CHAPTER II

Performance audit of Government Companies

Punjab State Grains Procurement Corporation Limited

2.1 Procurement, Storage and Delivery of Wheat

Executive Summary

The Punjab State Grains Procurement Corporation Limited (Company) was incorporated on 10 March 2003 and it is one of the five State procuring agencies entrusted with procurement of foodgrains such as wheat and paddy for the central pool. Performance audit of procurement, storage and delivery of wheat by the Company was taken up in the context of food security, wastage of grains, shortage of storage facilities and other risks including persistent loss incurred by the Company. Eight out of twenty district offices of the Company were selected for detailed check on the basis of Statistical Sampling. The audit findings are summarised below:

(I) Financial Management

The Company was not able to recover its cost of operations. The accumulated losses of the Company increased year after year. The accumulated losses increased by 196.20 per cent from ₹ 269.27 crore in 2006-07 to ₹ 797.57 crore in 2009-10, mainly due to high incidence of interest payments, failure to get reimbursement of all elements of the cost and delay in claiming the incidental charges from FCI.

(II) Procurement of wheat

The Company procured 75.76 LMT wheat at the cost of ₹7,191.45 crore during 2006-11. Wheat procurement was less than the targets during the audit period. The Company had not devised proper system to ensure that all the elements of cost were included in the claims.

(III) Storage of wheat

The Company had neither ensured storage of wheat in covered godowns/on scientific plinths nor evolved any mechanism to ensure timely hiring of plinths of prescribed specifications. The Company also failed to get the storage space thoroughly cleaned and disinfested before storage of wheat procured leaving to deterioration in the quality of stored foodgrains.

(i) Damage and storage of wheat stock

Against the total storage requirements, the shortfall in covered storage capacity ranged between 66.25 (2006-07) and 82.64 (2010-11) per cent. Resultantly, the Company had to resort to store the wheat in open which led to deterioration of stocks. 18,272 MT of wheat costing ₹ 18.41 crore was damaged due to improper storage. Shortages of 3,480.81 MT of wheat costing ₹ 3.74 crore were also noticed. However, the Management failed to finalise the departmental actions against the officers concerned even after lapse of three to five years of detection of shortages.

(ii) Short accountal of storage gain

The district offices, Patiala and Ferozepur did not pass on the required storage gain and in lieu of that the FCI had deducted ₹ 1.66 crore from the sale bills of wheat. Non passing of storage gain smacks of pilferage by the officials. However, the Company had neither recovered the amount from the officials responsible nor initiated any action to fix the responsibility of delinquent officials.

(IV) Delivery of wheat to FCI

The Company was put to huge financial losses due to either delay or non raising of claims on the FCI/State Government.

(i) Delay in preparation of sale bills

During 2006-11, there were delays of one to 125 days in submission of the dispatch documents which led to delay in submission of bills and subsequent realisation of dues from FCI, resulting in loss of interest of ₹1.51 crore.

(ii) Non claiming of interest on delayed payments

FCI was required to make payments within 24 hours of the presentation of the sale bills. Though, there were delays up to 226 days in receipt of payments from FCI, the Company did not raise interest claims of ₹4.01 crore on delayed payments by FCI.

(iii) Non claiming of cost of polypropylene bags

Due to non fixation of rates of PP bags in the provisional rates for the crop year 2010-11, the Company did not claim cost of 40.87 lakh PP bags used for delivery of wheat to FCI during the crop year 2010-11 even at the rates of previous year which resulted in non-recovery of ₹5.66 crore.

(iv) Non reimbursement of interest charges for wheat directly delivered from mandis

The Company failed to take up the matter with GOI resulting in non reimbursement of interest charges of ₹ 3.33 crore in respect of 13.53 lakh MTs of wheat directly delivered from the mandis.

(v) Delayed/less/non raising of claims of incidental charges

Delayed/less/non raising of claims of incidental charges resulted in loss of interest of ₹1.73 crore.

(vi) Avoidable payment of infrastructure development (ID) cess

Despite specific instructions not to deposit ID cess in respect of wheat required under Above Poverty Line scheme of Targeted Public Distribution System, eight selected district offices of the Company deposited ₹2.81 crore during August 2009 to February 2010 on account of ID cess which has not yet been recovered from FCI (March 2011).

(vii) Transportation of wheat

The contracts for transportation of wheat from mandis to storage points were awarded on the basis of rates per quintal basis and no weightage was given to the distance involved. The fixation of rates with reference to per quintal instead of per quintal per kilometer resulted in extra expenditure of ₹ 19.09 crore during 2006-11.

Conclusion and Recommendations

The performance of the Company with regard to procurement, storage and delivery of wheat was sub-optimal due to inadequate covered storage capacity and non devising of a system to analyse the rates fixed by GOI to ensure that all elements of its cost are reimbursed. There was no effective system to ensure timely raising of sale bills to FCI. The Company has not finalised the actions against persons responsible for damages and shortages of wheat even after lapse of 3 to 5 years. The accumulated losses of the Company increased year after year and it failed to identify the loss making areas for taking corrective measures.

We have made seven recommendations to improve the working of the Company. Setting up of the infrastructure for covered storage of wheat in the State, devising a regular system to ensure that all elements of its legitimate cost are reimbursed by GOI, finalisation of the departmental action for damages and shortages of wheat stocks, timely raising of bills of various incidental charges with FCI etc. are some of the recommendations.

