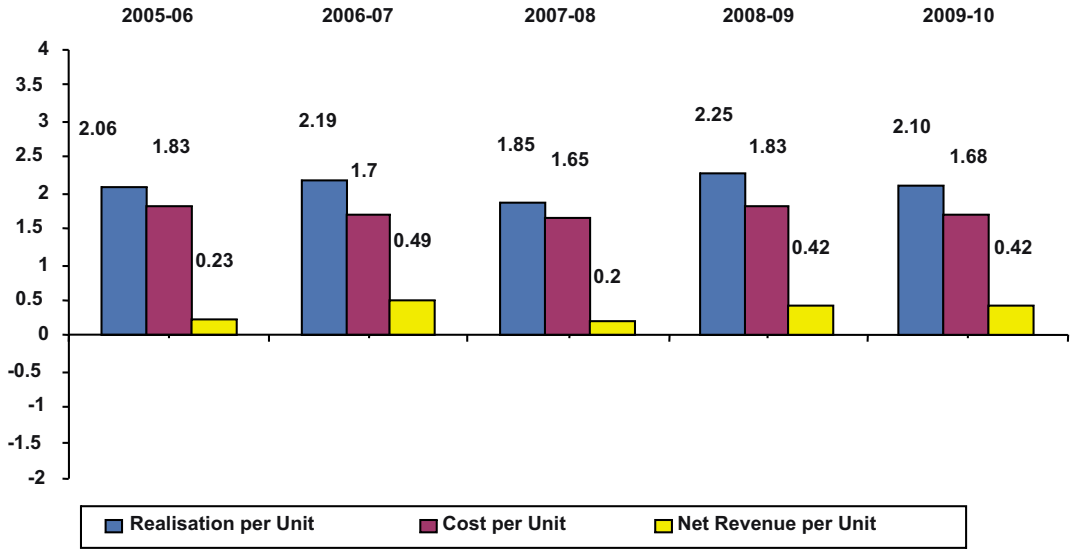


IPGCL was not able to recover its cost of operations during 2005-08

Had the revenue earned by IPGCL covered the cost during 2005-06 to 2007-08, an additional amount of ₹ 125.79 crore could have been available for capacity addition/life extension programmes. The main reasons for high cost of generation/ supply had been poor capacity utilization which eroded the system performance, high level of auxiliary consumption etc. The other reasons were over staffing in administration and higher interest cost.

On the other hand, the PPCL was able to recover its cost of operations. During

the last five years ending 2009-10, the net revenue has been positive as given in the graph below:



5.2.10 Audit Findings

Audit explained the audit objectives to the management of IPGCL / PPCL during an 'Entry Conference' held on 23 February 2010. Subsequently, audit findings were reported to the IPGCL and PPCL in May 2010 and State Government in January 2011 and discussed in an 'Exit Conference' held on 20 January 2011 which was attended by the management of both the companies and the representative of Department of Power, GNCTD. The IPGCL / PPCL replied to audit findings in August 2010. The views expressed by them have been considered while finalising this review. The audit findings are discussed below.

5.2.11 Operational Performance

The operational performance of the generation stations of IPGCL and PPCL for the five years ending 2009-10 is given in ***Appendix 5.11 and 5.12***. The performance was evaluated on various operational parameters. The operations of power generating companies are dependent on input efficiency consisting of material and manpower and output efficiency, which is connected with Plant Load Factor, plant availability, capacity utilization, outages and auxiliary consumption. These aspects have been discussed in the succeeding paragraphs.

5.2.12 Planning

National Electricity Policy (NEP) aims to ensure availability of over 1,000 units of per capita electricity by 2012, for which it was estimated that need based capacity addition of more than 1,00,000 MW would be required during 2002-2012 in the country. The power availability scenario in the state indicating own generation, purchase of power, peak demand and net deficit was as under:

Year	Generation (MW)	Peak Demand	Average Demand	Percentage of actual generation to Average Demand	Percentage of actual generation to Peak Demand
2005-06	639.99	3632	2418	26.47	17.62
2006-07	599.78	3737	2509	23.91	16.05
2007-08	636.12	4045	2554	24.91	15.73
2008-09	629.42	4036	2512	25.06	15.60
2009-10	575.86	4464	2666	21.60	12.90

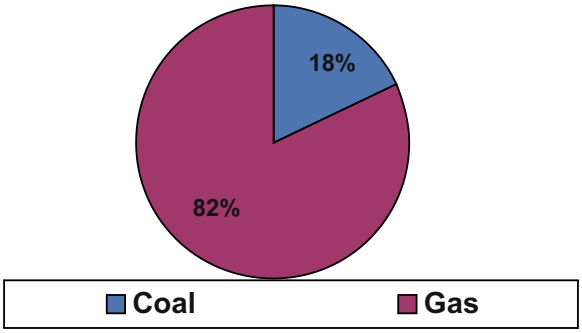
During the period from 2005-06 to 2009-10, the actual generation was substantially less than the peak as well as average demand as shown above which was only 21.60 to 26.47 *per cent* of the average demand and 12.90 to17.62 *per cent* of the peak demand. Moreover, the total supply even after import was not sufficient to meet the peak demand, as shown below:

Year	Peak Demand (MW)	Peak Demand met (MW)	Sources for meeting peak demand (MW)		Peak Deficit (Percentage of Peak Demand)
			Own	Import	
2005-06	3632	3600	639.98	2960.02	0.88
2006-07	3737	3736	599.78	3136.22	0.03
2007-08	4045	4030	636.11	3393.89	0.37
2008-09	4036	4034	629.42	3404.58	0.05
2009-10	4464	4408	575.86	3832.14	1.25

From the above, it may be seen that there remained a shortfall ranging from 2992.02 MW to 3888.14 MW with reference to own generation. This indicated over dependence on import rather than increase in own generation.

Capacity Additions

The State had total installed capacity of 994.5 MW at the beginning of 2005-06 which reduced to 735 MW at the end of 2009-10 with closure of one power station. The breakup of generating capacities, as on 31 March 2010, under coal and gas is shown in the pie chart below:



To meet the energy generation requirement of 4464 MW in the State, a capacity addition of about 3729 MW was required during 2005-06 to 2009-10. The projects of 1500 MW were categorised as 'Projects under Construction' (PUC) during the review period according to NEP.

The particulars of capacity additions envisaged and actual additions during the review period are given below:

Sl. No	Description	2005-06	2006-07	2007-08	2008-09	2009-10
1.	Capacity at the beginning of the year (MW)	994.5	994.5	994.5	994.5	982.5
2.	Additions Planned for the year as per National Electricity Plan (MW)					250
3.	Additions planned by the State (MW)	-	-	-	-	250
4.	Actual Additions (MW)	-	-	-	-	-
5.	Reduction in capacity	-	-	-	12 [1]	247.5 [2]
6.	Capacity at the end of the year (MW) (1 + 4 -5)	994.5	994.5	994.5	982.5	735
7.	**Shortfall in capacity addition (MW) (4 – 2)**	**Nil**	**Nil**	**Nil**	**Nil**	**250**

The planning and execution of the capacity addition planned as per NEP is discussed below.

[1]The capacity of steam turbine units of GTPS was reduced by 12 MW in September 2008 by CEA.
[2]IP Station of IPGCL with capacity of 247.5 MW was closed in December 2009.

Delay in execution of 1500 MW Gas based Power project at Bawana

To increase capacity and improve reliability of power supply the management of PPCL initiated action in 2003 and 2004 for setting up of 1000 MW Gas based power station at Bawana and 350 MW Gas based Power station at Bhairon Road, Pragati Maidan. In September 2004, GNCTD initially decided to develop the project at Bawana through a private developer. However, in November 2006 the GNCTD finally approved the setting up of 1000 MW at Bawana under government set up and PPCL applied for getting environment clearance in January 2007 from Ministry of Environment & Forest (MOEF) which was granted in March 2007. As regards 350 MW station at Pragati Maidan, when MOEF declined environment clearance to PPCL due to high levels of pollution, it was decided to enhance the capacity of Bawana project from 1000 MW to 1500 MW and accordingly PPCL applied for environmental clearance in March 2007 which was received in April 2007. Revised feasibility report for enhanced capacity was prepared in June 2007 with estimated cost of ₹ 5195.81 crore. PPCL invited international competitive bids in July 2007 with due date of opening on 31 October 2007 which was extended twice up to 25 January 2008 on the request of parties. However, only BHEL submitted their offer on which negotiations and discussions were held between 25 January 2008 to 10 April 2008 on technical and commercial aspects and finally awarded the contract (30 April 2008) on turnkey basis for design, engineering, manufacturing, supply, installation, testing and commissioning of 1500 MW (Nominal) combined cycle gas turbine plant at Bawana at a negotiated price of ₹ 3500 crore including the supply of mandatory spares.

The following table shows the scheduled date of commissioning of six units of the Plant:

Name of the Unit (250 MW each)	Expected date of commissioning	Current status (January 2011)
1st Gas Turbine (GT)	March 2010	Synchronised on 11 October 2010
2nd GT	May 2010	Work in progress
3rd GT	July 2010	
4th GT	September 2010	
1st GT Combined Cycle (GTCC)	July 2010	
2nd GTCC	November 2010	

As on 31 October 2010, the work was under progress at Bawana and PPCL had incurred an expenditure of ₹ 2330 crore.

In this regard the following were observed:

- The erstwhile Delhi Vidyut Board purchased about 100 acres of land for establishing power plant at Bawana in 1993. The project could not take off for many years because decision was not taken on whether to sell the land to private developer for power project or to establish the project under Public Private Partnership (PPP) basis or to setup the same under Government. Our scrutiny revealed that in January 2003, PPCL initiated process for setting up 1000 MW plant but it was only in November 2006 that the GNCTD took a firm decision, thus taking about 3 years to firm up the idea. The project was awarded in April 2008, thus adding another two years to the delay.

Due to delay in execution of Bawana project, no additional capacity was available by Common Wealth Games

- Delay in the execution of the project after award of turnkey project further added to the delay with the result that the first 250 MW GT which was to be commissioned in March 2010 has been synchronised on 11 October 2010. Thus no capacity addition was available by the Common Wealth Games as envisaged. The project is behind schedule by about eight months.

The management stated that for establishing of power project, period of 7-8 years was required from the day the idea is conceived till the plant is commissioned because of magnitude of work involved and different activities & stages. The fact remains that the delay cannot be denied and in June 2010 the PPCL had informed the Chief Secretary, Delhi that due to inadequate mobilization of additional resources at site by BHEL, the delay had occurred. The delay at different stages could have been minimized with firm & timely decision, better coordination, implementation and enforcing terms on contractor.

We further observed that contract valuing ₹ 3500 crore was awarded to BHEL as turnkey contract on single quotation basis. In the absence of market rate/quotations, competitiveness of market rate and justification of award could not be vouched safe. Further, the option of re-tendering was not considered because of urgency to complete the project before the Common Wealth Games and to have reliable source of power; however, both the purposes were defeated.

The Management stated (August 2010) that PPCL had given wide publicity and extension to submit bid document, however, parties, did not come forward knowing that project is linked with ensuing CWG and may not cope with the commitment.

During the exit conference, management explained that BHEL being the expert PSU in turbine engineering is overbooked, however, efforts will be made to enforce the terms on BHEL.

5.2.13 Input Efficiency

Procedure for procurement of coal

The CEA fixes power generation targets for thermal power stations (TPS) considering capacity of plant, average plant load factor and past performance. RTPS works out coal requirement on the basis of targets so fixed and past coal consumption trends. The coal requirement so assessed was conveyed to the Standing Linkage Committee (SLC) of the Ministry of Energy (MOE), Government of India, which decides the source and quantity of coal supply to RTPS on quarterly basis. During the review period, the RTPS was in receipt of E category of Washed Coal. The average calorific value of coal stipulated by the DERC was 3808 KCal in 2006-07 to 2009-10. The coal actually received at the station was of less calorific value and in the range of 3668 KCal to 3807 KCal in the years 2006-07 to 2009-10, for which neither any claim was lodged nor was there any arrangement for joint sampling of the coal received at the power station end.

