Chapter-II

2.1 Performance review relating to Government Company

Assam Gas Company Limited

Performance review on Assam Gas Company Limited

Executive summary

Assam Gas Company Limited was incorporated in March 1962 as a wholly owned State Government Undertaking mainly for processing and transportation of natural gas for industrial consumers situated in Upper Assam. Out of six industrial consumers existing as on 31 March 2009 compressed gas at high pressure is being transported to three consumers for which it has a compressor station. Since 1985, it has been procuring natural gas at low pressure from producers and supplying to commercial and domestic consumers through its pipeline. Transportation Charge (TC) from industrial and non-industrial consumers constitutes the main source of income.

The Performance Audit was conducted to ascertain efficiency and economy in natural gas procurement, working of compressor station, infrastructure development, transportation of gas, inventory and fund management and internal control mechanism existing in the company.

Finances and Performance

The Company has finalised annual accounts upto 2007-08. During 2003-08, the total income and expenditure were Rs.334.01 crore and Rs.214.73 crore respectively. The net profit (before tax) of Rs.119.28 crore earned during the period consisted of non-operating income of Rs.24.87 crore (21 *per cent*).

Purchase of natural gas

The Company has been procuring natural gas from Government sources as well as from a private producer. It failed to maintain efficiency and economy in gas purchase from the private producer and incurred an avoidable expenditure of Rs. 8.63 crore.

Compressor Station

Low-pressure natural gas received from Oil India Limited is compressed in the compressor station to supply as high-pressure gas to three industrial consumers. After adding four compressors at a total cost of Rs.20.19 crore to the existing six compressors, the actual utilisation was increased from two to three compressors only. This indicates that the additional investment made was not justified.

Infrastructure development

During the period under review, the gas supply system to three out of six major industrial consumers was revamped at a total cost of Rs.75.42 crore. This resulted in creation of excess capacity than the actual requirement by incurring an avoidable expenditure of Rs.20.24 crore.

Transportation of natural gas

The volume of gas transported during 2004-09 increased by 14 *per cent*, whereas the TC levied during the same period showed an increase of 82 *per cent*. Main reasons for the disproportionate increase in revenue were excess levy of TC by inflating the cost of supply system revamped during the period, levy of TC on avoidable infrastructure additions made as part of revamping of the supply system, upward revision of TC on renewal of existing agreements with consumers *etc.*

Sale of natural gas

Besides transportation of natural gas for and on behalf of industrial consumers, the Company was also supplying piped natural gas to non-industrial consumers. During the period upto 2008-09, a total quantity of 50.31 MMSCM valued at Rs.10.99 crore

was billed in excess compared to the purchased quantity.

Fund management

The Company has availed loans at higher interest for execution of major capital works inspite of availability of surplus funds in fixed deposits, which earned lower interest and suffered a loss of Rs.2.19 crore. Similarly, due to parking of surplus funds in current accounts instead of short-term deposits, the Company suffered a loss of interest of Rs.1.34 crore.

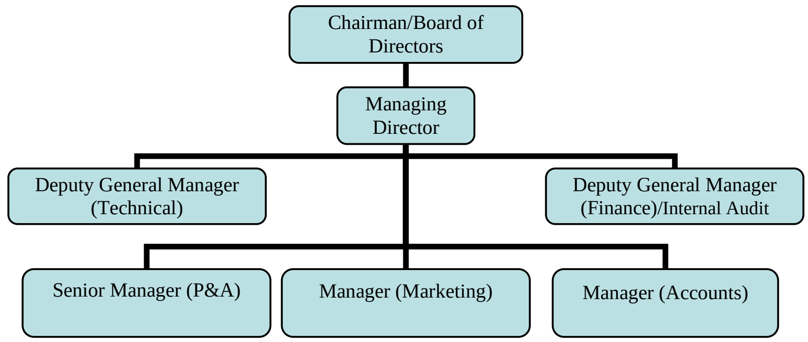
Conclusion and Recommendations

The Company is yet to evolve a scientific and uniform method for fixation of TC and its billing. The excess capacity additions made in the infrastructure needs to be utilised by expanding its market base. The audit findings also indicate the need for strengthening the internal audit and internal control system.

Introduction

2.1.1 Assam Gas Company Limited was incorporated in March 1962 as a wholly owned Government undertaking. From 1965 onwards, the Company has been in the business of collection, processing and distribution of natural gas to industries situated in Upper Assam through integrated gas transportation system. Out of the six major industrial consumers existing as on 31 March 2009, compressed gas at high pressure is being supplied to three consumers namely Brahmaputra Valley Fertilizer Corporation Limited (BVFCL), Namrup Thermal Power Station (NTPS) of Assam Power Generation Corporation Limited (APGCL) and Assam Petrochemicals Limited (APL), for which it has a gas compressor station at Duliajan. Since 1985, the Company has also been supplying piped natural gas at low pressure to commercial and domestic customers in various towns of Upper Assam. As on 31 March 2009, the network of the Company consisted of 2,500 kilometers of pipeline, with different sizes ranging from 32 mm to 800 mm.

2.1.2 The management of the Company is vested in a Board of Directors (BoD) consisting of eleven members including Chairman, Deputy Chairman and Managing Director. Out of the 11 members, nine members were nominated by the Government of Assam, one member was nominated by Oil India Limited (OIL) and another member by Assam State Electricity Board. Organisational chart of the Company is as follows:



2.1.3 The Company has finalised its annual accounts upto 2007-08 and the financial position and working results for the last five years upto that period are given in ***Annexure*-7 & 8**. The summarised position is given below:

Particulars	2003-04	2004-05	2005-06	2006-07	2007-08
	(Rupees in lakh)				
LIABILITIES					
Capital plus Reserves & Surplus	7,034.09	7,888.35	10,276.87	11,670.96	13,510.69
Liabilities	8,457.25	15,156.03	18,463.22	18,097.41	14,851.31
Assets	15,491.34	23,044.38	28,740.09	29,768.37	28,362.00
Income	4,871.76	5,064.34	6,783.98	8,094.23	8,587.19
Expenditure	2,525.03	3,043.79	4,477.96	5,655.93	5,770.36
Net profit before tax	2,346.73	2,020.55	2,306.02	2,438.30	2,816.83

Scope of audit

2.1.4 The present performance review for the period from April 2004 to March 2009 conducted during March to May 2009, covered examination of records maintained by various departments namely, Planning and Business Development, Compressor, Pipe Line Instrumentation, Finance and Accounts, Stores and Personnel in Head Office and one out of ten Gas Grid offices.