Introduction

2.1.1 The Punjab State Grains Procurement Corporation Limited (Company) was incorporated on 10 March 2003 with the main objective of procurement, storage and delivery of foodgrains such as wheat and rice for the central pool. It commenced the business in April 2003 after taking over the activities from Food and Supplies Department of the State Government.

The Company is one of the five[♣] State procuring agencies entrusted with procurement of foodgrains in the State and its share was 16.71 *per cent* of wheat and 31.50 *per cent* of paddy procured in the State during the year 2010-11. The procurement business of the Company during 2010-11 was ₹ 6,073.50 crore, of which paddy procurement was ₹ 4,195.80 crore (69.08 *per cent*) and ₹ 1,877.70 crore (30.92 *per cent*) of wheat procurement. The activity of the Company relating to procurement of paddy had been examined and incorporated in the Report of the Comptroller and Auditor General of India for the year 2007-08 (Commercial), Government of Punjab. The review is yet to be discussed in the Committee on Public Undertakings (August 2011).

The Company had procured 75.76 LMT[♥] of wheat at the cost of ₹ 7,191.45[∂] crore during 2006-11. The Company was not able to recover its cost of operations and had been incurring losses. The accumulated losses of the Company increased year after year. Therefore, it was considered necessary to undertake performance audit of procurement of wheat by the Company in the context of food security, wastage of grains, shortage of storage facilities and other risks including persistent loss incurred by the Company.

Organisational set up

2.1.2 The Management of the Company is vested in a Board of Directors (BOD). As on 31 March 2011, the BOD comprised seven directors, all nominated by the State Government. The Director, Food, Civil Supplies & Consumer Affairs Department (F&SD), Government of Punjab, is the *ex-officio* Managing Director of the Company. The Managing Director is the Chief Executive who is assisted by the Director (Finance) and the Executive Director at Head office and District Managers in the field. There are twenty District offices, each one headed by a District Manager except four[*] District Offices which are headed by two District Managers each due to voluminous activities in those districts. Each District manager is assisted by Deputy District Manager, field officers and inspectors.

[♣] Punjab State Grains Procurement Corporation Limited, Punjab Agro Foodgrains Corporation Limited, Punjab State Warehousing Corporation, Punjab State Civil Supplies Corporation Limited and Punjab State Cooperative, Supply & Marketing Federation Limited.

[♥] Lakh metric tonne.

[∂] Cost worked out at the rate of minimum support price.

[*] Patiala, Ludhiana, Sangrur and Gurdaspur.

Scope and Methodology of Audit

2.1.3 The present performance audit conducted between November 2010 to May 2011 covers the procurement of wheat by the Company during the period from 2006-07 to 2010-11. The audit mainly deals with procurement, storage, transport and delivery of wheat by the Company. The audit examination involved scrutiny of records at the Head Office and eight[∝] out of the twenty district offices selected on the basis of Statistical Sampling, Probability Proportional to size technique, which covered 56.09 *per cent* of the total wheat procured by the Company during 2006-11.

The methodology adopted for attaining the audit objectives consisted of explaining audit objectives and audit criteria to the top management, scrutiny of records at the Head Office and selected district offices, interaction with the auditee personnel, analysis of data with reference to audit criteria, raising of audit queries, discussion of audit findings with the Management and issue of draft performance audit report to the Management for comments.

Audit Objectives

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

- functions relating to procurement, storage, transport and delivery of wheat were executed in efficient, effective and economical manner and as per the prescribed procedures;
- the Company raised the bills for reimbursement of the amount within the stipulated period and in accordance with the rates fixed by Government of India;
- the cash credit availed by the Company was utilised efficiently and economically;
- reimbursement of all the elements of cost and statutory levies imposed by the State Government have been received by the Company from Food Corporation of India; and
- the internal control mechanism and internal audit system in the Company were adequate and effective.

Audit Criteria

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

- Procurement Policy of the State Government;

[∝] Amritsar, Faridkot, Ferozepur, Kapurthala, Ludhiana, Mansa, Patiala and Sangrur.

- Targets fixed for procurement of wheat;
- Guidelines/Instructions issued by FCI/State Government for safe storage of wheat;
- Movement Plans framed/issued by FCI from time to time;
- Norms prescribed by the GOI/FCI/State Government/Company for raising of bills after delivery of wheat and other related expenses;
- Terms and conditions of handling and transport contracts; and
- Rules/ guidelines issued by Government of Punjab.

Audit Findings

2.1.6 We explained the audit objectives to the Company during an 'Entry Conference' held on 17 January 2011. Subsequently, audit findings were reported to the Company and the State Government in June 2011 and discussed in an 'exit conference' held on 14 September 2011. The Company also replied to audit findings in September 2011. The views expressed by them have been considered and suitably incorporated while finalising this performance audit report.

The whole process of procurement, storage and delivery of wheat and role of the Company, State Government, GOI and FCI is shown in the following chart.