The position of coal linkage fixed, coal received, generation targets prescribed and actual generation achieved during the period from 2005-06 to 2009-10 was as below:

Sl. No	Particular	2005-06	2006-07	2007-08	2008-09	2009-10	Total
1	Coal Linkage Fixed (MT)	750000	925000	870000	765000	800000[3]	4110000
2	Quantity of Coal Received (MT)	503266	606013	705111	801201	572438	3188029
3	Generation targets (MUs)	870	800	900	828	915	4313
4	Actual Generation achieved (MUs)	574	635	898	877	645	3629
5	Shortfall in generation targets (MUs)	296	165	2	(-) 49	270	684

It would be seen from the above that the total linkage of coal during the five years fixed by the SLC was 41.10 lakh MT. Against this only 31.88 lakh MT

[3] Annual Contract Quantity as per Fuel Supply Agreement, as system of fixing coal linkage by SLC was discontinued from this year.

of coal was received, resulting in short receipt of 9.22 lakh MT (22.43 *per cent*) of coal. The short fall in generation targets ranged between 2 MUs to 296 MUs during these years. Further RTPS entered into an agreement with M/s. Northern Coal Fields Limited (NCL) on 17 July 2009 effective from 1 April 2009 in view of the fact that Ministry of Coal, GOI notified new coal distribution policy on 18 October 2007 mandating a switch over from the linkage regime of coal distribution to firm supply agreements between Coal India Limited's subsidiaries and their respective consumers. As per agreement with NCL, the annual contracted quantity of coal to be procured by RTPS was 8 lakh MT per annum. The RTPS, however, procured only 5.72 lakh MT of coal in 2009-10 leaving a deficit of 2.28 lakh MT. Being the first year of contract, the coal company intimated that frequent suspension of supply of coal from power station's end will be treated as deemed delivery quantity as per the clauses of firm supply agreement.

The management stated (August 2010) that shortfall in generation targets had all through been on account of other reasons than shortage of coal. The other reasons included shutdown of machines for modification work for 75 days, shutdown of coal handling plant for 37 days etc. The coal supply company have raised a bill of ₹ 43 lakh for deemed quantity which is being taken up with the coal company for relaxation.

Excess consumption of fuel

Excess consumption of coal and gas than DERC norms, resulted in excess consumption of fuel of ₹ 107.67 crore during 2005-10

Tariff for electricity generated by the power stations fixed by the DERC from the year 2005-06 to 2009-10 is based on heat required to produce one unit of electricity generated from coal/gas. Consumption of coal and gas are thus to be regulated according to the norms fixed by the DERC. Our scrutiny revealed that GTPS and RTPS consumed excess gas and coal respectively than norms prescribed by DERC. In respect of GTPS, consumption of gas ranged between 0.268 to 0.304 scm/kwh during these years against the norms of 0.264 scm/kwh gas. Similarly, it ranged from 0.797 to 0.979 kg/kwh against the norm of 0.826 kg/kwh in 2005-06 and 0.840 kg/kwh in other years in respect of RTPS. This has resulted in excess consumption of fuel (coal and gas) to the tune of ₹ 107.67 crore in these two power stations as depicted in ***Appendix 5.13***. The excess consumption of fuel was attributable to low plant load factor and operational deficiencies like low vacuum, high exhaust temperature, frequent jerks and steam leakage. The GTPS attributed non availability of gas and technical reasons of high frequency and evacuation as the reasons of running the machinery on partial load which resulted in excess consumption. However, it may be mentioned that DERC has clearly given in their order that the poor performance of the plant due to technical problems or gas restrictions were to be mitigated by the company and shall not be passed on to the consumers. Besides, other reasons for excess consumption of coal at RTPS noticed were low calorific value of coal, transit and moisture losses.

In case of RTPS, the management attributed (August 2010) excess consumption of heat/ coal to the fact that RTPS is an old plant and the desired consumption as per DERC norms was not achieved due to practical deterioration of the equipment efficiency. However, the DERC, while fixing the norms of consumption of fuel had taken into consideration the age and working of the power station.

Further it is important to highlight that the gas based power station of PPCL achieved the desired heat rate in all these years with the result that consumption of fuel was within norms during these years.

Apart from the above, there was a loss of ₹ 20.56 crore due to excess consumption of fuel and other items as discussed below:

RTPS in its Multi Year Tariff (MYT) Order (FY 08-11) estimated three per cent loss in quantity of purchased coal due to extra surface moisture present in the washed coal and 0.8 *per cent* loss of coal during transit. However, the DERC allowed 0.8 *per cent* only as the overall coal losses citing example of NTPC, Dadri Thermal Plant which was also running on 100 per cent washed coal being allowed only 0.8 *per cent* loss of coal by CERC.

The table below indicated coal consumed, actual coal lost, coal loss allowed as per norms of DERC and the resultant loss on this account:

Sl. No	Particular	2005-06	2006-07	2007-08	2008-09	2009-10
1	Coal consumed during the year (MT)	501322[4]	524781	715582	760265	558842
2	Actual coal lost (MT)	9966	13602	13089	13600	12246
3	Percentage of actual coal lost to coal consumed (2/1*100)	2.72	2.59	1.83	1.79	2.19
4	Coal loss as per norms (MT) (1*0.8 *per cent*)	2934	4198	5725	6082	4471
5	Excess coal lost (MT) (2-4)	7032	9404	7364	7518	7775
6	Average rate of coal	1929	1889.38	1889.38	1889.38	1889.38
7	**Total loss due to coal lost in excess (Rupees in crore)**	**1.36**	**1.78**	**1.39**	**1.42**	**1.47**

Coal loss in excess of DERC norms led to loss of ₹ 7.42 crore during 2005-10

It may be seen that percentage of actual coal lost to coal consumed reduced from 2.72 *per cent* in 2005-06 to 1.79 *per cent* in 2008-09, however, it again increased to 2.19 *per cent* in 2009-10. Since coal loss beyond the norms was not allowed by DERC, the power station had to incur a loss of ₹ 7.42 crore on account of coal loss of 39093 MT during the review period.

[4]Pro-rata consumption of 366720 MT from the period 19 July 2005 to 31 March 2006 was taken for calculating coal lost by the company.

RTPS management stated (August 2010) that RTPS was having 1989 model of coal mills with conventional grinding rolls while NTPC Dadri has advance design of coal mills and RTPS petition for three per cent coal loss which included surface moisture has not been considered. DERC while noting the reasons for the coal transit loss directed the power station to improve its coal stock management and monitor the transit losses regularly to reduce the same.

Light Diesel Oil (LDO) and Low Sulphur Heavy Stock (LSHS) are two types of secondary oils used in the RTPS. Secondary oils are used for initial firing of the boiler and for stabilizing flames during restart after interruption of flow. It was observed that the actual consumption of LSHS was higher than the DERC norms in the year 2005-06 and 2006-07 and consumption of LDO was higher in the year 2005-06, 2006-07 and 2009-10 resulting in excess consumption of 1851.01 MTs of LSHS and 751.11 MTs of LDO aggregating to ₹ 5.27 crore (***Appendix 5.13***). The excess consumption was attributable to the frequent tripping which in turn resulted in higher frequency of light up of units for synchronization. We observed that the generating units faced 110 numbers of trippings involving 1090.05 hours in 2005-06, 2006-07 and 2009-10, mainly on account of flame failure, high furnace pressure, boiler tube leakage etc. The causes of frequent tripping were avoidable by adhering to proper and timely repairs and maintenance of the plant.

The management stated (August 2010) that major reason of higher oil consumption had been forced outages and at around 70 per cent of load the flame is unstable and needs oil support. However, the excessive outages could have been reduced by adhering to preventive maintenance schedule.

A thermal power station uses steam to drive the turbine for generation of electricity and De-mineralized (DM) water is used to produce steam. The designed capacity of boilers of the plants of RTPS and GTPS required 275 tonne and 375 tonne flow of DM water respectively that would be cooled and recycled again and again. The normal loss of water in the process was two per cent in RTPS and four per cent in GTPS. During the five years ending 31 March 2010, the consumption of DM water in excess of norm was worked out to 11.07 lakh MT valued at ₹ 7.87 crore.

In respect of GTPS, the management accepted (August 2010) that there was excess consumption of De-mineralised water due to frequent leakage in Heat Recovery Steam Generators (HRSGS) and consumption would be minimized after replacement of leak tubes in all the six HRSGS.

RTPS management stated (August 2010) that although the power station have taken limit of two *per cent* as benchmark from NTPC norms but their boilers are designed for five *per cent* make up.

Loss of generation due to inadequate supply of gas

IPGCL and PPCL have entered into a contract with Gas Authority of India (GAIL) to receive and purchase natural gas as the fuel for running of gas based power stations. Our scrutiny revealed that due to short supply of gas by GAIL, both the power stations suffered generation losses of 954.51 MUs[5] valuing ₹ 114.50 crore as discussed below:

Due to inadequate supply of gas, GTPS and PPCL suffered generation loss of 262.57 MUs and 691.94 MUs respectively during 2005-10

The GTPS with six gas turbines was commissioned in 1986. The daily requirement of gas for operating all the six turbines was assessed at 1.44 million metric standard cubic meters (mmscm) per day. In January 2004, IPGCL was allocated 0.6 mmscm of Re-liquified Natural Gas (R-LNG) and accordingly entered into contract with GAIL. In April 2005, gas supply to GTPS was reduced from 0.84 mmscm allotted in March 2000 to 0.74 mmscm, with the result availability of gas to the company was 1.34 mmscm (0.74 plus 0.60 mmscm) against the assessed requirement of 1.44 mmscm. Even, this quantity of gas supply was further cut on a day to day basis in the range of 15 to 20 *per cent*. Thus, due to inadequate supply of gas, GTPS suffered loss of generation of 262.57 MUs valued at ₹ 42.37 crore during review period.

PPCL entered (April 2001) into a contract with GAIL to purchase natural gas as the fuel for running of Pragati Power Station. The period of contract was from 27 December 2001 to 31 March 2011. As per Article-5 of the contract, the seller agreed to sell the gas as per the requirement of buyer subject to a maximum of 1.75 mmscm per day. The quantity of 1.75 mmscm was reduced to 1.50 mmscm in April 2005. To meet the deficiency accordingly, the PPCL further entered into gas supply agreement with GAIL for procurement of natural gas of 0.28 mmscm and R-LNG at 0.20 mmscm in September 2008 and May 2009 respectively. However, gas supply was further subject to cuts of 15 to 20 per cent on daily basis. This resulted in loss of generation of 691.94 MUs valued at ₹ 72.13 crore during the review period.

The management of GTPS stated (August 2010) that constant efforts were made to get adequate supply of gas and in this regard agreement was also made to purchase gas on spot basis for short duration in 2006, 2007 and 2009. It was further stated that GAIL has made the agreement to supply gas according to their own terms.

The management of PPCL in its reply (August 2010) stated that they have taken up the matter with GAIL/Ministry of Petroleum & Natural Gas for maintaining the supply of allocated gas, to which GAIL informed that availability of gas at Hazira for sale by GAIL to consumers was less resulting in restrictions of gas supply.

[5] GTPS and PPCL suffered a generation loss of 262.571 MUs and 691.938 MUs respectively.

Inequitable agreement clause with GAIL

As per the terms of agreement with GAIL for gas supply, both PPCL and IPGCL had to pay for actual quantity of gas supplied subject to a minimum agreed quantity {known as minimum guarantee off-take (MGO)}. However, we observed that there was no reciprocal clause for payment of any penalty by GAIL in the event of its failure to supply gas as committed in the agreement. Scrutiny of records revealed that an amount of ₹ 25.08 crore remained outstanding for the years 2004-05 and 2005-06, claimed by GAIL on account of MGO in respect of GTPS of IPGCL. In respect of PPCL, GAIL claimed an amount of ₹ 3.43 crore towards MGO charges applicable from January 2003 onwards (after commissioning of the plant) and an amount of ` 9.24 crore as regards the period prior to January 2003. As such, PPCL became liable to pay an amount of ₹ 12.67 crore to GAIL towards MGO charges. However, no penalty for short supply of gas could be levied on GAIL. Hence, the Companies had failed to safeguard their interest by not insisting on incorporating a penalty clause for the same and would continue to incur such liability until such inequitable clauses in the agreement are not changed.