Audit objective

2.1.5 The main objective of the review was to ascertain:

(i) Whether the purchase of Natural Gas was made economically and in the best interest of the Company;

(ii) Whether the Company has been operating its compressor station at optimum capacity and efficiency;

(iii) Whether the requirement of developing pipeline infrastructure was assessed judiciously and its economies have been maintained;

(iv) Whether the transportation charges levied is reasonable or not;

(v) That there was no excess or short assessment of sales and the system prevailing in the Company is scientific to safeguard its interest;

(vi) Whether the inventory management system existing in the Company is scientific and effective;

(vii) Whether the Company managed its funds economically and efficiently; and

(viii) Whether the internal audit and internal control system existing in the Company is adequate.

Audit criteria

2.1.6 Audit criteria included the following:

(i) BoD Minutes and Agenda Notes;

(ii) Central and State Government orders, rules and other guidelines; and

(iii) Purchases, Sales and other contracts.

Audit methodology

2.1.7 The following mix of methodologies were adopted in the performance audit:

(i) Scrutiny of Agenda Notes, Minutes of BoD Meeting and sub committee meetings;

(ii) Scrutiny of financial statements;

(iii) Scrutiny of fixation of Transportation Charges;

(iv) Scrutiny of purchases, sales and stores records;

(v) Scrutiny of compressor plant performance reports; and

(vi) Issue of audit enquiries and interaction with management.

Audit findings

2.1.8 Audit findings were reported to the Company and the Government in July 2009 and were discussed (22 July 2009) in the Exit Conference which was attended by the Joint Secretary, Industries and Commerce, Government of Assam and Managing Director along with other officers of the auditee unit.

The views expressed by them have been considered while finalising the performance review.

The Company has been earning profit continuously and during the last five years upto 2007-08, it earned a total profit (before tax) of Rs.119.28 crore. This includes non-operating income of Rs.24.87 crore (21 *per cent*). The *percentage* of profit to turnover has come down from 48 in 2003-04 to 33 in 2007-08 and decline in profitability was mainly due to business development not comensurating with the increase in expenditure. During the period under review, increase in the volume of gas transported were 14 *per cent* only whereas expenditure increased by 129 *per cent* as compared to increase in income by 76 *per cent*. Major activities of the Company *viz*, procurement and sale of natural gas, working of compressor station, infrastructure development, transportation of gas, inventory and fund management *etc.*, were reviewed and areas to be streamlined or strengthened are discussed in succeeding paragraphs:

Purchase of natural gas

2.1.9 The salient features of pricing policy adopted by Government of India on natural gas are as follows:

- Two-tier pricing *i.e.* Administered Price Mechanism (APM) and Non-Administered Price Mechanism (Non-APM) has been prescribed;
- Under APM Scheme, the priority sector consumers (Power, Fertilizer and small scale) will get allotted gas at subsidised rate;
- Price of natural gas to other consumers will be at market rate fixed by the Government and
- Gas price to the consumers of North-Eastern region (APM and Non-APM) will be lower than the price to consumers of other region.

2.1.10 The Company has been procuring natural gas under APM scheme from Oil India Limited (OIL) and Oil and Natural Gas Corporation Limited (ONGCL) to cater to the demand of its small-scale consumers. In addition, from June 2006 onwards, it has been procuring gas under Non-APM scheme from a private company Canaro Resources Limited (CRL) to meet the demand of tea garden consumers of Sonari Gas Grid and Lakwa Thermal Power Station (LTPS) of Assam Power Generation Corporation Limited (APGCL). The APM and non-APM gas procured were supplied to the respective consumers at the purchase price and thus, the Company is passing the actual cost on procurement to the consumers. In the absence of any other option, the consumers are forced to accept whatever be the price at which the Company procured natural gas. Following table shows the details of purchase made during the last five years up to 2008-09.

Source	Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
OIL	Volume in MMSCM[1]	105.16	109.35	132.51	121.22	120.93
	APM rate- Rs./1000 SCM[2]	1700	1700/1920[3]	1920/2304[4]	2304	2304
ONGC/GAIL	Volume in MMSCM	63.53	50.63	43.89	43.79	50.60
	APM rate- Rs./1000 SCM	1700	1700/1920	1920/2304	2304	2304
Total Purchase from Govt source (MMSCM)		168.69	159.98	176.40	165.01	171.53
CRL	Volume in MMSCM	-	-	9.14	13.90	51.21
	Non-APM rate- Rs./1000 SCM	-	-	3200/3840[5]	3840	3840

While the purchases from the Government sources increased by two *per cent* only during the last five years, purchase from private source during the year 2008-09 increased by more than three fold compared to the previous year. Review on the purchase of natural gas revealed that the Company failed to maintain efficiency and economy in purchase from private supplier. Discrepancies noticed in this regard are discussed in the succeeding paragraphs.

Procurement of gas at higher rate

The Company incurred avoidable cost of Rs.3.33 crore on natural gas procured under non-APM scheme.

2.1.11 The Company has been procuring natural gas from OIL since April 1974 for supplying to Jorhat–Golaghat Gas Grid and Naharkatia Tea Gas Grid. Similarly, gas was procured from CRL (June 2006) for supply of gas to Sonari Tea Gas Grid. While gas supply from OIL has been under APM scheme, the other has been under Non-APM Scheme. During last three years (2006-2009) the price of CRL gas was higher by Rs.896/1000 SCM to Rs.1,536/1000 SCM than the price of OIL gas (CRL price Rs.3,200 to Rs.3,840/1000 SCM and OIL price Rs.1,920 to Rs.2,304/1000 SCM).