The incidental charges include statutory charges, *mandi* labour charges, agents commission, transportation / handling charges, custody and maintenance charges and interest charges, bonus[Ψ], cost of gunny bags and carry over

[Ψ] Bonus is an incentive over and above the minimum support price of wheat, declared by GOI from time to time which also forms part of the incidental charges, if specifically provided in the GOI rates.

charges which include inventory carrying cost and storage charges for the wheat delivered to FCI after 30 June of each crop year.

The audit findings are discussed in the subsequent paragraphs:

Financial Management

Financial Position and Working Results

2.1.7 The Company has finalised its accounts upto 2008-09 and the accounts of the Company for the years 2009-10 and 2010-11 were in arrear. The financial position and working results during the last four years ended 31 March 2010[3] are given in ***Annexure-7***.

The accumulated losses of the Company increased by 196.20 *per cent* from ₹ 269.27 crore in 2006-07 to ₹ 797.57 crore in 2009-10.

It may be seen from the annexure that the Company was not able to recover its cost of operations. The accumulated losses increased year after year. The accumulated losses of the Company increased by 196.20 *per cent* from ₹ 269.27 crore in 2006-07 to ₹ 797.57 crore in 2009-10. This was mainly due to high incidence of interest paid on cash credit availed for procurement activities which increased from ₹ 108.62 crore in 2006-07 to ₹ 558.14 crore in 2009-10, failure to get reimbursement of all elements of the cost and delay in claiming the charges from FCI as discussed in the succeeding paragraphs.

The Company had not maintained the working results for procurement of wheat and paddy separately. In the absence thereof, the Company was unable to identify the extent to which the loss was attributable to procurement of wheat or paddy. There is a need to keep distinct sectoral account for effective control of cost.

Availing of cash credit

2.1.8 The Company keeping in view the wheat procurement targets, sends proposals to the Reserve Bank of India (RBI) through the State Government for sanction of cash credit (CC) limit for procurement of wheat. The CC limit is availed on the basis of actual procurement of wheat. After getting approval from the RBI, the State Bank of India (SBI) releases the CC against hypothecation of the wheat stocks and guarantee given by the State Government. According to the agreement with SBI for availing CC, the outstanding amount in the CC account should be fully matched with the value of hypothecated stock of wheat failing which the Company was liable to pay additional (penal) interest at the rate of two *per cent* per annum on the amount not backed by the stock.

We observed that the Company failed to comply with the aforesaid stipulation. The gap between the closing stock of wheat and the outstanding CC amount ranged between ₹ 0.62 crore and ₹ 506.88 crore during 2006-11, resulting in payment of additional/penal interest of ₹ 42.75 lakh during 2007-11. The mismatch between the outstanding CC and the closing stock of wheat could

[3] Accounts for the year 2009-10 are provisional.

have been minimised by proper monitoring, timely realisation of dues from FCI to repay the CC and optimum availing of the CC from banks.

The Management, while admitting the facts, stated (September 2011) that efforts were being made to get the amount of penal interest adjusted against outstanding balances. The fact, however, remains that penal interest has been levied by the bank as per terms and conditions of the agreement and chances of adjustment/ waiver of the same are bleak.

Guarantee fee

2.1.9 The CC limit was availed in accordance with requirement of fund assessed on the basis of minimum support price (MSP), *mandi* charges, handling charges, cost of gunny bags etc. The guarantee fee is paid by the Company to the Government as per the terms of the State Government i.e. at the rate of 1/8 *per cent* of CC availed, whereas the guarantee fee applicable on the borrowing of CC for payment of the MSP only is reimbursed by FCI and the gap remains unrecovered.

Reimbursement of guarantee fee by FCI on CC for payment of MSP only instead of on CC limit availed on the basis of MSP, *mandi* charges, handling charges, cost of gunny bags etc. led to an unbridged gap of ₹ 1.70 crore.

Our scrutiny revealed that as against the guarantee fee of ₹ 10.69 crore paid by the Company to the State Government for the crop years* 2006-11, the portion of guarantee fee reimbursed/reimbursable by FCI was ₹ 8.99 crore only (i.e. the fee applicable on the CC availed for payment of the MSP). Thus, there was an unbridged gap of ₹ 1.70 crore to the Company. Further, the guarantee fee is paid to the State Government at the time of procurement of wheat and availing of the CC. FCI reimburses the guarantee fee after the stock of wheat are actually delivered by the Company to FCI and for the intervening period, there is no provision to compensate the Company. We observed that the Company had not taken up the matter with GOI through State Government to compensate the loss of interest during the intervening period.

The Management while admitting the facts stated (September 2011) that matter has been taken up with GOI to reimburse guarantee fee on actual basis.

Procurement of wheat

2.1.10 The Company procures wheat from various *mandis* allocated by Food, Civil Supplies & Consumer Affairs Department (F&SD) of the State at the MSP fixed by GOI in each crop year. The State Government issues Procurement Policy before commencement of every procurement season. In procurement policy, MSP (fixed by GOI), share/ targets for each procuring agency, procurement procedure, arrangement to be made by the different Government agencies viz. Mandi Board, F&SD etc. are mentioned. Each agency involved in procurement was required to comply with the instructions/ directions issued in the Procurement policy. To facilitate procurement of wheat the State Government establishes various *mandis*. The farmers bring wheat in *mandis* and stock offered by the farmers at *mandis* are purchased by

* Wheat procurement season starting from the month of April to the month of June every year.

the procuring agencies at MSP. The procurement is monitored on day to day basis by the procuring agencies at Head office and district office level and also by the F&SD.