The management of GTPS stated (August 2010) that there could have been possibility of incorporating a penalty clause if supplier would have been a private party. However, audit view would be considered in future contracts with GAIL. The management of PPCL replied (August 2010) that during the first year of the commissioning of plant, the monthly requirement of gas was required to be sent in advance by a month. The turbine faced certain problems during pre-commissioning/ post-commissioning which were of a sudden nature and these problems could not be predicted in advance.

However, we are of the opinion that as IPGCL and PPCL are also PSUs like GAIL and as the MGO clause was included in GAIL's interest, a corresponding clause in the former's interest could also have been included.

5.2.14 Manpower Management

Consequent upon the unbundling of erstwhile Delhi Vidyut Board (30 June 2002) and with IPGCL coming into existence (July 2002), the State Government decided (October 2002) that the staff strength available in the power stations on the date would be taken as their respective sanctioned strengths. IPGCL requested (May 2004) CEA to assess its staff requirement. The CEA in its report (July 2005) recommended 2 persons per mega watt of the installed capacity for IPGCL. The position of actual manpower, sanctioned strength & manpower

as per CEA recommendation is given below:

Sl. No.	Particulars	2005-06	2006-07	2007-08	2008-09	2009-10
1	Sanctioned strength	2516	2529	2421	2410	2083
2	Manpower as per the CEA recommendations	1330	1330	1330	1330	1330
3	Actual manpower	2124	2006	1838	1800	1323
4	Expenditure on employees remuneration & benefits (₹ in crore)	47.81	47.57	63.84	83.40	75.45
5	Extra expenditure with reference to CEA norms (₹ in crore) [(4/3) x (3–2)]	17.87	16.03	17.64	21.78	-

Above table shows that actual manpower was more than the norms of CEA during the period from 2005-06 to 2008-09. This resulted in extra expenditure of ₹ 73.32 crore. It was observed that despite having excessive manpower, the generating stations were regularly employing temporary/contract staff for regular jobs such as housekeeping, cleaning of coal handling plant, cleaning of condenser etc. Besides, overtime was regularly being paid to the regular staff. The overtime wages paid by generating stations of IPGCL during the period of review worked out to ₹ 17.89 crore. No action was taken to rationalise its staff strength or explore ways to utilise them optimally. Further with the closure of IP Station in December 2009, no concrete decision has been taken by the management to relocate the staff. In PPCL, the number of employees ranged from 63 to 123 during the review period and were less than the norms of CEA.

The management stated (August 2010) that the company has inherited the manpower from DVB. The plants being operated by IPGCL are of old design requiring higher manpower and CEA in the report allowed 3 to 4 years to achieve the norms of two persons per mega watts. The management also justified the payment of overtime because the employees are required to work beyond office hours. Further, the management stated that Company is in the process of redeploying the excess manpower including surplus due to closure of I.P Station in December 2009 in the new plant of 1500 MW being executed at Bawana.

However, it may be mentioned here that when the Company was having excess manpower, the payment of overtime could have been avoided with better deployment of available manpower in shifts.

5.2.15 Output Efficiency

The operational performance on various parameters to evaluate the performance of power stations of IPGCL and PPCL in terms of output efficiency are discussed below:

Shortfall in generation

The targets for generation of power for each year are fixed by the Central Electricity Authority (CEA). It was observed that the State was able to generate a total of 26990.95 MUs of power during 2005-06 to 2009-2010 against a target of 28509 MUs. This resulted in a net shortfall of 1518.05 MUs[6] as shown in the following table:

(In Million Units)

Year	Target	Actual	Shortfall
2005-06	5920	5606.29	313.71
2006-07	5700	5254.07	445.93
2007-08	5750	5572.36	177.64
2008-09	5778	5513.72	264.28
2009-10	5361	5044.51	316.49
Total	**28509**	**26990.95**	**1518.05**

Detailed analysis of shortfall in power stations selected for review revealed that RTPS failed to achieve the targets fixed by CEA during 2005-06, 2006-07 and 2009-10 and deficit was 33.98, 20.64 and 29.49 *per cent* in these years respectively. GTPS failed to achieve the targets in all the years under review except 2005-06 and deficit ranged from 5.85 *per cent* to 19.98 *per cent*. Failure to achieve the generation targets resulted in shortfall of 755.25 MUs and 683.79 MUs valuing ₹ 128.48 crore and ₹ 124.11 crore at GTPS and RTPS of IPGCL respectively during these years.

Further we observed that PPCL failed to achieve the targets during the year 2005-06 to 2007-08, which resulted in loss of 329.53 MUs valuing ₹ 33.89 crore. The deficit in generation increased from 4.20 *per cent* in 2005-06 to 7.97 *per cent* in 2006-07, then, declined to 1.39 *per cent* in 2007-08 and thereafter actual generation exceeded the target during 2008-09 and 2009-10.

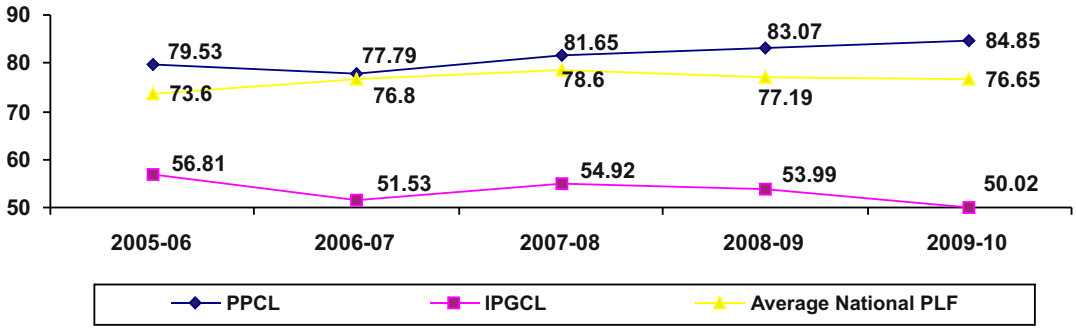
Low Plant Load Factor (PLF)

PLF of IPGCL remained less than average national PLF during 2005-10

Plant load factor (PLF) refers to the ratio between the actual generation and the maximum possible generation at installed capacity. The Line-graph

[6]Net shortfall of all the three power stations of IPGCL (including surplus of 196.25 MUs of IP station which was not covered for detailed audit-scrutiny being closed down in December 2009) and one station of PPCL.

Depicting the PLF achieved by IPGCL (RTPS and GTPS) and PPCL is given below:



The details of average realization vis-à-vis average cost per unit, PLF achieved, PLF at which average cost would be recovered and the difference of PLF in *per cent* in respect of IPGCL are given in the following table:

Sl. No.	Description	2005-06	2006-07	2007-08	2008-09	2009-10
1	Average Realisation (Paise per Unit)	224	267	277	338	362
2	Average Cost (Paise per Unit)	244	279	292	326	338
3	Actual PLF (*Per cent*)	56.81	51.53	54.92	53.99	50.02
4	Average National PLF	73.6	76.8	78.6	77.19	76.65
5	PLF at which average cost stands recovered (*Per cent*) (2/1 * 3)	61.88	53.85	57.89	52.07	46.70
6	Difference (*Per cent*) (5 – 3)	5.07	2.32	2.97	(1.92)	(3.32)
7	Actual Generation (MUs)	3307.18	2999.45	3205.63	3112.39	2591.57
8	Generation as per National PLF (MUs) (7*4/3)	4284.61	4470.36	4587.81	4449.81	3971.29
9	Generation loss as compared to National PLF (MUs) (8-7)	977.43	1470.91	1382.18	1337.42	1379.72

It could be seen from the above table that the estimated shortfall in generation works out to 6547.66 MUs on the basis of the national average during 2005-06 to 2009-10.

Our scrutiny further revealed that RTPS operated below the targets of PLF fixed by DERC in 2005-06, 2006-07 and 2009-10. Against the DERC target of 73.65, 67.60 and 70 *per cent* PLF, RTPS could achieve the PLF of only

48.57, 53.69 and 54.55 *per cent* only in respective years. Similarly, GTPS operated below the target PLF during the review period except in 2005-06. In this case, against the target PLF of 70 per cent fixed by DERC for all the years under review, the actual PLF of GTPS ranged from 51.69 to 63.32 *per cent* during 2006-10 as detailed in ***Appendix 5.11***.

It was observed from the records that the major reasons for the low PLF by RTPS and GTPS, were low plant availability, poor capacity utilization due to running on partial load, major shut downs and delays in repairs and maintenance.

The management stated (August 2010) that shortfall in generation and low PLF were due to various technical reasons viz. boiler tube leakage, high frequency, evacuation constraints, frequent tripping resulting in forced breakdown and non availability of sufficient gas. It was also stated that the reasons were beyond their control.

However, the norms of operation and targets fixed for PLF were after taking into consideration the current state of each plant. The DERC clearly spelt out in their order that poor performance due to technical problems and gas supply constraints were to be managed by the Company and could not be passed on to the consumer expect in *force majeure* events.

Further it is important to highlight that the power station of PPCL achieved the desired PLF in all these years.

Low plant availability

Plant availability means the ratio of actual hours operated to maximum possible hours available during a certain period. As against the CERC norm of 80 per cent plant availability during 2004-2009 and 85 *per cent* during 2010-2014, the average plant availability of power stations in the State sector reduced from 85.19 *per cent* in 2005-06 to 74.03 *per cent* in 2009-10.

The details of total hours available, total hours operated, planned outages,

forced outages and overall plant availability in respect of the State as a whole are shown below:

Sl. No.	Particulars	2005-06	2006-07	2007-08[7]	2008-09	2009-10
1.	Total hours available	157680	157680	158112	157680	157680
2.	Operated hours	134329	119304	116343	121400	116726
3.	Planned outages (in hours)	10193	10252	6312	3973	9805
4.	Forced outages (in hours)	9977	19186	24720	18437	17172
5.	System backdown by others[8]	3181	8938	10737	13870	13977
6.	Plant availability (*per cent*)	85.19	75.66	73.58	76.99	74.03
7.	Prescribed availability(CERC)	80	80	80	80	85
8.	Plant availability at National Level	81.78	83.72	84.76	85.05	N A

Audit scrutiny revealed that plant availability at state level has reduced in all these years and company failed to achieve the desired plant availability fixed by CERC in all these years, whereas the plant availability at national level has increased in all these years. The reasons for low availability were excessive forced outages and poor maintenance. Low availability of plant was one of the reasons for non achievement of generation targets.

The management stated (August 2010) that machines were not available due to forced outages on account of technical reasons which were beyond their control. However, excessive outages could have been reduced by taking timely preventive measures, adhering to prescribed maintenance schedule, ensuring timely availability of spares & their replacement which was lacking during the review period as discussed in subsequent paragraphs.

In respect of PPCL, the plant availability factor was higher than the desired level in all these years (***Appendix 5.12***).