During 2006-07 to 2008-09, procurement of gas from OIL has come down from 0.10 MMSCMD[6] (2006-07) to 0.07 MMSCMD (2008-09) against the booked quantity of 0.155 MMSCMD. Consequently, due to non-drawal of the booked quantity, there were instances of claiming Minimum Guaranteed off-take charges by OIL though no payment on this account has so far been made by the Company till date. At the same time, procurement from CRL has increased from 0.03 MMSCMD (2006-07) to 0.14 MMSCMD (2008-09) as against their booked quantity of 0.05 MMSCMD. This indicated that the Company had extended undue benefit to private party (CRL) at the cost of consumers. Analysis of the monthly off-take from these two sources revealed that the Company procured 24.21 MMSCM of Non-APM gas from CRL

[1] Million Metric Standard Cubic Metre.
[2] Standard Cubic Metre.
[3] Rs.1,920 with effect from July 2005.
[4] Rs.2,304 with effect from June 2006.
[5] Rs.3,840 with effect from March 2007.
[6] Million Metric Standard Cubic Metre per Day.

instead of procuring it from OIL under APM Scheme. This has resulted in avoidable cost of Rs.3.33 crore[1] on the purchase of gas which was passed on to the consumers, as they had no other options.

The Government stated (October 2009) that there was no allocation from OIL for Sonari Tea Gas Grid, which is contradictory to their reply furnished under ***Paragraph 2.1.24*** in which it was stated that the supply to Sonari Tea Gas Grid was actually from OIL. It was further stated that distribution of gas is an internal arrangement of the Company. But the fact remains that the Company should have drawn maximum quantity of gas under APM scheme to minimize the cost.

Irregular payment on purchase of natural gas

Natural gas procured under non-APM scheme was paid at the rate applicable to APM consumers of other than NE Region—Loss Rs.5.30 crore.

2.1.12 The Company entered into an agreement with CRL in August 2006 for purchase of 0.05 MMSCMD of natural gas under Non-Administered Price Mechanism (Non-APM) scheme at the rate of Rs.3,200/MSCM fixed by Government of India (GOI) vide notification dated 20 June 2005. On the basis of price revision ordered by GOI in June 2006 for gas supplied under Administered Price Mechanism (APM) scheme to consumers of other than North-Eastern Region (from Rs.3,200/MSCM to Rs.3,840/MSCM), CRL demanded increase in price w.e.f January 2007. The revision in rate was for APM gas supplied to consumers of other than North - Eastern region and it pertained to period prior to entering into the above agreement with CRL, yet the Company accepted increase in price from Rs.3,200/MSCM to Rs.3,840/MSCM with effect from March 2007 and passed on the burden on consumers. This led to irregular payment of Rs.5.30 crore.

Government stated (October 2009) that the agreement with CRL was for the purchase of Non-APM gas at APM rate applicable to other than North Eastern region and hence the price revision was accepted. The reply is not convincing as the agreement was for purchase of Non-APM gas at Non-APM rate of Rs.3,200/MSCM as fixed by GOI for North-Eastern Region consumers and this rate has not been revised till date (August 2009). Further there was no mention in the agreement to apply the APM rate applicable to the consumers of other than North-Eastern Region on the gas supply by CRL.

Performance of compressor station

2.1.13 Natural gas received from OIL at a pressure of 10.54 Kg/Cm^2g +/- 5% is compressed in the compressor station of the Company at Duliajan and supplied to the three consumers (BVFCL, NTPS and APL) at a pressure ranging from 14.2 Kg/Cm^2g to 15.12 Kg/Cm^2g through pipeline network of the Company. The compressor station had six compressors with a total capacity to supply 3.27 MMSCMD of High Pressure (HP) gas as against the total booked quantity of 1.787 MMSCMD comprising BVFCL (0.927

[1] 6.15 MMSCM @ Rs.896/1000 SCM and 18.06 MMSCM @ Rs.1,536/1000 SCM.

MMSCMD), NTPS (0.66 MMSCMD), APL (0.15 MMCSMD) and way side consumers (0.05 MMSCMD).

The table below shows the summarized position of the performance of the compressor station for the last five years up to 2008-09.

Sl. No.	Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Installed Capacity						
1.	Number of Compressors installed	6	10	10	10	10
2.	Total Capacity (In MMSCM per day)	3.27	5.478	5.478	5.478	5.478
3.	Total Capacity after de-rating (In MMSCM per day)	2.7	4.908	4.908	4.908	4.908
4.	No. of compressors kept stand by	4	7	7	7	7
5.	Maximum No. of compressors in operation	2	3	3	3	3
6.	Capacity of operating compressors (MMSCM/day)	1.09	1.64	1.64	1.64	1.64
7.	Capacity of operating compressors after de-rating (MMSCM per day)	0.9	1.47	1.47	1.47	1.47
Actual Capacity Utilization						
8.	Total Compressed gas supplied (MMSCM)	256.91	363.42	335.41	394.79	399.33
9.	Gas supplied per day (MMSCM per day)	0.70	0.995	0.92	1.08	1.09
10.	Capacity utilization of operating compressors (in *per cent)*	64	61	56	66	66
11.	Capacity utilization of operating compressors after de-rating (in *per cent)*	78	68	63	73	74
12.	Installed capacity utilization (in *per cent*)	21	18	17	20	20
13.	Installed capacity utilization after de-rating (in *per cent*)	26	20	19	22	22

On further analysis, it was observed that in the year 2000, the Company entered into an agreement with BVFCL for providing a completely dedicated gas transportation system with two existing compressors and two new compressors to be installed. In March 2003, the booked quantity for NTPS was enhanced from 0.66 MMSCMD to 0.80 MMSCMD, inspite of no corresponding increase in allotment by the supplier of gas (OIL). The Company also expected a further drawal of 0.50 MMSCMD of HP gas by APGCL for their Lakwa Thermal Power Station (LTPS). Considering the requirement for a completely dedicated system for BVFCL and increase in total demand for HP gas from 1.787 MMSCMD to 2.427 MMSCMD, Company installed (March 2005 to October 2005) four new compressors, with a capacity of 0.552 MMSCMD each at a total cost of Rs.20.19 crore. As a result, the total capacity of the compressor station increased to 5.478 MMSCMD.

It may be seen that after addition of four compressors in 2005-06 to the existing six compressors, the actual utilisation has increased from two to three compressors only. Thus, additional installation of compressor made at a total cost of Rs.20.19 crore was not justified and the compressor station continued to be underutilised. This has been further analysed in the succeeding paragraphs under ***2.1.15*** and ***2.1.16***.

The Government stated (October 2009) that out of the original six compressors, one compressor (installed in 1971) has outlived its life and its capacity has been de-rated to 50 *per cent i.e.* 0.2 MMSCMD and other three compressors purchased in 1981 were also de-rated to 0.5 MMSCMD each (July 2003). Reply is not convincing as even after de-rating the capacity of the old compressors alongwith newly installed compressors the utilisation of the compressor station was maximum of 26 *per cent* in 2004-05 and the utilisation was as low as 22 *per cent* in 2008-09.