Procurement targets and achievements

2.1.11 The production of foodgrains for the Rabi & Kharif crops and their estimated arrival in the *mandis* for sale is estimated by the Agriculture Department and the agency wise procurement targets are fixed by the F&SD of the State Government. The targets for procurement of wheat and actual procurement thereagainst made by the Company during five years period from 2006-07 to 2010-11 were as under:

Crop year	Targeted share of the Company's procurement in the State		Total quantity procured by all the procuring agencies	Actual quantity procurement by the Company		Shortfall of the Company in procurement against the targets	
	LMT	Per cent	LMT	LMT	Per cent	LMT	Per cent
2006-07	20.00	20	69.52	10.58	15.22	9.42	47.10
2007-08	21.60	24	72.07	12.79	17.75	8.81	40.79
2008-09	23.10	22	102.50	18.47	18.02	4.63	20.04
2009-10	23.00	20	109.94	16.85	15.33	6.15	26.74
2010-11	23.00	20	102.18	17.07	16.71	5.93	25.78
Total	**110.70**		**456.21**	**75.76**		**34.94**	

The above table revealed that the quantity of wheat procured by the Company was less than the targets by 20.04 to 47.10 *per cent* during 2006-11. We, however, observed that fixation of targets was not done on realistic basis. The targets were fixed ignoring the Agriculture Department's assessment of arrival of wheat in the market and also without considering the quantity to be procured by the traders.

Inadequate Quality Assurance System

2.1.12 Moisture content is one of the most important factors in the maintenance of quality as well as purchase of foodgrains. Moisture is required to be determined every time a consignment is received or dispatched for consumption or storage. If moisture content goes above certain levels, there is a danger of undesirable developments taking place due to physiological processes within grain resulting in deterioration of quality, sometime in total damage. As per the guidelines on "Procurement, preservation and scientific storage of Foodgrains" issued by the Institute of Food Security of FCI and in order to ensure procurement of wheat of the specified quality, the staff of the Company at *mandis* were required to be well equipped with proper quality testing equipments. As per procurement policy of the State Government, moisture meters were to be used for checking the moisture content of wheat in heaps and correct calibration of these meters was to be ensured before commencement of the procurement season. During scrutiny of records of eight selected district offices, we observed that the Company had provided only 5 to 61 working moisture meters to the 193 *mandis* in these districts during

2006-11, which were grossly insufficient to record the moisture content of wheat at the time of procurement.

We further observed that scientific storage practices like measuring and recording the moisture content of the wheat at the time of procurement in the receipt register, during storage in stock register and at the time of delivery in the issue register as adopted by FCI were not followed by the Company resulting in non-accounting of accurate storage gain in the wheat due to moisture content.

The Management stated (September 2011) that the market committee provides moisture meters in *mandis* to check the moisture content in the foodgrains. It further stated that the Company is also planning to purchase some more moisture meters which are to be delivered to the field offices for further distribution in the *mandis*. The fact, however, remains that the Company failed to ensure adequate quality assurance system at the time of procurement, storage and delivery of wheat for measuring its moisture contents as per scientific storage practices.

Fixation of rates

2.1.13 In each crop year, GOI fixes the provisional rates of wheat to be procured by the State procuring agencies for the central pool. The rates provided that the claim for final incidental charges alongwith the audited accounts, documentary proof and detailed justification for each item should be submitted at the earliest after the end of the procurement season. The Company was required to ensure that all the elements of cost were included in the claims lodged with FCI to recover its cost of operations.

Non inclusion of forwarding charges, road delivery charges and administrative charges in provisional rates, deprived the Company of claiming ₹ 158.38 crore from FCI.

In the provisional rates for the crop year 2006-07 forwarding charges[⊕] at the rate of ₹ 2.33 per quintal, road delivery charges at the rate of ₹ 2.52 per quintal in respect of wheat directly delivered from *mandis* to FCI local godowns and administrative charges at the rate of 2.50 *per cent* of MSP were included and allowed to the Company. We observed that these elements of cost were not considered by GOI while fixing the rates for the subsequent crop years 2007-11, resultantly, the Company was deprived of the claim of ₹ 158.38 crore[♣] from FCI i.e. ₹ 13.40 crore on account of forwarding charges, ₹ 141.57 crore on account of administrative charges and ₹ 3.41 crore on account of road delivery charges.

As the Company had not devised proper system to analyse all elements of the cost of wheat included in the provisional rates, it could not take up the matter

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⊕ These include expenditure incurred on loading into trucks, stacking, restacking of wheat, collection of spillage and sweepage in the godowns, refilling of the bags and weighment of sweepage collected.

♣ Forwarding charges calculated at the rate of ₹ 2.33 per quintal , administrative charges calculated at the rate of 2.50 *per cent* of MSP of respective year on the 57.50 LMT wheat delivered to FCI during 2007-08 to 2010-11 and road delivery charges are calculated at the rate of ₹ 2.52 per quintal on the 13.52 LMT wheat directly delivered from *mandis* to FCI during 2007-08 to 2010-11.

with F&SD/ GOI for inclusion of the above mentioned elements in the provisional /final rates.