Low Capacity Utilization

Capacity utilization means the ratio of actual generation to possible generation during actual hours of operation. The capacity utilisation of RTPS and GTPS

[7]Because of leap year, there were 432 hours extra available in that year.
[8]Hours for which machines were not run due to non availability of gas and as per State Load Dispatch Centre (SLDC).

vis-à-vis capacity utilisation as per DERC and at the national level is depicted in the table below:

(in *per cent*)

Sl. No.	Particulars	2005-06	2006-07	2007-08	2008-09	2009-10
1	RTPS (as per DERC norms)	92.06	84.50	87.50	87.50	82.35
2	RTPS (Actual)	64.30	88.10	87.70	79.99	74.01
3	GTPS (as per DERC norms)	87.50	87.50	87.50	87.50	82.35
4	GTPS (Actual)	79.71	76.73	80.47	75.33	75.92
5	National level Capacity Utilisation	90.00	91.73	92.73	90.76	90.12

From the above, it may be seen that capacities remained unutilized in RTPS and operated below the capacity utilization fixed by DERC during the year 2005-06, 2008-09 and 2009-10. The shortfall ranged between 7.51 to 27.76 *per cent* during these years. In respect of GTPS, the plant operated below capacity utilization fixed by DERC in all these years and capacity unutilized ranged between 6.43 to 12.17 *per cent* during these years. It may also be seen that at both power stations, the capacity utilization remained below the national level capacity utilization in all these years. Further, detailed analysis revealed that the percentage of actual generation to possible generation with respect to hours (turbines) actually operated during 2005-06 to 2009-10 ranged between 64.30 to 88.10 *per cent* and 75.33 to 80.47 *per cent* at RTPS and GTPS respectively. This also resulted in shortfall in generation of 976.47 MUs valuing ₹ 179.68 crore and 2013.10 MUs valuing ₹ 330.35 crore at RTPS and GTPS respectively. In respect of PPCL, there was shortfall of generation to the tune of 1578.21 MUs to possible generation valuing ₹ 156.48 crore (***Appendix 5.12***) with regard to hours plant operated. Scrutiny revealed that shortfall with reference to possible generation occurred due to operation of plant under partial load[9] and constraints on transmission capacity.

The management accepted (August 2010) that shortfall in generation was due to running the plants on partial load and added that this may be due to various technical reasons viz. boiler tube leakage, non availability of spares, non availability of gas, evacuation constraints, high frequency etc. which were beyond their control. However, these problems could have been minimized with proper & timely maintenance of machines, arranging sufficient gas and by strengthening the transmission network which was not done during the review period resulting in loss of potential generation.

[9]Running of machine below the rated capacity.

Loss due to evacuation constraints

For the purpose of proper and optimum evacuation of generation from power plants, there is a need to have proper and strong network (required capacity transformer etc) at plants to evacuate power, otherwise the system would back down.

Our scrutiny revealed that GTPS and RTPS lost potential generation of 50.08 MUs and 3.83 MUs valued at ₹ 7.91 crore and ₹ 0.72 crore respectively during the review period due to evacuation constraints at both the plants implying that generating units were run on low load i.e., capacity was not optimally utilized. Further it was observed that as per DERC orders, two transformers of higher capacity (160 KVs) were required to be installed by 2007 at GTPS, however, only one transformer could be installed. Thus there was a need to upgrade the transmission network at plants to avoid such losses.

The management of GTPS stated (August 2010) that augmentation of second transformer was deferred by Delhi Transco Limited and after a lot of pursuance the work started in February 2010 and completed in September 2010. Further, one more 66 KV outgoing feeder has been connected to GTPS and would start taking load soon. So with above energisation, there would not be back down at GTPS.

The management of RTPS stated (August 2010) that loss of generation due to evacuation constraint was 41.42 MUs instead of 3.83 MUs. As a matter of fact 41.42 MUs was deemed back down generation due to transmission constraints which also included the period of grid failures/disturbances/trips external to RTPS, while we pointed out generation loss due to non evacuation of power from the yard of the power station.

5.2.16 Outages

Outages refer to the period for which the plant remained closed for attending to planned/forced maintenance. The position of the total available hours, hours operated, planned and forced outages in respect of RTPS and GTPS of IPGCL is given in the ***Appendix 5.14***. The observations in this regard are discussed below:

Rajghat Thermal Power Station

During the review period, the planned outages increased from 3301 hours in 2005-06 to 4698 hours in 2006-07 and thereafter decreased to 355 hours in 2008-09 and again increased to 2176 hours in 2009-10. On the other hand, the forced outages increased from 986 hours in 2005-06 to 2431 hours in 2009-10 implying deficient preventive maintenance. Further, detailed analysis revealed

that the forced outages in Unit 1 of RTPS were in excess of 10 *per cent* of the available hours as prescribed by CEA by 971 hours during the years 2006-07 and 2007-08 resulting in loss of generation of 65.54 MUs valued at ₹ 12.57 crore and in Unit 2 during 2009-10 by 751 hours resulting in loss of generation of 50.69 MUs valued at ₹ 9.72 crore.

Higher forced outages than the prescribed norms were mainly due to boiler tube leakage for 1818.35 hours (lack of proper maintenance led to corrosion of tubes inlets, outlets and water wall tubes), tripping due to various reasons for 1555.45 hours, leakage of cooling line of CW pump for 549.15 hours, condenser tube leakage for 440.05 hours, heavy jerks in the system for 1543.40 hours, drum level very low/high for 394.50 hours and various tube leakages for 225 hours. It was also observed that the forced outages occurred repeatedly. The repetitions of the outages over the years indicate that these were not attended to properly during the planned maintenance.

Further, it was observed that during 2006-07, unit 2 tripped on 22 December 2006 due to failure of turbine blade. The repair works were undertaken and the unit was synchronized on 19 April 2007 after a gap of about four months. Scrutiny of records revealed that this period was taken into the records as planned outages. The loss of generation due to forced outages later on converted into planned outages was 191.23 MUs valued at ₹ 36.68 crore.

The management in its reply (August 2010) while accepting the audit contention attributed the forced outages to the genuine problem of high vibrations and frequent axial shift which necessitated the turbine overhauling/repairs from time to time.

Gas Turbine Power Station

The total number of hours lost due to planned outages decreased from 2964 hours in 2005-06 to 986 hours in 2009-10, i.e., from 3.76 *per cent* to 1.25 *per cent* of the total available hours in the respective years. The forced outages in the power station, however, increased from 3213 hours in 2005-06 to 16316 hours in 2007-08 and decreased to 6965 hours in 2009-10, i.e., increased from 4.08 per cent to 20.64 *per cent* and improved to 8.83 *per cent* in 2009-10 of the total available hours in the respective years. This shows that repair and maintenance was not attended to in a planned and timely manner with the result that forced outages increased during these years. Compliance of the CEA norms of 10 *per cent* in various Units of the Station would have entailed availability of plant for an additional 25670 operational hours with consequent

generation of 855.65 MUs valuing ₹ 140.79 crore during the period covered under review:

Our scrutiny revealed that the main reasons for forced outages was tripping due to low vacuum (376 hours), high exhaust temperature (541 hours), loss of flame (874 hours), leakages (2712 hours), frequent heavy jerks and vibrations (1130 hours), etc. which could have been avoided by taking timely preventive measures, adhering to the prescribed maintenance schedules and timely repair and replacement of equipments which are discussed in succeeding paragraphs.

The Management stated that outages occurred due to technical reasons which were beyond their control.

Auxiliary consumption of power

Auxiliary consumption in RTPS and GTPS was more than DERC norms resulting in excess consumption of 88.30 MUs

Energy consumed by power stations themselves for running their equipment and common services is called Auxiliary Consumption. DERC fixed the norms as 11.28 *per cent* for RTPS and 3 *per cent* for GTPS. The actual auxiliary consumption of the power stations was in excess of the norms resulting in excess consumption of 88.30 MUs valuing ₹ 16.31 crore. The auxiliary consumption in excess of norms was attributable to excessive forced shutdowns as auxiliaries continue to run and consume power even though the unit is shutdown.

The management of GTPS stated (August 2010) that there was high auxiliaries consumption on account of various technical reasons viz. tripping, high frequency, grid disturbances, low load during summer season and non availability of sufficient gas due to which plants run on partial load and these reasons were beyond their control.

However, the DERC put onus on the company to take remedial action to regulate excess wastage, but the Company did not take sufficient steps to reduce the auxiliary consumption. Further during 2009-10, there was no generation loss due to non availability of gas; however, the auxiliary consumption was maximum during this year. On the other hand, the management of RTPS has accepted the audit observation.

5.2.17 Energy Audit

In compliance of Energy Conservation Act 2001, energy audit was taken up (2006-07) at RTPS and GTPS at a cost of ₹ 3 lakh and ₹ 7 lakh respectively to assess present performance and energy cost reduction study. Some of the major recommendations in the energy audit reports were installing new impeller/pump of reduced size in Condensate extraction pump and Boiler feed pumps, installing Automatic Temperature Controller in cooling tower and

installation of new energy efficient Forced Draft (FD) fans along with Variable Frequency Drive (VFD), installation of VFD for Induced Draft (ID) fans and reduction of un-burnts in bottom ash at GTPS and RTPS respectively. For implementation of the recommendations at RTPS and GTPS an investment of about ₹ 8.74 crore and ₹ 12 lakh were estimated. From this, annual financial returns of about ₹ 6.10 crore and ₹ 41.87 lakh were expected to be earned within a payback period of 1.43 years and 3.5 months respectively. However, the company was yet to chalk out any plan to implement the recommendation even after a lapse of three years.

The management of GTPS stated (August 2010) that some of the recommendations were in the process of implementation and for the remaining technical feasibility was being studied. However, considering the recurring benefit of saving of energy loss, these recommendations should have been implemented urgently.

The management of RTPS in its reply (August 2010) stated that the majority of measures identified in energy audit require major equipment replacement changing the basic engineering and the required investment may be more than ₹ 8.74 crore. It further stated that some of the energy saving actions have been implemented at the time of recent overhauling and many schemes are planned during 2010-2011.

5.2.18 Repairs & Maintenance

To ensure long term sustainable levels of performance, it is important to adhere to periodic maintenance schedules. The efficiency and availability of equipment is dependent on the strict adherence to annual maintenance and equipment overhauling schedules. Non adherence to schedule carries a risk of the equipment consuming more coal, fuel oil and increases risk of forced outages which necessitate undertaking of R&M works. These factors lead to increase in the cost of power generation due to reduced availability of equipment which would adversely affect the total power generated.

A few significant instances, in GTPS/RTPS and Pragati Power Station of IPGCL and PPCL respectively covered under the review where proper maintenance schedules were not adhered, extra time was taken in job works awarded for overhauling and routine repair works and non availability of spares etc which resulted in loss of generation to the tune of 734.10 MUs valuing ₹ 106.91 crore are detailed in ***Appendix 5.15***.

During exit conference, the management intimated that generally maintenance schedules are followed in gas-based stations. Moreover, BHEL is normally overbooked and this fact has to be taken into account while going for maintenance/overhauling. Regarding re-commissioning of machines due to

forced outages, plant management coordinate with BHEL to rectify defects and to arrange spares at the earliest.

Post Repair and Maintenance Performance Evaluation

Two units of 67.5 MW each were commissioned in the year 1989-90 by M/s BHEL at RTPS. Both the units are having generic vibration and high axial shift problem. Generally full load of units could be achieved for about six months after every overhaul and thereafter the vibrations started increasing again forcing reduction of the load. All through the period since commissioning, the turbine overhauling was done by BHEL but the problem could not be fixed so far.

The matter was brought to the knowledge of BHEL's team that normal span for turbine overhauling should be 2-3 years but due to recurring vibration problem, emergency repairs were carried out and the plant was constrained to operate the machines on lower load indicating that the job carried out by BHEL was not upto the mark. BHEL suggested to go in for initial fresh overhauling of each unit and examination of the condenser as well as alignment of the turbine. Therefore a job order for overhauling of unit Nos 1 and 2 of RTPS was placed (16 March 2005) on M/s BHEL at a total negotiated cost of ₹ 2.29 crore. However, the same was amended in October 2005 for carrying out the further necessary works by increasing the scope at the negotiated computed cost of ₹ 5.96 crore for both the units. No study was undertaken by RTPS in 2005 to locate and address the frequent vibration problem, thus resulting in amendment of the job order dated 16 March 2005 from ₹ 2.29 crore to ₹ 5.96 crore in October 2005 at the instance of BHEL.