Infrastructure development

2.1.14 Gas transportation network of the Company as on 31 March 2009 consisted of 2,500 Kms. of pipeline with different sizes ranging from 32 mm to 800 mm. During 2004-09, the gas supply systems of three out of six major industrial consumers was revamped at a total cost of Rs.75.42 crore. Review conducted to assess the requirement of infrastructure developed by the Company revealed that it was much more than the actual requirement. This has been further discussed in the succeeding paragraphs.

NTPS and APL gas transportation systems

Failure of the Company in designing the gas supply system according to actual requirement of NTPS and APL has resulted in avoidable investment of Rs.9.11 crore.

2.1.15 The Company decided (May 2003) to construct a new High Pressure (HP) gas pipeline (500 mm x 25 Kms) from OIL, Duliajan to NTPS, Namrup to replace the existing HP line of 350 mm from Duliajan to Namrup *via* Naharkatia as well as to install two more compressors as part of modernisation to meet the increased demand for gas transportation to NTPS (from 0.66 to 0.80 MMSCMD), APL (0.15 MMSCMD), Wayside Consumers (0.05 MMSCMD) and an additional demand for 0.50 MMSCMD of gas for LTPS of APGCL. The pipeline was commissioned in May 2004 and the two compressors were commissioned in July 2005 and October 2005 respectively at a total cost of Rs.28.92 crore. Though the Company was well aware of the fact that the consumers would draw only 80-85 *per cent* of their booked quantity, the infrastructure was designed to transport 1.80 MMSCMD of gas as against their total demand of 1.50 MMSCMD.

The supply of HP gas to LTPS has not materialised till date and instead from January 2005 onwards the Company has been transporting Low Pressure (LP) gas to LTPS through the existing 350 mm pipeline. Further, no increase in allotment of natural gas by OIL to NTPS has taken place till date. Thus, the infrastructure created at a cost of Rs.28.92 crore for transportation of 1.80 MMSCMD of natural gas has remained underutilised and the actual HP gas transported through its new line ranged from 0.56 MMSCMD (2005-06) to 0.77 MMSCMD (2008-09) only. For transportation upto 1.00 MMSCMD of HP gas the line capacity required was only 350 mm as against the designed capacity of 500 mm. Similarly, the Company has been running only two compressors at a time as against the available six compressors with a combined capacity of 2.954 MMSCMD *i.e* after considering de-ration in capacity due to overage of the old compressors. Failure of the Company to design the systems according to the actual requirements has resulted in avoidable investment of Rs.9.11 crore on providing pipeline with higher capacity (pipe and its laying cost alone Rs.4.10 crore) and installation of one compressor (Rs.5.01 crore).

The Government stated (October 2009) in their reply that NTPS is presently drawing gas upto 0.80 MMSCMD of gas even though allotment for them was only for 0.66 MMSCMD only. The reply is not convincing as the transportation of gas upto 1.00 MMSCMD could be done through 350 mm pipeline against which the Company installed 500 mm pipeline. Further, the Company was well aware of the fact that LTPS requires only low-pressure gas and for which a separate pipeline already existed.

BVFCL gas transportation system

Failure of the Company in designing the gas supply system according to actual requirement of BVFCL has resulted in avoidable investment of Rs.11.13 crore.

2.1.16 As per agreement executed (November 2000) with BVFCL, a Government of India enterprise, the Company constructed an isolated and fully dedicated gas transportation system for their revamped fertilizer plant at a total cost of Rs.46.50 crore. The pipeline constructed in September 2002 includes 400 mm x 30 kilometers L.P. line parallel to the existing 350 mm x 30 kilometers L.P. line and 400 mm x 25 kilometers H.P. line, replacing the existing 350 mm x 25 kilometers H.P. line. In addition to the existing two compressors, two new compressors with capacity of 0.550 MMSCMD each were also installed in August 2005.

The pipeline for BVFCL was designed and constructed to transport 2.676 MMSCMD of natural gas. This was 20 *per cent* more than the expected increase in supply/drawal of gas from 1.72 MMSCMD to 2.230 MMSCMD. The expansion works were carried out without getting any firm allotment for additional gas from the OIL/Central Government. Since commissioning of pipelines in September 2002 and the compressors in August 2005 respectively, the gas allotment by the supplier was not increased beyond 1.72 MMSCMD and the actual drawl by BVFCL was also not increased as expected. The actual gas drawal was in the range of 0.96 MMSCMD (2002-03) to 1.47 MMSCMD (2007-08) only. Thus, the creation of additional capacity of 20 *per cent* above the expected drawal of gas has resulted in avoidable expenditure of Rs.6.05 crore on pipelines. Similarly, on installing two more compressors at a cost of Rs.10.17 crore in addition to the existing two, the total capacity of the dedicated compressor station has increased from 1.00 MMSCMD to 2.10 MMSCMD as against the booked quantity of 0.927 MMSCMD of HP gas. Scrutiny of compressor log books revealed that the Company has never operated more than one compressor at a time for supply of HP gas to BVFCL and the maximum HP gas drawn was 0.42 MMSCMD only indicating that the Company has been able to utilise only 40 *per cent* of its compressor and line capacity. Thus, the Company could have avoided installation of one additional compressor costing Rs.5.08 crore. Failure of the Company in assessing the actual requirements has resulted in avoidable expenditure of Rs.11.13 crore (Rs.6.05 crore + Rs.5.08 crore).

The Government stated (October 2009) that the gas supply as per the scheme has not materialised due to failure of BVFCL to revive their plants to draw the contracted quantity of gas and excess capacity in the pipeline (33 *per cent*) was provided as per stipulation of Petroleum and Natural Gas Regulatory Authority of India. The reply is not convincing since the excess capacity in compressor station as well as pipelines were created without getting any firm allotment for gas by the producer and also the excess capacity provided in pipeline was more by 56 *per cent*.