The Management stated (September 2011) that the rates from RMS 2005-06 onwards have not yet been finalised by GOI. All the points raised in audit would be taken up with GOI at the time of finalisation of incidental charges of the respective years. It was also stated that the provisional rates received at the time of procurement are finalised after submission of audited balance sheets alongwith the item wise expenditure. The Management's contention is not acceptable as the matter regarding inclusion of the above elements in the provisional rates should have been taken up immediately with GOI to avoid loss of interest on funds invested.

Non lodging of claims against damaged gunny bags

2.1.14 The gunny bales are procured by F&SD through Director General of Supplies and Disposal (DGS&D), Kolkata under Essential Commodities Act, 1955. On the basis of expected purchase of wheat, F&SD places consolidated indent on behalf of all the State procuring agencies with the DGS&D, Kolkata for procurement of gunny bags. The field offices are required to carry out inspection of the gunny bags at their end on receipt of the gunny bags and claims, if any, regarding damaged gunny bags are required to be lodged with the DGS&D within six months of despatch of the gunny bags.

The Company failed to lodge claims of damaged gunny bags valuing ₹ 1.22 crore.

We observed that the Company has not evolved any system to ensure timely inspection of gunny bales, recording of reasons of damage, lodging of claims and proper follow up for settlement of claims. Scrutiny of the records relating to the procurement of gunny bags in five[β] district offices revealed that 5.57 lakh damaged gunny bags valued at ₹ 1.33 crore received during 2006-11 were lying in these district offices at the end of March 2011. No claim had been lodged (except in Patiala district office for ₹ 10.89 lakh) even after a period of one to five years. The Company had not taken (May 2011) any action against the officers who failed to lodge the claims.

The Management stated (September 2011) that the field offices are regularly lodging claims against damaged gunny bales. The reply is not based on facts as there was nothing on record to substantiate the reply.

Storage of wheat

Storage planning

2.1.15 As per instructions of FCI (April 2006) the wheat procured is required to be stored preferably in covered godowns or in open storage space if covered storage space is not available. The foodgrains are to be preserved by following all scientific norms for its safe storage and by taking all action for proper storage of stocks. The State Government from time to time issued instructions

[β] Faridkot, Ferozepur, Ludhiana, Mansa and Patiala.

regarding hiring of storage space (godowns/plinths) for safe storage of foodgrains. As per the instructions (February 2004), the District Managers were required to make complete assessment of available storage capacities in the district and ensure hiring of storage space as per requirements before start of the procurement season. Hiring of unscientific storage capacity should be resorted to only when scientific storage space is not available. As per instructions of FCI, the storage space is required to be thoroughly cleaned and disinfested before storage of the wheat procured.

We observed that the Company had not ensured storage of wheat in covered godowns/ on scientific plinths and resorted to store the wheat in *mandi* yards, sugar mills, rice mills and on plain floor by using double crates. Further, the Company did not evolve any mechanism to ensure timely hiring of plinths of prescribed specifications. The proper cleaning and disinfestation of storage space before storage of wheat procured was also not ensured.

During examination of storage of wheat, the following shortcomings were observed:

Inadequacy of proper storage

2.1.16 The table below shows year-wise storage requirement of the Company, available covered storage capacity and shortfall during 2006-11.

(in lakh MT)

Sl. No.	Particular	2006-07	2007-08	2008-09	2009-10	2010-11
(i)	Wheat procured	10.58	12.79	18.47	16.85	17.07
(ii)	Direct Delivery of wheat from mandis	5.04	4.95	4.00	2.42	2.15
(iii)	Wheat stored/ storage requirement (i-ii)	5.54	7.84	14.47	14.43	14.92
(iv)	Available covered storage capacity	1.87	1.80	2.96	2.97	2.59
(v)	Shortfall of covered capacity (iii-iv)	3.67	6.04	11.51	11.46	12.33
(vi)	Percentage of shortfall of covered storage capacity (v / iii x 100)	66.25	77.04	79.54	79.42	82.64
(vii)	Wheat delivered	10.53	12.74	18.30	16.54	9.92
(viii)	Closing stock of wheat (i-vii) (Position as on 31 March 2011)	0.05	0.05	0.17	0.31	7.15

The percentage of shortfall of covered storage capacity ranged between 66.25 and 82.64 during 2006-11

The above table shows that the percentage of shortfall of covered storage capacity increased from 66.25 in 2006-07 to 82.64 in 2010-11. The availability of covered storage capacity was highly inadequate to cater to the storage requirement and the Company predominantly relied on open storage space. The storage of wheat in open leads to deterioration of stocks.

Inadequate quality control during storage

2.1.17 Maintenance of quality and safety standards is of utmost importance in the storage of wheat. In order to ensure safe and damage free storage of wheat, the godowns should be leak proof, free from dampness, cracks, termites and there should be no unwanted vegetation around the godown. The damaged stock should be stored in a separate shed and immediate quality control and other remedial measures be taken. The stocks should be periodically inspected and stack-wise record should be maintained to show progressive condition of grain, degree of deterioration and infestation etc. Appropriate remedial measures are required to be taken to maintain the quality of health of stock by way of fumigation.