The next overhauling of units 1 and 2 were scheduled in November 2008 and April 2009 respectively. The overhauling of the Unit 2 was taken up first from 17 September 2009 for stipulated 45 days but the job was completed on 28 November 2009 after a delay of 28 days. The machine was synchronized on 30 November 2009. Even after overhauling, the unit 2 had to be shut down due to boiler tube leakage from 14 December 2009 to 22 December 2009 and again shut down from 2 January 2010 to 28 February 2010 due to very high vibration problem resulting in generation loss of 104.75 MUs valued at ₹ 20.11 crore.

Thus, it would be seen that while awarding the work of overhauling in 2005 to BHEL, the poor overhauling job done by BHEL in the past was not kept in mind wherein the vibration problems started after five months and the machines were forcibly kept on lower load. Even a warranty clause to enable the Power Station to be compensated for any loss of generation during warranty period was not included in the job order specifically in view of the

fact that improved working in November 2003 lasted for not more than five months.

Further, the Kukde Committee in its report had also suggested (September 2000) that final report of overhaul with recommendations for next overhaul must be prepared within two months of completion of overhauling. It was, however, observed that the reports were prepared without recommendations for next overhaul and in the absence of recommendations the Power Station could not identify major deficient areas for improvement which resulted in frequent forced outages.

Also the policy of getting the overhauling work done by M/s BHEL (OEM) on single tender basis needs to be reviewed in view of the fact that jobs done by BHEL since installation failed in addressing the vibration problems and measures suggested by them to overcome the problem have not yielded the desired results.

The management stated in reply (August 2010) that both the units at RTPS are having generic problem of vibration since commissioning and inspite of repeated reference to OEM, design problem could not be addressed. It also stated that annual overhauling exercise was clubbed with the available opportunity alongwith exercise to resolve the vibration problem of turbine. In the recent overhauling, BHEL agreed to give three months warranty period but that does not cover generation loss. The management also intimated that policy of getting the overhauling work done by BHEL on single tender basis was for boiler overhauling only.

5.2.19 Financial Management

Efficient fund management serves as a tool for optimum utilisation of available resources and borrowings at favorable terms at appropriate time. The main sources of funds were realisations from sale of power, subsidy from State/Central Governments, loans from State Government/Banks/Financial Institutions etc. These funds were mainly utilised to meet payment of fuel bills, debt servicing, employee and administrative costs, and system improvement works of capital and revenue nature.

The details of cash inflow and outflow of IPGCL and PPCL for the years

2005-06to2009-10aregivenbelow:

IPGCL **(₹inlakh)**

Sl. No.	Particulars	2005-06	2006-07	2007-08	2008-09	2009-10
CashInflow						
1	NetProfit/(Loss)	-4926.99	-2973.43	-1595.27	5912.48	10467.24
2	Add: Adjustments	5448.91	8732.09	7177.11	6125.89	1202.32
3	OperatingActivities	1769.48	1381.52	8423.04	563.28	4341.8
4	InvestingActivities	51.95	239.57	2258.22	3206.54	6002.96
5	FinancingActivities	8210.00	20310.44	36208.74	0	0
	Total	**10553.35**	**27690.19**	**52471.84**	**15808.19**	**22014.32**
CashOutflow						
6	OperatingActivities	3544.52	5693.03	4064.32	7512.79	4045.25
7	InvestingActivities	2373.20	2874.05	27219.14	2573.51	11215.66
8	FinancingActivities	2565.22	5133.98	5695.68	6107.52	14054.96
	Total	**8482.94**	**13701.06**	**36979.14**	**16193.82**	**29315.87**
	NetIncrease/(decrease)in cash and cash equivalent	**2070.41**	**13989.13**	**15492.7**	**-385.63**	**-7301.55**

PPCL **(₹inlakh)**

Sl. No.	Particulars	2005-06	2006-07	2007-08	2008-09	2009-10
CashInflow						
1	NetProfit/(Loss)	7116.11	13789.9	9625.85	19713.09	14734.37
2	Add: Adjustments	8943.95	5556.78	2656.2	-1738.89	3249.83
3	OperatingActivities	0	923.86	2255.14	253.13	33374.56
4	InvestingActivities	1893.70	2518.47	4913.36	9973.09	7355.28
5	FinancingActivities	0	100	63550	46450	52247.24
	Total	**17953.76**	**22889.01**	**83000.55**	**74650.42**	**110961.28**
CashOutflow						
6	OperatingActivities	7228.18	4212.41	1503.4	1064.17	6209.76
7	InvestingActivities	71.51	1820.82	374.52	51778.84	178977.96
8	FinancingActivities	13924.93	19289.89	11044.11	12462.39	5344.96
	Total	**21224.62**	**25323.12**	**12922.03**	**65305.4**	**190532.68**
	NetIncrease/(decrease)in cash and cash equivalent	**-3270.86**	**-2434.11**	**70078.52**	**9345.02**	**-79571.4**

From the above tables it may be seen that there was net decrease in cash and cash equivalent in 2008-09 and 2009-10 in respect of IPGCL while in PPCL decrease in cash and cash equivalent was in the years 2005-06, 2006-07 and 2009-10. Main reasons for cash deficit include heavy interest commitment on loans and locking up of funds in inventory not required immediately. It was observed that PPCL had increased dependence on borrowed funds from ₹ 596.70 crore in 2005-06 to ₹ 843.23 crore in 2009-10 whereas IPGCL reduced borrowing from

₹ 392.28 crore in 2005-06 to ₹ 362.54 crore in 2009-10. This entailed interest burden of ₹ 184.35 crore and ₹ 160.35 crore during the period 2005-06 to 2009-10 in respect of IPGCL and PPCL respectively thereby increasing the operating cost of the companies. Therefore, there is an urgent need to optimise internal resource generation by enhancing the PLF to national level. The instances noticed in audit on financial management in above areas are discussed below:

Blockage of funds of ₹ 101.03 crore in stores and spares

As per the guidelines of Central Electricity Regulatory Commission (CERC) the thermal power stations have to maintain spares equivalent to four lakh for each MW of installed capacity. The position of the stock of stores and spares of power stations of IPGCL and PPCL is given below:

- (Amount in crores)

Year	IP Station	GTPS	RTPS	Total IPGCL	Value of spares to be maintained at IPGCL as per guidelines	PPCL Station	Value of spares to be maintained at PPCL as per guidelines
2005-06[10]	---	---	---	68.89	26.58	38.94	13.20
2006-07	14.38	39.72	15.93	70.03	26.58	29.37	13.20
2007-08	14.54	40.54	17.18	72.26	26.58	39.56	13.20
2008-09	12.94	39.45	17.86	70.25	26.58	39.04	13.20
2009-10	3.30	56.31	39.85	99.46	26.58	41.35	13.20

It may be seen from above that in all the years, the value of stores and spares kept at the three power stations of IPGCL and one power station of PPCL far exceeded the limit of value of stores and spares to be kept as per guidelines of CERC. This resulted in locking up of funds to the tune of ₹ 101.03 crore due to excess stock of spares in comparison to norms fixed by CERC as on 31 March 2010.

Excess inventory of stores and spares than CERC norms resulted in locking up of ₹ 101.03 crore

The Management stated (August 2010) that there are no such guidelines issued by CERC to the power station. The level of inventory to be maintained is governed by various factors like maintenance programme, age of plant and lead time required for supply. However, the Company has introduced ERP system and is in the process of streamlining codification of material which will help in reducing inventory level. However, the CERC has issued policy decisions in general from time to time which serve as a bench mark to regulate the cost etc for all power stations, not specifically to any one power station.

Blockage of funds to the tune of ₹ 2.59 crore due to missing wagon of coal

The coal requirement of the RTPS was being met through Railway Wagons from collieries situated in Madhya Pradesh on 100 per cent advance payment basis. The wagons which were originally consigned to the company but were

[10] Break-up for IP Station, GTPS and RTPS for the year 2005-06 is not available.

diverted subsequently to other power stations resulting in non receipt at IPGCL are treated as missing. A review of the records revealed that 211 wagons containing 13715 MTs of coal dispatched from Singrauli during the period 2005-06 to 2009-10 were not received whereas 100 per cent advance payments were made to the supplier. The Power Station was yet to recover 211 wagons of coal valuing ₹ 2.59 crore resulting in blockage of funds and also consequential loss of interest.

The management stated in their reply (August 2010) that the efforts are being made to get the diverted rakes of coal back and the matter is also being taken up with railways to reconcile the pending missing coal wagons.

5.2.20 Tariff Fixation

The IPGCL/PPCL are required to file the application for approval of generation tariff for each year 120 days before the commencement of the respective year or such other date as may be directed by the Commission. The Commission accepts the application filed by generating companies with such modifications /conditions as may be deemed just and appropriate and after considering all suggestions and objections from public and other stakeholders, issue an order containing targets for controllable items and the generation tariffs for the year within 120 days of the receipt of the application.

The Commission sets performance targets for each year of the control period for the items or parameters that are deemed to be "controllable" and which include:

(a) Station Heat Rate;
(b) Availability;
(c) Auxiliary Energy Consumption;
(d) Secondary Fuel Oil Consumption;
(e) Operation and Maintenance Expenses;
(f) Plant Load Factor

Any financial loss on account of underperformance on targets for parameters specified above is not recoverable through tariffs. We noticed that the commission did not allow full recovery of various expenditures of fixed cost viz. O&M, depreciation, interest charges, interest on working capital, rebate to customers, return on equity and others. The under-recovery was to the tune of ₹ 170.46 crore[11] and ₹ 270.13 crore in respect of controllable factors for IPGCL and PPCL respectively during the review period, adding to the loss of IPGCL and reduction of profit of PPCL which was due to non achievement of targets fixed by DERC.

[11] DERC has not trued up expenditure for the year 2007-08, 2008-09 and 2009-10.

The management stated (August 2010) that recovery of fixed cost depends upon several parameters set by DERC which in turn depends on age & condition of plant, quality of fuel, breakdown of plant etc. and conclusion that expenditure was controllable & avoidable with better performance is subjective. It may be mentioned that DERC sets the targets of generation and fixes the norms of operation after considering the above issues. Further the company could have improved performance with proper & timely maintenance.

5.2.21 Environment Issues

In order to regulate pollution levels and minimize the adverse impact on the environment, the GOI has enacted various statutes. At the state level, Delhi Pollution Control Committee (DPCC) is the regulating agency to ensure compliance with the provisions of these statutes. The Ministry of Environment and Forests (MoE&F), GOI and Central Pollution Control Board (CPCB) are also vested with powers under various statutes. The IPGCL and PPCL have an environmental wing at the corporate office.

Our scrutiny relating to compliance with the provisions of various Acts in this regard revealed the following:

Operation of plant without consent

Under the provisions of environmental Acts, consent of DPCC is mandatory to run a power station in Delhi. Scrutiny of the records of RTPS revealed that it took the power station 14 years after its commissioning to apply for consent to operate on 30 June 2004, which remained pending as the power station's drain water was not being treated as no Effluent Treatment Plant (ETP) was installed. The water was not being reused for ash transportation and there was non adherence to stock emission norms. As the environmental issues remained unresolved at the power station, it continued to run without statutory consent till 8 February 2010 when the station got consent order from DPCC though the ETP had still not been constructed. Similarly, GTPS which was commissioned in 1986 also applied for consent to operate in 2004 after eighteen years in violations of above Acts. The consent order was received in 2007.

Further, as per the provisions of the Environment (Protection) Act, 1986, power station should provide online monitoring systems to record Suspended Particulate Matter (SPM) levels at RTPS and Nitrogen Oxide (NOx) at GTPS for better monitoring by DPCC. It was observed that although online monitoring system was installed in 1995 at the RTPS and GTPS, these equipments were not functioning effectively as a result of which SPM and NOx levels were being collected manually and that too at irregular intervals at these power stations in violation of the Act and in violation of conditions for consent to operate.

The management of GTPS stated (August 2010) that scheme for installing new online monitoring control system of NOx emission is under process and expected to be commissioned by December 2010.