Transportation of Natural Gas

2.1.17 The Natural gas procured directly by the industrial consumers is transported through the pipeline infrastructure created by the Company and Transportation Charge (TC) is being levied for this. In case of other consumers the Company has been procuring gas from producers and supplying through its pipeline network. The sale price in this case includes TC. In both the cases TC is the main source of income. Basic factors governing fixation of TC are the investment involved in developing the infrastructure, volume of gas expected to be transported and other operational parameters. A comparison of TC fixation done in respect of the major industrial consumers indicated that the Company was yet to evolve a standardised method for TC fixation as detailed below:

Particulars	DLF[1]	BVFCL	NTPS	APL	NEEPCO	LTPS
TC fixed in (Month & Year)	October 1995	November 2000	March 2003	May 2003	August 2008	December 2008
Length and size of line	15 KM x 100 mm (LP)	25 KM x 400 mm (HP) 26 KM x 400 mm (LP)	25 KM x 500 mm (HP) common to NTPS and APL		7.5 KM x 610 mm (LP)	25 KM x 350 mm 58 KM x 400 mm 52 KM x 300mm (LP)
Booked quantity of gas (In MMSCMD)	LP-0.15	HP-0.927 LP-1.303	HP-0.80	HP=0.15	LP=1.00	LP-0.50
TC rates	Rs. 250/1000 SCM	Rs. 19 crore per annum irrespective of quantity of gas transported	Rs.320/1000 SCM	Rs. 320/1000 SCM	Rs. 54/1000 SCM	For 25 KM-Rs.349.67/1000 SCM For 58 KM=Rs.216/1000 SCM For 52 KM-Rs.565/1000 SCM (total of first two rates)
Future escalation agreed in TC	Yearly 5 % increase from 3rd year onwards	Yearly 1 % increase	Yearly 3 % increase	Yearly 3 % increase	Yearly 2.5 % increase	Yearly 3 % increase
Minimum Demand Charges	No MDC	Not applicable	80 %	80 %	75 %	For 25 KM line-80 % For 58 KM line-90 %
Plant working days	365	300	365	365	365	For 25 KM line-365 days For 58 KM line-330 days
Depreciation method and rate	WDV-33 %	SLM-5.51 %	WDV-20 %	WDV-20 %	SLM- 4 %	For 25 KM line WDV-20 % For 58 KM line SLM-4 %

[1] DLF Power Limited.

Particulars	DLF	BVFCL	NTPS	APL	NEEPCO	LTPS
Yearly increase considered in Salary and wages	10 %	10 %	10 %	10 %	12.50 %	For 25 KM-10 % For 58 KM-12.5 %
ROE/ROI/IRR	IRR-23 %	ROE- 19.51 % (Before Tax)	IRR-16.46 %	IRR-16.46 %	ROI-12.5 % (Post Tax)	For 25 KM-IRR-16.46 % For 58 KM-14 % (Post Tax)

Further, trend analysis made on gas transportation activity revealed that total TC levied has increased disproportionately compared to the increase in volume of gas transported during the last five years upto 2008-09, as shown below:

Year	Volume of gas Transported (in MMSCM)	*Percent*age change from 2004-05	TC levied (Rs in crore)	*Percent*age change from 2004-05
2004-05	1490.79	-	46.74	-
2005-06	1693.94	14	60.66	30
2006-07	1669.17	12	71.61	53
2007-08	1728.15	16	74.03	58
2008-09	1702.60	14	85.06	82

The disproportionate increase in TC was mainly due to excess levy of TC by inflating the cost of supply system revamped during the period, levy of TC on avoidable infrastructure additions made as part of revamping supply system, upward revision of TC on renewal of existing agreements with consumers *etc.* Major points observed in this regard are discussed below:

Excess levy of TC on NTPS and APL

The Company levied Rs.8.21 crore in excess from NTPS and APL towards TC.

2.1.18 As against the estimated project cost of Rs.49.67 crore for revamping gas supply system to NTPS and APL, the actual cost incurred on completion of the work was Rs.28.92 crore only and that too without any change in compressor specification and pipeline design or its Right of Way. The actual cost was less than the estimated cost by 58 *per cent* in respect of compressors and 27 *per cent* in respect of pipelines. The total cost of Rs.28.92 crore was met out of bank loan of Rs.25 crore and Company's contribution of Rs.3.92 crore. Though, the actual cost has come down by Rs.20.75 crore, the TC fixed on the basis of the original project estimate of Rs.49.67 crore has not been revised and as a result, the Company has been levying excess TC on APL (May 2004 onwards) and NTPS (July 2005 onwards). The excess levy of TC worked out to Rs.8.21 crore up to 31 March 2009.

In reply, the Government stated (October 2009) that TC was fixed on mutual agreement with the consumers is not convincing as the excess levy of TC had an adverse impact on pricing of their output.

Excess levy of TC on BVFCL

The Company levied Rs.12.25 crore in excess from BVFCL towards TC due to overestimation of project cost.

2.1.19 The estimated project cost (BVFCL Revamping Project) of Rs.60 crore included Rs.20 crore for two compressors and Rs.40 crore for pipelines. Actual costs incurred on these were Rs.10.17 crore and Rs.36.33 crore respectively which were lower by 49 *per cent* in the case of compressors and 9 *per cent* in the case of pipelines. The reduction in cost was achieved without changing compressor specification, pipeline design or Right of Way. This indicates that the Company overestimated the cost in the Project Report. Though the actual cost came down, the Company availed the entire loan of Rs.43 crore and therefore its own contribution for the project has declined to Rs.3.50 crore. The annual TC of Rs.19 crore (with 1 *per cent* increase every year) fixed on the basis of the estimated project cost of Rs.60 crore, has not been reviewed on the basis of actual cost incurred. Due to this T.C fixed initially was in excess by Rs.3.38 crore per annum considering two major factors alone *i.e*. Depreciation (5.51 *per cent*) and Return on Equity (19.51 *per cent*) and the cumulative excess billing from September 2005 to 31 March 2009 worked out to Rs.12.25 crore.

In reply, the Government stated (October 2009) that the project cost was arrived at by selecting budgetary quotes from selected vendors and savings in project cost will offset any probable loss due to delay in payment of TC by BVFCL. The reply is not convincing as the higher fixation of TC had an adverse impact on their pricing and there is no abnormal delay in payment of TC.

Gas Transportation to LTPS

Transportation charges levied on the basis of newly laid pipeline though the supply was made from existing old pipeline. This has resulted in excess levy of TC by Rs.1.14 crore.