We observed that there was no adequate quality control mechanism in the Company to ensure safety of wheat stock through implementation of above mentioned quality control measures. The instances of unwanted vegetation around the godowns, inadequate fumigation and delay in conducting physical verification were noticed in Audit. Further, no stack-wise record indicating condition of grain, degree of deterioration etc has been maintained. Separate storage of damaged wheat was also not ensured which resulted in damage to other stocks also as discussed in the succeeding paragraphs.

Adequate quality control mechanism was not followed to ensure safety of wheat stock.

Wheat stacked on open kutcha plinth at Sirhind (Fatehgarh Sahib)



Damage of wheat stock due to improper storage

2.1.18 The person incharge of the godown/plinth (godown/plinth incharge) of the Company was responsible to maintain the quality and quantity of wheat stocks stored till their delivery to FCI. The District Manager and field officer of the district office were required to inspect every storage centre under their control and the godown incharge was to send fortnightly reports regarding condition of the wheat stocks to the district office for onward submission to the Head office of the Company. We observed that 18,272 MT of wheat costing ₹ 18.41 crore (crop year 2006-07: 5,345 MT valuing ₹ 4.23 crore, crop year 2007-08: 5,243 MT valuing ₹ 5.17 crore and crop year 2008-09: 7,684 MT valuing ₹ 9.01 crore) was damaged at Chabbal and Rampuraphul centres of Amritsar and Bathinda district offices, respectively due to improper storage of wheat as detailed below:

18,272 MT of wheat costing ₹ 18.41 crore damaged due to improper storage.

- The District office, Amritsar stored (April-May 2006) 5,28,557 bags (26,511 MT) of wheat of the crop year 2006-07 at Chabbal centre. On inspection (July 2006) by the field officer, it was observed that the wheat

stocks of the centre was infected by insects. Thereafter, FCI also found (January 2007) these stocks were unfit for consumption. It was noticed that the wheat stock of the crop year 2006-07 were damaged within three months of their storage due to their storage with stock of wheat of the crop year 2005-06, which was already damaged. After segregation, 4,21,662 bags of wheat were issued (upto August 2008) and the remaining 1,06,895 bags weighing 5,345 MT have not been disposed off (March 2011). Thus, failure of the plinth incharge to keep the good wheat stock separately from the already infected wheat stock resulted in damage of wheat valuing ₹ 4.23 crore[ϰ]. In addition, the Company had to bear carry over charges of ₹ 2.65 crore due to prolonged storage. The Company had issued (August 2008) chargesheets to the concerned officials and departmental enquiry was initiated (December 2008), but it failed to finalise the proceedings even after the lapse of more than two years and seven months (March 2011) since issue of the chargesheets. It was further noticed that despite damage to huge wheat stock, the curative measure of adequate fumigation on the available sound wheat stock were not ensured by the Company.

The Management, while admitting the facts, stated (September 2011) that the disciplinary action has been taken against the delinquent officials and strict instructions have been issued to finalise the disciplinary proceedings in a time bound manner. However, the Management has not offered any comment about the curative measures of adequate fumigation to avoid recurrence of such incidents.

- The District Manager, Bathinda observed (July 2008) that wheat of the crop year 2007-08 was lying scattered from the bags due to improper maintenance of stocks by the field staff at Rampuraphul centre. The Chief Analyst of FCI also visited that centre on 20 July 2009 and found that the stacks were affected due to rain and advised culphas treatment[ξ]. Despite repeated instructions issued (July 2008 to July 2009) by the District Office as well as the Circle office/ Chief Analyst regarding improper maintenance of the wheat stocks, the stocks remained uncovered, scattered and without culphas treatment. FCI declared (December 2008) 5,243 MT of stocks of the crop year 2007-08 and 7,684 MT of the crop year 2008-09 as damaged. We observed that wheat was damaged due to non exercising of proper care/ maintenance by the concerned staff/ plinth incharge. The health reports of wheat stocks were not furnished by the inspector incharge to the District Manager. Despite the wheat stock of the crop year 2007-08 i.e. 5,243 MT valuing ₹ 5.17 crore was already damaged, the wheat stock of the crop year 2008-09 i.e. 7,684 MT valuing ₹ 9.01 crore was stacked in the same open plinth resulting in damage of this stock also. Though chargesheet against the persons responsible for damage of the stocks of crop year 2007-08 was issued in March 2010, final action has not been taken (March 2011). Further, no action was initiated against any officer for the damage of wheat stock of the crop year 2008-09 (March 2011).

ϰ Worked out at the rate of MSP + incidentals for the relevant crop year.

ξ It is a periodic curative treatment (using 9 gms of Aluminum Phosphide to treat one MT of wheat and three treatments in a year) given to the wheat stock to maintain its health.

The Management while admitting the facts in exit conference (September 2011) stated that the damage to wheat stock occurred due to negligence of field staff and chargesheets have been issued in this regard. Audit, however, observed that chargesheets were issued against the persons responsible for the damage of the stocks of crop year 2007-08. However, no action was initiated against any person for the damage of wheat stock of the crop year 2008-09.