The management of RTPS while accepting the audit contention intimated (August 2010) that environmental issues like SPM and effluent discharges have been a concern for the power station all the time. DPCC had been insisting for installation of ETP that would involve cost of around ₹ 3 crore, for which no decision has been taken on economic grounds. Further, it may be added here that GNCTD took a decision to close down the operation of RTPS during Common Wealth Games in view of high pollution emissions from the power station, confirming the fact that the pollution emissions need to be reduced at the RTPS.

Violation of Hazardous Waste (Management and Handling) Rules, 1989

Rule 5 of the Hazardous Waste (Management and Handling) Rules, 1989 inter alia, provides that every occupier handling hazardous waste has to obtain authorization from State Pollution Control Board/Committee. Further Supreme Court had directed (October 2003) State Pollution Control Boards/Committee to issue closure directions to the units operating without any authorization or in violation of conditions of operations issued under Hazardous Waste Rules, 1989. GTPS received Authorization under these Rules from DPCC on 15 July 2004 which was valid for 2 years. DPCC, while giving authorization, asked for compliance with terms and conditions and directions of Supreme Court of India through a compliance report to be sent within a week of the authorization. However, the same were not submitted by GTPS and as a result show cause notices were issued by DPCC in March 2005 and October 2005.

Thereafter GTPS submitted an application to DPCC for renewal of authorization (14 June 2006). However, DPCC asked (9 February 2007) GTPS to comply with the directions of the Rules regarding disposal of used oil/ waste oil and other terms and conditions of the authorization, failing which, the renewal of authorization was liable to be refused and action could be taken under provisions of Environment (Protection) Act, 1986. GTPS has not received till date the renewal of authorization due to the absence of compliance of terms and conditions of authorization issued in 2004. It was also noticed that there were delays of 4 to 7 months in the disposal of used oil/waste oil after considering the prescribed 90 days. On the same lines authorization under Hazardous Waste (Management and Handling), Rules 1989 was not renewed with effect from July 2006 in respect of RTPS.

The management stated (August 2010) that now SAP has been introduced and as such time period for conversion of proposal to contracts would be less

compared to the earlier manual system and all the concerned agencies have been directed to dispose off the waste within 90 days positively.

Air Pollution

Coal ash, being fine particulate matter, is a pollutant under certain conditions when it is airborne and its concentration in a given volume of atmosphere is high. Control of dust levels (SPM) in flue gas is an important responsibility of power stations. Electrostatic Precipitator (ESP) is used to reduce dust concentration in flue gases. Control of dust level is dependent on effective and efficient functioning of ESPs. MOEF prescribed (May 1993) SPM level of 150 mg/Nm^3 for thermal plants.

Our scrutiny of the records revealed that particulate stack emission levels of the RTPS were exceeding the prescribed range of 150 mg/Nm^3. It was observed that in a monitoring conducted by DPCC between September 2007 to November 2007, the emissions from the plant for particulate matter concentration from the stacks were in the range of 155 mg/Nm^3 to 226 mg/Nm^3. Further in respect of GTPS, it was observed that monthly testing was not done at all during 2005-06 while testing was done occasionally at plant level during 2006-07, 2007-08 because testing laboratories were not appointed during April 2005 to May 2008. With appointment of laboratories, plant was getting monthly reading except during July 2009 to October 2009 when contract was not renewed. Against the norms of NOx of 75 ppm, the reading ranged mostly between 77 to 282 ppm during these years.

The management of GTPS stated (August 2010) that case for online monitoring of NOx emission test date was under process and finalized in October 2009 which is expected to be commissioned in December 2010 due to which all test could not be conducted.

The management of RTPS accepted the audit contention and attributed reasons of high SPM emission to the plant efficiency going down over a period of time. As a result there was more coal consumption and hence high inlet dust concentration and the resultant high outlet emission.

Noise Pollution

Noise Pollution (Regulation and Control) Rules, 2000 aim to regulate and control noise producing and generating sources with the objective of maintaining ambient air quality. To achieve the above, noise emission from equipment should be controlled at source, adequate silencing equipment should be provided at various noise sources and a green belt should be developed around the plant area to diffuse noise dispersion. Thermal Power

Stations are required to record sound levels in all the areas stipulated in the rules referred to above.

Our scrutiny revealed the following:

- RTPS did not record noise levels in the plant area during the review period except for once in June 2008 when the noise monitoring test of DG set installed at RTPS was carried out for obtaining consent to operate from DPCC. As per test report noise level recorded was 102 db (A) which exceeded the prescribed level of 75 db (A), even then the consent was given by DPCC for running the plant.

- PPCL did not record the noise levels till June 2007. It was observed that noise levels measured at plant building exceeded the prescribed norms during December 2007 to February 2009. Further, it was observed that station was not recording noise levels in the gas turbine halls, STG floor and building without assigning any reasons from August 2009 onwards where the noise levels were exceeding the limits. However, noise level at Lime Softening Plant (LSP) and ETP were monitored and were within limits.

- In case of GTPS, noise levels were not recorded.

The management stated (August 2010) that noise level monitoring would be done more regularly as per statutory requirements in future.

Water Pollution

Waste water of a power plant is a source of water pollution. As per the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the TPSs are required to obtain the consent of DPCC which inter-alia contains the conditions and stipulations for water pollution to be complied with by the TPSs. As per these stipulations, total suspended solids (TSS), effluents from main plant, colony, domestic and ash pond should not exceed 50 mg per litre. The monitoring conducted by DPCC during September 2007 to December 2007 indicated that the effluent from STP of Rajghat was not meeting the prescribed standard as TSS was found in the range from 124 mg to 154 mg per litre. The reason for excess TSS was attributed by the management to use of more water than normal quantity for floor washing, which was required to suppress fugitive dust emission. A monitoring conducted by DPCC in January 2008 revealed that the STP effluent was again not meeting the prescribed standard and stood at 144 mg per litre.

The management accepted (August 2010) the fact and attributed the reasons of high TSS to more consumption of processed water and poor quality of input process water as Yamuna was itself reduced to a drain in Delhi.

5.2.22 Monitoring by top management

The generating company plays an important role in the state economy. For such a big 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 achievement of targets and norms. The achievements need to be reviewed to address deficiencies and also to set targets for subsequent years.

Our review of the system existing in this regard revealed that IPGCL/PPCL had developed an MIS system where data relating to operational performance, fuel consumption, efficiency, outages, etc. are compiled daily and on monthly/quarterly/annual basis. The operational/financial performances of both the companies were appraised to the Board of these companies on regular basis for information and necessary action.

With regard to socio economic parameters study, the importance of power generation is of paramount nature as all sectors of economy - residential, industrial, commercial, transport, service and agriculture require energy. The economic parameters measure how the use and production patterns of energy, as well as the quality of energy services affect progress in economic development. Social parameters measure the impact that available energy services may have on social well-being. These issues of evaluation of socio economic parameters of available energy services and study of their impact on social well being were discussed with management during the entry conference. The management replied that no study was conducted to evaluate the socio economic parameters to analyze the success rate of existing as well as new power projects under execution or planned and its positive impact on social well being.

Conclusion

- **There was growth of 25.46 per cent in demand of power since beginning of 2005-06 to the end of 2009-10, however, there was no capacity addition during these years. In fact installed capacity was reduced by 26.09 per cent with closure of one station in December 2009.**

- **Capacity addition of 1500 MW envisaged by November 2010 (1250 MW by Common Wealth Games) could not come up due to delay in execution of the mega power plant at Bawana which is behind schedule by about eight months.**

- **There was excess consumption of input to the extent of Rs.120.81 crore in the power stations of IPGCL with respect to norms fixed by the regulator.**

- **The value of stores and spares kept at the power stations of IPGCL and PPCL was exceeding the limit prescribed in CERC guidelines.**

- **Operational performance of power stations of IPGCL were affected due to low PLF, low plant availability, poor capacity utilization, excessive forced outages due to running on partial load, frequent shut downs and delays in repairs & maintenance.**

- **RTPS and GTPS of IPGCL got environmental consent to operate recently though installed and operating since long. Air, noise and water pollution levels at these power stations were neither monitored regularly due to absence of online monitoring equipments nor kept within the levels prescribed by DPCC.**

Recommendations

The companies must:

- **Strengthen their project monitoring system so as to achieve project completion targets as scheduled.**

- **Strengthen and streamline their inventory management to check minimum, maximum and re-ordering levels of inventory and to avoid blockage of funds.**

- **Enhance thermal and fuel efficiencies with improved technology to ensure generation of power at heat rate stipulated by DERC and consequential consumption of fuel within norms.**

- **Ensure adequate availability of gas so that machines may not be kept idle or run on partial load for want of fuel.**

- **Strengthen their repair and maintenance practices and procedures to control excessive outages and ensure timely re-commissioning of equipments to improve the plant availability.**

- **Ensure strict adherence to environmental laws thereby minimizing the adverse impact on environment.**

- **Ensure installation of online monitoring system at power stations of IPGCL to have a check on emission levels on regular basis so as to take timely corrective measures.**

5.3 Transaction Audit Observations

Government companies

Delhi State Industrial and Infrastructure Development Corporation Limited

5.3.1 Loss due to delay in filing of IT Return

Delay in filing Income Tax Return resulted in non-availing the benefit of carry forward of losses of ₹ 4.06 crore and avoidable payment of income tax to the extent of ₹ 1.38 crore.

Section 72 of the Income Tax Act, 1961 (Act) allows a company to carry forward its business loss and to set off the same against future business profits. Section 80 of the Act, however, stipulates that business loss for an accounting year can be carried forward for setting off against the profits of subsequent years only if the Return of Income for the loss year was filed within the time limit prescribed under section 139 (1) i.e. 30th day of September* of the respective assessment year.

The Company sustained a loss of ₹ 4.06 crore during the financial year 2007-2008. Due to delay in finalization of the accounts for the year 2007-08, the Company filed Income Tax return for the financial year 2007-08 on 12 June 2009 as against the stipulated date of 30 September 2008. Consequently, the Company could not avail the benefit of carried forward losses for setting off against the taxable profits for the next assessment year. The Company had earned net profit of ₹ 7.93 crore during the year 2008-09. Thus, due to delay in filing the income tax return and not availing benefit of carry forward of losses of ₹ 4.06 crore, the corporation suffered a loss of ₹ 1.38 crore (@ 33.99% on ₹ 4.06 crore.).

The Management stated (March/June 2010) that the delay in filing of Return of Income tax for F.Y. 2007-08 was due to the merger of another State Government Company (DSMDC Ltd) with the Company and the final order of merger was published in the official gazette on 04 March 2008. As the balance sheet for financial year 2006-07 of DSMDC and the Company had already been prepared and audited and the books of accounts for the period till the date of merger (viz. 26 June 2007) had also been prepared, the Company had to revise the annual accounts for the financial year 2006-07. The accounts of the Company for the financial year 2007-08 were thereafter finalised after considering effect of

*Substituted for 31 October with effect from 1 April 2008.

the merger. The merger involved lots of accounting aspects which resulted in delay in finalisation of annual accounts for 2007-08. It was further stated (July 2010) that the Company could not file income tax return on due date i.e., 30 September 2008 due to non finalisation of tax audit report along with income tax return , which was mandatory under Section 44AB of Income Tax Act, 1961.

The reply of the Management is not acceptable as notifications for merger were issued (4 March 2008) before completion of the Financial Year 2007-08 and the Corporation had time of more than six months, which was sufficient to prepare their merged Annual Accounts 2006-07 and 2007-08 in time and finalization of tax audit reports.

The Company should develop a mechanism and issue necessary guidelines for ensuring timely finalisation of accounts and filing of income tax return as per the existing statutory requirement to avoid such lapses in future.

Thus, due to delay in filing the income tax return for the financial year 2007-08, the Company could not avail the benefit of carry forward of losses of ₹ 4.06 crore and suffered a loss of ₹ 1.38 crore towards payment of income tax.

The matter was reported (June 2010) to the Government; their reply had not been received (November 2010).