2.1.20 APGCL decided (February 2004) to utilise 0.20 MMSCMD of LP Gas from OIL source in LTPS on 'fall back' basis for a period of three years due to low off-take of natural gas by NTPS from OIL source at Duliajan. Drawal of gas on that basis commenced in January 2005 after linking the existing 350 mm Duliajan—Namrup line with 400 mm Namrup—Lakwa line (total length: 83 Kms.). In addition, from January 2007 onwards it has been supplying a portion of natural gas procured from CRL through the existing 300 mm Khoraghat—Lakwa LP line (52 Kms) and for both the supplies, TC has been levied at the same rate of Rs.180.35/1000 SCM of gas.

When APGCL decided to utilise 0.50 MMSCMD of LP gas in LTPS which was originally allotted for their proposed Amguri Thermal Power Plant, a new agreement was executed in December 2008 with the revised TC rate of Rs.565.70/1000 SCM. Drawal of gas for LTPS ranged from 13.32 MMSCM (December 2008) to 15.51 MMSCM (March 2009). On drawal of gas as per new agreement, the Company has been levying TC at new rates for both the supplies from OIL as well as CRL sources. The new rate of Rs.565.70/1000 SCM includes Rs.349.70 towards TC for gas transportation from Duliajan to Namrup through the newly constructed 500 mm HP line, whereas the

Company has been transporting LP Gas through the existing 350 mm line without any change in the transportation system either from the OIL source at Duliajan or CRL source at Amguri. Therefore the TC for the above sector *i.e.* Duliajan—Namrup should have been Rs.145/1000 SCM instead of Rs.349.70/1000 SCM.

Thus the revised TC was very much on the higher side and the excess TC levied from LTPS, a State owned power sector Company for a period of four months from December 2008 to March 2009 worked out to Rs.1.14 crore as shown in the following table:

Month	**Quantity of gas transported (in MMSCM)**			**TC due as per pre revised rate of Rs.330.76/1000 SCM[2] (Rs in lakh)**	**TC levied as per revised rate of Rs. 565.70/1000 SCM (Rs. in lakh)**	**TC levied in excess (Rs. in lakh) (VI-V)**
	OIL Source	**Canaro Source**	**Total[3]**			
I	**II**	**III**	**IV**	**V**	**VI**	**VII**
December 08	10.23	3.09	13.32	41.01	70.15	29.14
January 09	11.76	4.34	16.10	41.01	70.15	29.14
February-09	10.44	3.90	14.34	37.05	63.36	26.31
March-09	11.37	4.14	15.51	41.01	70.15	29.14
Total	**43.80**	**15.47**	**59.27**	**160.08**	**273.81**	**113.73**

The Government in their reply stated (October 2009) that higher TC has been charged on LTPS because of complex gas Transportation Network. The reply is not convincing as low-pressure gas was supplied through the old pipelines of 350 mm only and new HP pipeline of 500 mm was never used for LTPS.

Delay in arranging metering works

Delay in arranging metering works costing Rs.1.86 lakh has resulted in loss of revenue of Rs.49.13 lakh.

2.1.21 In order to transport gas on fall back basis a loop line (3 Km x 400 mm) linking the existing 350 mm HP line from Duliajan to Namrup and 400 mm Namrup to Lakwa was constructed in May 2004. After that the Company, however, took more than six months for arranging (December 2004) metering works costing Rs.1.86 lakh at Lakwa, and gas transportation to LTPS commenced only in January 2005. The delay in arranging the metering works has resulted in a loss of revenue of Rs.49.13 lakh.

The Government stated (October 2009) that the delay was because of non-availability of the metering materials and the system was commissioned with unused materials available with Doomdooma gas grid, which indicated that the delay was avoidable.

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[2] For Duliajan to Namrup @ Rs.145/1000 SCM *plus* for Namrup to Lakwa @ Rs.185.76/1000 SCM. (total rate: Rs.330.76/1000 SCM).

[3] As per agreed conditions, TC limited to 80 *per cent* of the booked volume.

Sale of Natural Gas

2.1.22 Besides transportation of natural gas for and on behalf of industrial consumers the Company was also supplying piped natural gas to non industrial consumers *viz* tea gardens (327 Nos.), commercial (575 Nos.) and domestic consumers (20,995 Nos.). For administrative convenience these consumers were grouped under 21 Gas Grids. The sales of natural gas by the Company for the last five years upto 2008-09 were reviewed to ascertain that there was no excess or shortage in sales with reference to the purchased quantity, the revenue assessment and collection system were efficient.

Table below shows the purchase and sales of natural gas made for the last five years upto 2008-09.

Years	Purchases	Sales	Excess
	(Quantity in MMSCM)		
2004-05	168.69	178.98	10.29
2005-06	159.68	174.60	14.92
2006-07	185.54	194.27	8.73
2007-08	178.92	189.37	10.45
2008-09	222.75	228.67	5.92
Total	**915.58**	**965.89**	**50.31**

From the table above it is seen that during all the five years the billed quantity was in excess of the purchases made. This is further discussed in the succeeding paragraphs.

Excess billing cum irregular retention of royalty

Natural gas sold to non-industrial consumers have been billed in excess by Rs.10.99 crore.

2.1.23 The Company has been receiving gas through 15 off take points to cater to 21 Gas Grids. From each off-take point gas was flowing to different Gas Grids. While metering has been done at the fifteen off take points, no metering was provided at the grids. Thus, the grid-wise intake and sales to the end users could not be reconciled. Scrutiny of the gas purchases made through fifteen off-take points and total sales made thereagainst revealed that total sales recorded were abnormally higher than supply received in ten off-take points[4]. In respect of the balance five off-take points no such discrepancy was observed.

During the period from April 2004 to March 2009, the Company procured 639.51 MMSCM of gas through the above ten off-take points against this the consumers were billed for 689.82 MMSCM, which was 7.87 *per cent* higher than the purchased quantity. On the excess quantity (50.31 MMSCM) billed, the Company has recovered an amount of Rs.10.99 crore towards gas price. On the excess billed quantity of 50.31 MMSCM of gas, the Company has realised Rs.1.46 crore towards royalty. Instead of remitting the royalty received to Government account it has been appropriated by the Company.

[4] 1. LPG Duliajan, 2. Amguri. 3.Koraghat 4. Dibrugarh. 5. Kushijan 6. Santi OCS
7. Savitri OCS 8. LPG Moran 9. Deroi 10 Margherita.