Creation of additional storage capacity

2.1.19 In order to increase the warehousing capacity, GOI prepared (July 2008) a new scheme for construction of covered godowns on build, own and operate basis under a guarantee scheme (minimum guaranteed lease for a specified period) in which private sector participation was sought. The Company was nominated as nodal agency for creation of the storage capacity under this scheme in the State. Out of total 126 LMT of storage space shortage in the country, Punjab alone was having shortage of 71 LMT (56.35 *per cent*). Due to frequent changes in the terms and conditions of the scheme, the Company had to invite tenders thrice (September 2009 to June 2010) for creation of storage capacity of 67.49 LMT at 62 centres in the State. The last tender was opened in July 2010. Though, the Company got very good response for 101 LMT of storage capacity, it could finalise only for 13 LMT (April 2011) due to higher rate of ₹ 6.10 per month per quintal demanded by the tenderers against the maximum rate of ₹ 5.00 per month per quintal approved by the High Level Committee of GOI. Resultantly, the Company continues to resort to storage of wheat in the open.

The Management, while admitting the facts, stated (September 2011) that the Company is committed to increase the storage capacity. The work relating to construction of covered godowns is in progress and they have again called tenders on 26 August 2011 and technical bids have been opened for increasing covered capacity upto 22.71 lakh MT. Further developments were awaited.

Shortage of wheat stocks

2.1.20 In order to maintain the quantity of wheat stock and to avoid shortage in the wheat stored, the Company has a system of physical verification of stock at the interval of every six months. We noticed shortages of wheat stock of 3,480.81 MT valuing ₹ 3.74 crore during 2006-11 as indicated in the following table:

There were shortages of 3,480.81 MT of wheat valuing ₹ 3.74 crore during 2006-11.

Sl. No	Name of the District Office	Crop Year	Quantity of Shortages of wheat (MT)	Month and year when shortages were noticed	Value of shortages (₹ in lakh)
1	Ferozepur	1999-2002	2,604.46	June 2006 and February 2007	285.64
2.	Mansa	2002-03	227.20	November 2006	21.36
3	Amritsar	2005-06, 2006-07 and 2008-09	348.92	December 2006, July 2007 and January 2008	31.69
4	Ferozepur	2005-06 and 2007-08	169.79	2006-07 and 2007-08	14.71
5	Faridkot	2009-10	130.44	March 2011	20.65
Total			**3,480.81**		**374.05**

The audit analysis revealed that

- major shortages as mentioned above were noticed belatedly at the time of dispatch/ vacation of plinths. This shows that the prevalent system of physical verification of stock was inadequate and ineffective.

- except at Sl. No. 5 in all other cases mentioned above, the Management failed to fix accountability/responsibility even after 3 to 5 years of detection of the shortages.

The Management, while admitting the facts, in exit conference (September 2011) stated that responsibility of the delinquent officials will be fixed.

Short accounting of storage gain

2.1.21 During storage, wheat gains weight due to absorption of moisture which is called as storage gain. As per GOI's instructions (November 1999 & October 2003) and as per the approved rates for wheat, the storage gain was required to be passed on to FCI at the rate of one *per cent* and 0.7 *per cent* of the wheat stored in covered godown and open/cover and plinth (CAP), respectively at the time of delivery of wheat to FCI after 30 June of each year. Therefore, the Inspector/godown incharge was responsible to maintain the quantity of storage gain as per the norms fixed and to deliver the same to FCI alongwith delivery of wheat after 30 June each year.

During scrutiny of the records of Patiala and Ferozepur district offices of the Company, it was noticed that the field officers failed to pass on the requisite storage gain to FCI as per details given below:

- The District office, Patiala dispatched 16.73 lakh quintals of wheat valuing ₹ 220.01 crore between June 2007 and July 2010 of the crop years 2007-11 to FCI against which 11,998 quintals of storage gain was required to be passed on to FCI. As the District office did not pass on the requisite storage gain, FCI deducted ₹ 1.27 crore from the claims of the Company.

- In the District office, Ferozepur, FCI deducted (May 2005 to April 2007) ₹ 20.37 lakh (3,200.23 quintal) and ₹ 18.80 lakh (2,739.21

quintal) in the crop year 2005-06 and 2006-07 respectively, from the sale bills of wheat on account of non passing of the required storage gain, resulting in total financial loss of ₹ 39.17 lakh to the Company.

Despite heavy deductions of ₹ 1.66 crore on account of non passing of storage gain as per norms, the Company had not initiated any action to fix the responsibility of delinquent officials.

Heavy deductions of ₹ 1.66 crore, on account of non passing of storage gain as per norms, in the two District offices smacks of pilferage by the officials. The Company had neither recovered the amount from the officials responsible nor initiated any action to fix the responsibility of delinquent officials.

The Management stated (September 2011) that the deductions made by FCI on account of storage gain was recoverable from FCI/Staff and a report in this regard has been sought from concerned field offices. Further developments were awaited.

Delivery of wheat

2.1.22 The wheat is delivered to FCI as per their movement plan. After delivery of wheat, the concerned district office of the Company, on receipt of dispatch documents from its field officers, raises bills on FCI against the wheat delivered to them. Initially, the Company raises sale bills at the provisional rates fixed by GOI. On receipt of final rates from GOI, the Company raises supplementary bills for recovery of the differential amount, if any. The deficiencies noticed in this regard are discussed in the succeeding paragraphs:

Delay in preparation of sale bills

2.1.23 As per instructions issued (July 1985/September 1997/April 2008) by the Food & Supply Department of the State Government, the field officers were required to submit the dispatch documents of wheat stocks delivered to FCI to the district office within three days in the case of crop years 2006-08 and within seven days in the case of crop years 2008-09 and onwards. After processing the dispatch documents, the district offices were required to prepare the sale bills and submit them to FCI within one day from receipt of the dispatch documents.