5.3.2 Avoidable expenditure due to delay in providing clear site

Delay on the part of the Company to provide clear alternative site for work resulted in avoidable expenditure of ₹ 4.18 crore on account of cost escalation.

The Company was entrusted with the deposit work of mass housing project of Government of National Capital Territory of Delhi (GNCTD) under Jawaharlal Nehru National Urban Renewal Mission (JNNURM) scheme by Urban Development Department. The work involved construction of 5008 houses with Re-inforcement Cement Concrete (RCC) Monolithic Technologies (Composite work) at three sites in Kanjhawala, Narela and Gogha in the vicinity of North-west Delhi at an estimated cost of ₹ 60.55 crore. The Company awarded (July 2007) the work to lowest bidder M/s Sintex Industries (Contractor) at negotiated tendered amount of ₹ 100.15 crore for construction of all 5008 houses at Kanjhawala site. Work was to be completed within 400 days with stipulated date of start and date of completion being 15 August 2007 and 18 September 2008 respectively. Since, the work was to be completed in less than 18 months, clause 10 cc of General Condition of the Contract relating to escalation in the cost of material/labour after receipt of tender, was not applicable. In the meantime, the allotment of Kanjhawala land to the Company by GNCTD was challenged in Delhi High Court by a group of individuals. The High Court stayed construction of houses in Kanjhawala on 19 September 2007.

As the Company was aware of mandatory payment towards price escalation in case the work is completed beyond 14 February 2009 (viz. 18 months from date of award of work), it should have provided the alternative site for the project to the contractor latest by 10 January 2008 considering the agreed period of 400 days required for completing the work so as to avoid escalation payments. We observed that the Company provided the alternative sites to contractor at Ghogha and Bawana for construction of 3680 and 704 houses respectively during 4-12 February 2008 despite availability of clear sites at two locations since 2007 and 2002.

Due to delay in handing over the sites, the contractor, before commencing the work, represented (March 2008) for applicability of said clause 10 cc for price escalation, which was agreed to by the Company as the delay in taking up the work was not attributable to the contractor. The Company had made additional payment of ₹ 4.18 crore (upto March 2010) on account of price escalation in the cost of material and labour, which could have been avoided with prompt and prudent action by the Company in timely handing over of the alternative sites for work to the contractor. This expenditure would further increase by the time the work is completed finally. The High Court in its decision dated 7 May 2010 left the matter for final decision of the Lieutenant Governor of Delhi.

While admitting that there was delay on the part of Management in providing alternate clear sites to the contractor, the Management stated (July 2010) that they were hoping for vacation of the stay on the land as Low Cost Housing was priority work of Delhi Government at that time. Further, the decision to shift the site was needed to be taken by Management/competent authority and decision was taken to shift from Kanjhawala to Ghogha and Bawana in order to avoid legal and contractual complications and to achieve targets under JNNURM.

The reply is not acceptable as the Company had provided the alternative sites in February 2008 pending the decision of the High Court, which could have been provided earlier also viz. before 10 January 2008 so as to avoid the applicability of the escalation clause. The fact, therefore, remained that the Management failed in providing the alternate sites promptly for execution of work despite availability of clear sites causing huge loss to the Company, which was avoidable.

The matter was reported (June 2010) to the Government; and their reply had not been received.

5.3.3 Avoidable payment of surcharge

The failure of the Company to take a permanent connection and enhance the electricity load resulted in avoidable expenditure of ₹ 52.23 lakh

The Company undertook the construction of Udyog Sadan Building (Building) at Patparganj, New Delhi on behalf of the Commissioner of Industries (CI), Government of Delhi. The Company applied (April 2002) to BSES Yamuna Power Ltd (BYPL) for 11 KV HT electric connection of 1000 KW load for the building. BYPL sanctioned (October 2003) the electric load and raised a demand for payment of ₹ 15 lakh @ ₹ 1500 per KW as Consumption Deposit, which was paid by the Company in July 2004. BYPL asked (August 2004) the Company to complete certain formalities viz. Fire Clearance Certificate, Building Completion Certificate (CC), Test Certificates for equipments installed by the Company, etc. in order to get the load released for energisation. However, the Company could not complete the formalities and as such, the sanctioned load was not released (November 2010) by BYPL. Delhi Government, in the meanwhile, ordered (May 2005) to urgently shift the office of the CI to the Building. The Company, in order to run the office at the Building, requested (May 2005) BYPL for release of 150 KW electric connection on temporary basis. Accordingly, a temporary load of 150 KW was sanctioned by BYPL which became functional in June 2005. The Company itself occupied the building in January 2007 and the electric bills were paid from June 2007 onwards on alternate basis by CI and the Company. CI and the Company occupied 47 and 36 *per cent* of the area of the building respectively and the rest of the area was occupied by two other Delhi Government offices.

During the review of the electricity bills of the Building for the period June 2007 to January 2011, we noticed that the requirement of power was ranging between 204 KVA to 1332 KVA against the temporary load of 150 KW (190.5 KVA). Against the per unit applicable energy charges of ₹ 4.90 and ₹ 4.95 for periods from June 2007 to March 2008 and April 2008 to January 2011 respectively, the BYPL recovered energy charges of ₹ 6.37 and ₹ 6.44 per unit from the Company/CI during the said periods, which included 30 *per cent* surcharge towards temporary connection and difference between the connected load and the actual load.

We observed that the Management of the Company adopted lackadaisical approach in fulfilling the legal requirements for obtaining Building CC, which was mandatory for obtaining the permanent connection. We noticed that the Company applied (March 2006) to Delhi Development Authority (DDA) for Building CC, which was not issued by DDA on account of certain shortcomings/pending formalities [including the 'No objection certificate' (NOC) from Delhi Fire Service (DFS)]. On approaching DFS, Company was apprised (February 2007) of certain shortcomings in fulfillment of certain fire

safety requirements for necessary rectification. The company took abnormally long period of 26 months to attend to the shortcomings and in April 2009 requested DFS to inspect the building for issuance of NOC. The issue of NOC by DFS was, however, still pending (November 2011).

The Company as well as CI had already incurred an extra expenditure of ₹ 103.03 lakh [₹ 50.80 lakh (CI) and ₹ 52.23 lakh (Company)] towards surcharge on temporary connection and excess demand surcharge. The same was avoidable had the Company made timely efforts to get a permanent connection and increase the sanctioned load of the building. Besides, the Consumption Deposit of ₹ 15 lakh deposited by the Company with BYPL for the purpose of availing permanent connection also remained unfruitful. The Company would further continue to incur this extra expenditure till the permanent connection and the sanctioned load increased after assessment of actual requirement.

Thus, the Company and CI incurred an avoidable loss of ₹ 103.03 lakh being the surcharge on temporary connection and excess demand for the period June 2007 to January 2011, of which, ₹ 52.23 lakh pertained to the Company.

In reply, Management stated (November 2010) that the issue is being consistently pursued with appropriate authorities in DDA/DFS for obtaining the Building Completion Certificate/NOC and the Company was hopeful for obtaining the permanent connection shortly.

The reply is not acceptable as the Company took a long period of more than six years to fulfil the requirements for obtaining permanent connection after BYPL asked for the same in August 2004, which is indicative of inaction and lackadaisical approach of the Company. Further, it was incumbent upon the management to ensure timely action in coordination with the other agencies to remove the hindrances.

The matter was reported (September 2010) to Government; their reply had not been received (November 2010).

Delhi Tourism and Transportation Development Corporation Limited

5.3.4 Undue benefit to Licensee

Failure of the Company in terminating the contract despite repeated violations of the contract terms by the Licensee not only facilitated the Licensee to avail undue exploitation of Company's resources but also resulted in deviation from the basic objectives of the project.

The Company entered (8 August 2005) into a contract with M/s ITE India Pvt. Ltd. (Licensee) for operation and running of food/craft stalls in respect of 31

commercial outlets for 10 years at the 'Garden of Five Senses' (Garden) situated at Said-ul-Ajaib, New Delhi. The licensee was to comply with the operational plan approved by the Company and was not to use the commercial outlets for any purpose other than specifically permitted under the contract or as approved by the company. As per the terms of the contract, the Company was entitled to receive license fee* plus one *per cent* of turnover payable in advance quarterly installments before the 7th of each quarter after a moratorium period of six months. In case of default, the Licensee was liable to pay interest at the rate of SBI prime lending rate (PLR) plus two *per cent* for the delay period. Further, in case of any violation of the agreed terms by the Licensee, the Company at its discretion was entitled to terminate the license under clause 9.4.1, article 9 of the contract by issuing a termination notice after allowing a cure period of 90 days from the issue of preliminary notice.

The Company noticed (16 November 2006) gross violations to the agreed terms of the contract by the Licensee. Though the contract was to operate, maintain and manage the commercial outlets (viz. food stalls/craft shops), the Licensee unauthorisedly signed (May 2006) sub-lease agreements with 31 parties at monthly rental of ₹ 8 lakh. The Licensee also allocated the common area called 'Garden village' to the sub-lessees without the company's permission. The Licensee was also running the restaurants instead of food stalls by unauthorised use of the area meant for public use. Further, the sub lessees obtained the 'excise license' from Excise Department for serving liquor.

We observed that the Garden was conceptualised with the basic objective of providing the leisure space to city so as to serve the needs of general public and also to utilise the space for displaying art, organising art workshops, events, exhibitions, cultural programs, etc. within the normal timing of 9 AM to 7 PM. However, unauthorised running of dining restaurants and serving of liquor was against the objectives of setting up of the Garden. Under these circumstances, the only appropriate action warranted against the Licensee for violation of agreement terms was to terminate the contract immediately and invite fresh tenders for operation of the Garden so as to attain the basic objectives of the project.

The Company, however, did not take any concrete action for termination of the agreement with the Licensee. On the other hand, the Company regularised the activities of the Licensee by imposing (July 2007) enhanced license fee of ₹ 21.42 lakh for the period from August 2007 to August 2009. The action of the Company to regularise the unauthorised activities of the Licensee by collecting enhanced license fee indicate impropriety and passing on of undue benefits to the Licensee.

*Payable at the rate of ₹18.50 lakh per annum with 10 *per cent* appreciation after every three years.

We further observed that the Licensee had collected aggregate rent of ₹ 1.86 crore from sub-lessees during two years from July 2006 to July 2008 against which the Company got a meager return of ₹ 46.25 lakh (excluding revised license fee) during August 2005 to July 2008.

The Management replied (March 2010) that as per the agreement annual license fee chargeable was ₹ 18.50 lakh during the first three years hence the calculations of estimated rental income (₹ 1.86 crore) of the Licensee as arrived at by audit is not realistic. It was further stated (August 2010) that the Licensee had erroneously entered in to sub lease agreements and in order to recover its dues, Company had served a preliminary notice on 18 May 2010 to initiate action against the licensee for recovery of updated dues besides termination of license.

The fact, however, remains that in spite of issue of notice dated 18 May 2010, the license was not terminated but unauthorised activities of the Licensee were regularised by collecting enhanced license fee, which completely defeated the main object of providing leisure space to general public besides utlising the space for displaying art, organising art workshops, events, exhibitions, cultural programs, etc.

The Company needs to take immediate action to terminate the contract with the Licensee. The Company also needs to fix the responsibility for lackadaisical approach adopted in taking effective action against the Licensee for termination of the contract despite repeated violation of contract terms.

The matter was reported (June 2010) to the Government; their reply had not been received (December 2010).