The Government stated (October 2009) that collection of gas of different compositions at different pressure conditions at multiple points and again distributing the same at multiple points at different pressure conditions over a large area is the cause of the discrepancy. Further the *percentage* of increase in the billed quantity was 0.61 only, if the quantity of gas transported for and on behalf of industrial consumers were also taken into account. The reply is not convincing, as there was no scope for any physical gain or loss of gas in transportation through pipeline. The discrepancy in respect of industrial consumers were dealt with separately since majority of the consumers were provided with dedicated pipelines. Hence, irregularity in gas supplied to non-industrial consumers cannot be combined with irregularity in respect of industrial consumers. In respect of royalty, Government while accepting the fact stated that the matter would be examined.

Sale of gas at different Calorific Value

Failure of the Company in executing transportation agreements on the basis of source of gas supply has resulted in excess revenue realisation of Rs.39 lakh.

2.1.24 As per the pricing policy adopted by the Company, the consumer has to be billed at actual procurement price of gas linked to its calorific value (CV) plus TC and other statutory levies. Accordingly, agreement with tea garden consumers were executed for gas supplies from specific sources. Thus, the consumers were ensured for the supply of gas at the same CV at which the Company procured for them. On scrutiny of the billing it was noticed that out of 21 Gas Grids, the Company failed to bill consumers in two Gas Grids at the actual procurement cost of gas based on CV. During 2006-09, the Company billed for 28.40 MMSCM gas to Sonari Tea Gas Grid at CV of 8,307 (OIL) against procured CV of 9,701 (CRL) for which it has incurred revenue loss to the extent of Rs.1.35 crore. On the other hand during the same period the Company billed for 54.30 MMSCM gas to Jorhat-Golaghat Gas Grid at CV of 9,701(CRL) against procured CV of 8,307 (OIL) for which it earned extra revenue to the extent of Rs.1.74 crore. Thus the Company had earned net excess revenue of Rs.39 lakh on account of billing at different CV.

Government stated (October 2009) that the Sonari Tea Gas Grid is getting gas supply from OIL only though the agreement was for supply from CRL and under present operating condition it was not possible to supply CRL gas to the Sonari Tea Gas Grid. The Government reply indicated that the Company executed agreements with the consumers without keeping in view source of supply and its existing pipeline network.

Inventory management

2.1.25 Review conducted to ascertain the efficiency in inventory management system, revealed that the Company has not fixed minimum, maximum and reorder levels of stock for critical and high value inventory.

Stock Position

2.1.26 Table below shows the details of closing stock of inventory and its *percentage* to operating income for the last five years up to 2007-08.

Particulars	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**
	(Rupees in crore)				
Stores and Spares	5.88	9.32	7.65	6.82	8.06
Project stores	2.74	3.97	4.26	3.54	2.22
Stock with site offices	0.24	0.18	0.25	0.22	0.27
Stock with Compressor Dept.	Nil	0.16	0.16	0.16	NIL
Other stores	0.01	0.01	0.02	0.03	0.14
Total	**8.87**	**13.64**	**12.34**	**10.77**	**10.69**
Total Operating income	**45.85**	**47.80**	**63.88**	**74.89**	**77.72**
Percentage of inventory to operating income	19.35	28.54	19.32	14.38	13.75

From the table above it could be seen that there was a gradual improvement in inventory holding. In terms of *percentage* of inventory holding to operating income, it has come down from 28.54 *per cent* in 2004-05 to 13.75 *per cent* in 2007-08. The closing stock of inventory was Rs.10.69 crore as on 31 March 2008, consisted of steel pipes of different grades and sizes worth Rs.3.37 crore procured before 31 March 1994 (Rs.0.14 crore) during 1994-2004 (Rs.1.09 crore) and after 31 March 2004 (Rs.2.14 crore). However, the Company has not taken any action to identify and dispose of unserviceable or obsolete items of inventory.

In reply, the Government stated (October 2009) that necessary steps would be taken to improve the inventory management system.

Fund Management

2.1.27 The Company has been making cash profits consistently throughout the period of review. However, review conducted on the fund management of the Company revealed that the system needs to be further strengthened. The points observed are discussed in the following paragraphs.

Fund position

2.1.28 Table below shows the surplus funds kept in banks, interest earned on it, loans raised for execution of projects and interest paid on that for the last five years up to 2007-08.

Sl. No.	Particulars	2003-04	2004-05	2005-06	2006-07	2007-08
		(Rupees in crore)				
1	**Funds Available**					
	In SB/Current A/c	2.55	24.77	5.59	13.25	7.21
	In Fixed Deposits	44.71	47.08	80.96	88.39	78.91
	Total	**47.26**	**71.85**	**86.55**	**101.64**	**86.12**
2	Interest earned on deposits	3.23	2.52	3.41	5.79	6.72
3	Loans outstanding	31.61	93.79	115.76	108.19	71.35
4	Interest paid on Loans	2.03	2.65	6.29	8.41	8.47

Idling of surplus funds

Failure of the Company in parking surplus funds in short-term deposits has resulted in a loss of Rs.1.34 crore.

2.1.29 The Company has been maintaining 29 current accounts with 11 banks for the requirement of Head office and Gas Grid offices. On scrutiny of the daily bank balances as per the cash book for the last five years upto 2008-09 revealed that huge amounts ranging from Rs.0.10 crore to Rs.15 crore have been lying idle in the current accounts after meeting all expenses. Had the Company planned its financial requirements prudently, it could have invested these idle amounts in short/long term deposits. The interest foregone during the five years up to 2008-09 due to failure to invest surplus funds in Term Deposits of at least 90 days each, worked out to Rs.1.34 crore.

The Government stated (October 2009) that sufficient fund is required to be maintained at both the head office and outstation offices to meet various payments. The reply is not convincing as the minimum deposits that could have been made was arrived at by taking into consideration the minimum cash balance that remained after meeting all the expenditure through out the quarter. However, the Company agreed to introduce an effective system to minimise idling of funds.

Avoidable loans

The Company availed high interest bearing loans for executing capital works and suffered a loss of Rs.2.19 crore.