Delhi Transco Limited

5.3.5 Undue benefit to the beneficiaries drawing bulk power

The Company extended undue financial benefit to the beneficiaries by delaying recovery of advance income tax paid on their behalf causing interest loss of ₹ 40.65 lakh

Prior to April 2007, the Company was the sole power distribution company in Delhi. The Company used to purchase the power from central power generation companies and transmit the same to the three power distribution companies (DISCOMs). Since April 2007 the activities relating to purchase and distribution of power to the consumers was transferred to the DISCOMs. The activities of the Company were therefore, confined to transmission of power and collection of wheeling charges from DISCOMs. In addition, the Company was

also supplying power directly to New Delhi Municipal Corporation (NDMC) and Military Engineering Services (MES), of these, NDMC was also distributing the power to retail consumers. As per clause 5.23 and 5.26 of Multi-Year Tariff (Transmission) order (MYT) for the financial year 2008-11, the Income Tax on the Licensed Business of the transmission licensee (i.e. the Company) should be treated as expense and should be recovered from the beneficiaries (viz. DISCOMs, NDMC and MES) without making any application before the Delhi Electricity Regulatory Commission (Commission). In case of any objections regarding the amount claimed on account of income tax, the beneficiaries were required to first make payments to the Company and approach the Commission formally afterwards for decision in the matter.

Our scrutiny of records revealed that the Company had paid advance income tax of ₹ 7.44 crore (Minimum Alternate Tax of ₹ 6.96 crore and ₹ 0.48 crore as FBT), in December 2007, March and June 2008 from its own funds on behalf of the beneficiaries. The Company, however, did not timely raise the claims against the beneficiaries for recovery of the tax paid even though the expenses on account of the tax liability on estimation basis had been allowed to the beneficiaries in the computation of Annual Revenue Requirement (ARR) and the beneficiaries had been recovering the same from the consumers by way of tariff through monthly bills. It was only after finalisation of accounts for the year 2007-08, the Company had demanded (August 2008) the advance income tax of ₹ 7.44 crore from the beneficiaries. The amount was recovered from DISCOMs [viz. NDPL (₹ 1.87 crore), BSES Rajdhani Power Limited (₹ 2.71 crore) and BSES Yamuna Power Limited (₹ 2.16 crore)] and NDMC (₹ 0.61 crore) during October-November 2008 while the amount pertaining to MES (₹ 0.09 crore) was received on 21 March 2009. Thus the Company failed to safeguard its financial interest by delaying recovery of advance income tax paid on behalf of the beneficiaries, which caused loss of interest of ₹ 40.65 lakh* up to the date of actual recovery of dues from the beneficiaries.

In reply, Management stated (October 2009) that the payment of advance income tax does not fall under the definition of income tax so the claim of income tax could be filed only after the payment of income tax which is supported by suitable documents. As such, the advance income tax could be recovered from the beneficiaries only after producing the evidence of payment duly verified from a chartered accountant. Management further stated that the financial cost of the funds utilised towards payment of the advance tax has already been allowed as a component of interest on working capital by the

* Worked out for the periods up to the actual date of recovery from the beneficiaries after allowing 15 days period for recovery in normal course.

Commission as a part of the tariff, as such, there is no loss to the Company on this account.

The reply of Management is not acceptable because as per the prevailing instructions the Company should recover amount paid on account of advance income tax directly from the beneficiaries and there was no need to provide authenticated/audited documents as the amount of advance tax recoverable from the beneficiaries was determinable based on the challans and entitled quantum of power to each beneficiary. In case of any objection regarding payment, the beneficiaries were required to go for appeal before the Commission after making payment to the Company. Further, all the beneficiaries (except MES) indirectly receive the income tax component on estimation basis through the monthly tariff recovered from customers while the estimated tax liability of the beneficiaries was being paid by the Company out of its own funds by way of advance tax. As such, the beneficiaries, which included three private DISCOMs were unduly benefited at the cost of the Company, which was not in the financial interest of the Company.

The reply of the Management regarding inclusion of the financial cost of the funds in the tariff was verified and it was found that no such costs were included in the tariff claims submitted to the Commission, hence, the contention of allowing of said financial cost by the Commission as component of interest on working capital was factually incorrect.

The matter was reported (November 2010) to the Government; their reply had not been received.

Statutory Corporation

Delhi Transport Corporation

5.3.6 Non-recovery of VAT

The state exchequer suffered a loss of ₹ 0.97 crore due to non-recovery of Value Added Tax by the Corporation from the scrap buyers in violation of the Delhi Value Added Tax Act, 2004

In accordance with section 3 (2) of the Delhi Value Added Tax Act, 2004 effective from 1 April 2005, every dealer shall be liable to pay value added tax (VAT) at the specified rates on the value of every sale of goods affected by him, which included sale of unserviceable/obsolete goods and scrap. The third schedule of the Act specifies that all types of scrap not included elsewhere in any schedule of the Act shall attract VAT at the rate of four *per cent*.

We observed that the Corporation had sold a scrap of ₹ 24.35 crore during 1 April 2005 to 31 March 2010. As per said provisions of the Act, the value of the scrap sold by the Corporation attracts a VAT of ₹ 0.97 crore worked out at the applicable rate of four *per cent* of the sales value. As such, the Corporation was required to collect the said amount of VAT from the buyers of the scrap and remit the same with VAT authorities in time so as to avoid any penalty.

We, however, noticed that the Corporation had not collected the said VAT from the scrap buyers and could not deposit the same with the Government of NCT of Delhi in contravention of the provisions of the Act.

In reply to the factual statement, Management stated (November 2010) that registration of VAT is under process with the Sales Tax Department and the due VAT shall be charged from the bidders and deposited with the respective authorities.

The reply of the Management is not acceptable as in terms of the provision of section 3 of the Delhi Value Added Tax Act, 2004 (DVAT Act) every dealer required to be registered under the DVAT Act shall be liable to pay tax in accordance with the Act on every sale of goods effected by him on and from the day on which he was required to be registered under this Act. Further, as per the provisions of section 18 of the Act every dealer is required to apply for registration under this Act if he falls under any of the following cases: (a) the turnover of the dealer in the year 2004-05 or 2005-06 exceeds the minimum taxable value of ₹ 10 lakh, or (b) the dealer, who is registered or required to be registered under Central Sales Tax Act, 1956. The sale of scrap by the Corporation was ranging between ₹ 1.69 crore to ₹ 11.58 crore during 2005-06 to 2009-10 hence, it was required to be registered under the Delhi Value Added Tax Act, 2004 and thus was liable to pay VAT from 2005-06 onwards. Further, the plea of the Management for charging the un-recovered VAT from bidders is also not valid as the scrap was sold to various parties during 2005-06 to 2009-10 and locating the whereabouts of those private parties for recovery of unpaid dues after such a long period is not practically possible.

Thus, the failure of the Corporation in recovering the VAT from scrap buyers not only violated the provisions of DVAT Act but also caused loss of ₹ 0.97 crore to the state exchequer besides extending undue benefit to the private bidders to that extent. Further, the possibilities of penal action against the Corporation for non payment of the VAT to the tax authorities could not be ruled out.

The Corporation is required to streamline the system of recovering the VAT from the scrap buyers at the time of sale and remit the same promptly to the tax authorities so as to avoid such lapses and possibilities of any penal action from the Government.

The matter was referred (January 2011) to the Government/Management; their replies had not been received (January 2011).

5.3.7 Delay in Investment of EPF

Abnormal delay in investment of surplus EPF by the Employees Provident Fund Management of Delhi Transport Corporation resulted in interest loss of ₹ 50.09 lakh.

Delhi Transport Corporation Employees Provident Fund Trust (Trust) was constituted in February 1964. The affairs of the Trust were being managed by the Board of Trustees in accordance with the provision of DTC Employees Provident Fund Regulations, 1978 and the Board of Directors Resolution dated 18 February 1980 as approved by the Regional Provident Fund Commissioner.

The Trust was responsible to utilise the fund so received towards payment of dues to retired personnel and extending various advances to the existing staff of the Corporation. The surplus fund, after meeting the said requirements was to be invested by the Trust in a prudent manner in Central/State Government securities/PSUs/Nationalised Banks, etc. for short as well as long durations so as to ensure maximum returns.

During the period from 12 April 2006 to 21 April 2006 huge payments on account of Employers and Employees contribution and interest on late payment were received by the Trust. A scrutiny of bank statements of trust revealed that as on 21 April 2006 an amount of ₹ 144.45 crore was available with the trust whereas the Trust requires ₹ 10 crore per month for making the payments on account of non- refundable Advance/ Refundable loans and 90 *per cent* advance as final settlement etc., to the employees/ex employees. Thus, it is evident that huge surplus balance of the EPF was available with the Trust for investment. However, the EPF Management had not taken prompt action to invest the funds in short/long term deposits to earn more interest and the funds were kept idle in the savings bank accounts up to 1 May 2006 without any decision on its investment. On 1 May 2006 an amount of ₹ 130 crore was declared as surplus by EPF Management. The EPF Management took another 28 days for completing the process for investing the surplus funds and invested an amount of ₹ 125 crore with Oriental Bank of Commerce on 29 May 2006.

Thus, the Trust suffered an interest loss of ₹ 50.09 lakh* for the period from 21 April to 29 May 2006 due to the failure of EPF Management in taking prompt decision on investment of the surplus funds of the Trust leading to abnormal delay of more than one month in making the investment.

* worked out at differential rate of interest (3.75 *per cent*) between interest earned on saving bank account (3.50 *per cent*) and interest receivable (7.25 *per cent*) on investments made in Oriental Bank of Commerce

The Management/Government while accepting the facts stated (October/ November 2010) that there was no malafide/intentional delay in the investment of surplus funds.

The EPF Management of the Corporation needs to safeguard the financial interests of the Trust through prompt and efficient decision making on investment of surplus funds as the interest earned on such investments is the only source of income for the Trust.

5.3.8 Avoidable Expenditure

Non-availing of the benefits of monthly concessional passes on Delhi-Gurgaon Expressway resulted in loss of ₹ 0.98 crore.

The Corporation has been regularly plying its buses to Gurgaon via Delhi-Gurgaon Expressway. The Delhi-Gurgaon expressway started functioning with effect from 23rd January 2008. The Delhi-Gurgaon Expressway Authority (DGEA) had been charging ₹ 49 per single trip upto March 2008, ₹ 51 per single trip from April 2008 to March 2009, ₹ 54 from April 2009 to March 2010 and ₹ 58 from April 2010 to December 2010. The vehicles, which were plying regularly on Delhi-Gurgaon-Expressway, had the option to avail the benefit of concessional monthly passes. The DGEA had been issuing concessional monthly passes at ₹ 1941 upto March 2008, at ₹ 2020 from April 2008 to March 2009, at ₹ 2139 from April 2009 to March 2010 and at ₹ 2297 from April 2010 to December 2010 for sixty single trips with validity of thirty days by giving a discount of 34 *per cent* of the normal trip rate. Scrutiny of records however revealed that the Corporation had not been availing the benefit of discount by obtaining concessional monthly passes for its buses though it had been plying its buses regularly on the Expressway. The Corporation had paid total expressway charges of ₹ 2.89 crore during January 2008 to December 2010 on per trip basis. Failure to obtain the monthly concessional passes by the Corporation for Delhi-Gurgaon Expressway has resulted in avoidable extra expenditure of ₹ 0.98 crore during the period January 2008 to December 2010.

The Corporation stated (December 2010) that in view of old buses/breakdowns/non availability of drivers in the evening shift the number of buses could not be plied as per schedule and in the event of purchase of monthly passes, the non plying of buses on Gurgaon route would result in financial loss to the Corporation.

The reply of the Corporation is not factually correct as the Corporation had already been availing the benefit of monthly passes for toll tax being levied by MCD on Delhi Gurgaon border in respect of its buses passing through the

expressway. As such, the plea of non-availability of buses on the route is not valid. Further the Corporation's buses on an average performed seven trips per bus/day on Delhi Gurgaon route and the benefit of the concessional passes issued by DGEA was available for 60 single trips with validity of 30 days. Hence, the entire set of concessional passes would be exhausted within eight to nine days as against 30 days validity period of the coupon which itself proves that the purchase of monthly concessional passes would result in savings to the Corporation.

The matter was reported (June 2010) to the Government; their reply had not been received (December 2010).

New Delhi **(RAJVIR SINGH)**

Dated: **Accountant General (Audit), Delhi**

Countersigned

New Delhi **(VINOD RAI)**

Dated: **Comptroller and Auditor General of India**