2.1.30 During March 2004 to October 2006, the Company had availed bank loans of Rs.113 crore from two banks for implementing three projects, namely Jorhat-Golaghat Gas Grid, BVFCL revamping and APGCL revamping at varying interest rates of 7.35 *per cent* to 10.85 *per cent* per annum. During the corresponding period, when these loans were availed, the Company was maintaining fixed deposits ranging from Rs.44 crore to Rs.88 crore earning interest at the rates of 5.25 *per cent* to 9.50 *per cent* per annum. A scrutiny of the fund position *vis-à-vis* the loans availed revealed that it could have avoided loan of Rs.25 crore taken (March 2004 to March 2005) for APGCL revamping project and Rs.27 crore out of total loan of Rs.42 crore taken (March 2005 to October 2006) for Jorhat-Golaghat Gas Grid project by utilising the fixed deposit carrying lower interest. Thus, the Company could have saved Rs.2.19 crore on payment of interest.

The Government stated (October 2009) that the Company opted for the loans to keep a safe liquidity position. The reply is not convincing, as the payback period of the projects was on an average five years only.

Excess interest charged by UCO Bank

Loans availed at fixed rate was charged at a higher rate by the bank and caused loss of Rs.2.19 crore.

2.1.31 The Company availed (March 2005) two loans of Rs.28 crore and Rs.18 crore from UCO bank for Jorhat-Golaghat Gas Grid projects and revamping the BVFCL at fixed interest rate of 7.35 *per cent* per annum. On scrutiny of the records, it was found that the bank has been charging interest at much higher rates ranging from 8.35 *per cent* to 10.85 *per cent per annum*. The total amount of excess interest charged by the bank worked out to Rs.2.19 crore and the Company failed to take appropriate action against excess levy of interest. The standing instruction for debiting instalment and interest on the current account was withdrawn by the Company after a period of 18 months (December 2008) from the date (June 2007) when the bank started charging the excess interest above the agreed rate.

The Government in its reply accepted the fact and stated (October 2009) that the Company has already taken up the matter with the regional office as well as head office of the Bank. It was also decided to take up the matter with the Banking Ombudsman of the Reserve Bank of India.

Avoidable payment of penal interest

2.1.32 In spite of having sufficient funds in various current accounts, the Company sustained a loss of Rs.11 lakh by way of penal interest charged by the UCO bank on two loan accounts namely, Jorhat-Golaghat Project (Loan of Rs.28 crore) and BVFCL Phase–II Project (Loan of Rs.18 crore) due to delayed payment of principal and interest thereon. The Government stated (October 2009) that it has taken up the matter with the Branch Manager for waival of penal interest.

Failure to collect TDS certificates

The Company sustained a loss of Rs.0.58 crore due to failure to submit TDS certificates.

2.1.33 The consumers and bankers of the Company deducted an amount of Rs.1.15 crore as on 31 March 2006 towards TDS on transportation charges and interest on fixed deposits. In December 2008, when the income tax assessment for the financial year 2005-06 was finalised, the Company could produce TDS certificates for Rs.0.57 crore only including certificates worth Rs.0.21 crore returned for rectification. Even after allowing the defective certificates, the Company has suffered a loss of Rs.0.58 crore due to failure to collect and submit TDS certificates for the period upto 2005-06 within the time limit. Further, the Company has not maintained any basic records showing details of TDS and no monitoring system exists for timely collection and remittance of TDS certificates.

The Government stated (October 2009) that the tax credit for Rs.0.59 crore in respect of TDS Certificates originally submitted along with the Income Tax Return for the assessment year 2006-07 (Financial Year 2005-06) was completely overlooked by the Tax Department and the matter was taken up for rectification. However, the Company failed to furnish the details of submission of the TDS certificates. It has also agreed to take steps to monitor timely collection of TDS certificates to avoid loss of tax credit.

Internal Audit and Internal Control

2.1.34 The Company has no separate and independent internal audit wing, directly reporting to the Managing Director. The internal audit functions are being carried out by the Deputy General Manager (Finance) with the assistance of four Senior Accountants. Pre-checking of payments above Rs.10,000 and post payment vouching of all transactions are covered under their scope. Scrutiny of the present system of internal audit and internal control indicated the following:

- No system of regular reporting to management.
- None of the ten gas grid offices of the Company located at various districts of Upper Assam was subject to Internal Audit.
- No metering system at the off-take point of 18 gas grids out of 21 and as a result, quantity reconciliation of gas received by each grid with their sales figure becomes impossible.
- The Company has not formed separate wing for periodical field inspection at the consumer’s premises including tea estates, domestic and commercial categories. Instead, inspection on random basis has been done deputing officers from different departments.
- No metering system to measure quantity of natural gas consumed by 96 *per cent* of domestic consumers.
- No reconciliation of remittances made by consumers towards TC and Gas bills to the gas grid offices with actual remittances as per bank statements.
- No reconciliation of the remittances made by the grid offices to head office with that of the accounts maintained by head office.

Acknowledgement

Audit acknowledges the cooperation and assistance extended by different levels of management while conducting the performance review.

The matter was reported to the Government and Management in July 2009 and their replies were incorporated under relevant topics.

Conclusion

The Company has earned profit in all the years under review, however, in the following areas it is deficient.

- ***On purchase of natural gas from the private producer, the Company incurred an avoidable expenditure of Rs.8.63 crore.***
- ***After adding four compressors at a cost of Rs.20.19 crore to the existing six compressors, the actual utilisation increased from two to three compressors only.***
- ***Gas supply system to three out of six major industrial consumers was revamped at a total cost of Rs.75.42 crore and due to creation of excess capacity than the actual requirement, the Company incurred an avoidable expenditure of Rs.20.24 crore.***
- ***The Company has levied excess TC of Rs.21.60 crore on four out of six industrial consumers.***
- ***In view of the fact that there was no scope for any physical loss or gain of gas in the pipeline transportation, quantity of gas billed in excess by 50.31 MMSCM valued at Rs.10.99 crore from non -industrial consumers lacks justification.***
- ***The Company has suffered a loss of Rs.5.83 crore due to failure to invest surplus funds in term deposits, excess interest charged by the bank on loans, payment of interest on avoidable loans etc.***
- ***Internal Audit and Internal Control system is deficient in respect of reporting to Management, audit coverage, reconciliation of field office accounts with Head office etc.***

Recommendations

The State Government/ Company should consider:

- ***To ensure economy in purchase of natural gas and that the Government of India guidelines and notifications are followed while trading in natural gas.***
- ***To find out more demand for HP and LP gas to utilise excess capacity created in compressor station and pipeline network.***
- ***To adopt a scientific and uniform method of fixation of TC and gas billing system.***
- ***To follow prudent financial management policies.***
- ***To strengthen the internal audit wing.***