In seven out of the eight selected district offices for the crop years 2008-11[†], out of 3,457 sale bills, 1,622 sale bills (46.92 *per cent*) were scrutinised by us. There were delays of one to 125 days (after allowing a margin of seven days) in submission of the dispatch documents by the field officers to the district offices in respect of 461 sale bills (28.42 *per cent* of the bills checked) involving amount of ₹ 0.27 lakh to ₹ 711.37 lakh. The delays led to loss of interest of ₹ 1.21 crore. The district office, Mansa had not maintained the record relating to the dispatch documents submitted by its field officers.

[†] The dispatch documents and sale bills covering the period from 2008-09 onwards, after revision of norm from three days to seven days for submission of documents, have been scrutinised.

We also observed that in the Patiala and Kapurthala district offices, the dispatch documents for the crop years 2006-07 to 2010-11 were not processed and the sale bills were not prepared within the prescribed period of one day, resulting in delay in submission of claims with FCI. There were delays of one to 30 days in preparation of sale bills in respect of 327 cases (35.09 *per cent* of 932 cases checked in audit) involving ₹ 0.66 lakh to ₹ 444.54 lakh. These delays led to loss of interest of ₹ 29.61 lakh.

Delay in submission of the dispatch documents, preparation of sale bills and lodging of claims resulted in loss of interest of ₹ 1.51 crore.

Thus, the internal control and monitoring system of the Company was deficient to enforce the field staff for submission of the dispatch documents, preparation of sale bills and lodging of the claims with FCI within the stipulated period resulting in financial loss of ₹ 1.51 crore to the Company during 2006-11 in the test checked cases mentioned above.

The Management, while admitting the facts, stated (September 2011) that disciplinary action would be initiated against the delinquent officials.

Failure to claim interest on delayed payments by FCI

2.1.24 In terms of GOI's standing instructions issued in December 1970 and reiterated in December 2001, FCI was to release payments against the wheat delivered to them within 24 hours of submission of the sale bills by the Company. In case of delay beyond the prescribed period, FCI was liable to pay interest at the bank rate on delayed release of payments.

The Company failed to raise claims of interest of ₹ 4.01 crore from FCI on delayed release of payments.

We observed that the Company had not laid down any system to claim interest from FCI against delay in receipt of payments from FCI. Scrutiny of records in the eight selected district offices for the year 2006-11 revealed that there were delays up to 226 days in receipt of payments from FCI. However, the district offices failed to raise claims for interest of ₹ 4.01 crore from FCI against the delayed release of payments by the FCI. The Company should evolve a system to monitor the working of its district offices to ensure that interest claims of the Company from FCI in respect of all the payment received late are raised and pursued.

The Management while admitting the facts stated (September 2011) that the matter has been taken up with FCI to allow interest on all delayed payments.

Excess use of gunny bags

2.1.25 The rates fixed by GOI for a quintal of wheat included the cost of two gunny bags of 50 kg each. Accordingly, the Company was getting cost of two gunny bags for each quintal of wheat delivered to FCI.

Scrutiny of records in eight selected district offices of the Company revealed that these district offices used 571.73 lakh bags for delivery of 284.785 lakh quintals of wheat to FCI during the crop years 2006-10 as against the required quantity of 569.57 lakh bags. Thus, the district offices used 2.16 lakh gunny bags valuing ₹ 52.82 lakh in excess of requirement. The Company neither

analysed the reasons for excess usage of gunny bags nor recovered its cost from the concerned field staff.

The Management stated (September 2011) that the field offices have been directed to look into this discrepancy. The reply indicates that the Company has not established any centralised system to monitor and keep a close watch on the usage of gunny bags.

Non claiming of interest on the cost of gunny bags

Failure of the Company to take up the matter for non inclusion of interest on the cost of gunny bags in incidental charges denied the scope to earn an income of ₹ 1.88 crore.

2.1.26 The GOI while fixing the rates for Rabi Marketing Season 2006-07 to 2010-11, included interest charges on the elements of MSP, statutory charges, mandi labour charges and transportation charges. Though the cost of gunny bags was included in the provisional rates of wheat for each crop year, it was not considered for calculation of the interest charges included in the incidental charges and the Company had not taken up the matter with the State Government/GOI. The failure of the Company to take up the matter for inclusion of the interest on the cost of gunny bags in the incidental charges for the crop years 2006-11 denied the scope to earn an income of ₹ 1.88 crore.

The Management stated (September 2011) that the cost of gunny bags shown in the cost sheet issued by GOI was inclusive of element of interest. The reply is not correct as interest element indicated in cost sheet was for advance procurement of gunny bales and not for 15 days/30 days post procurement period as allowed by GOI on other elements.

Non claiming of cost of polypropylene bags

Failure of the Company to claim cost of 40.87 lakh PP bags at previous year's rates in the absence of new rates resulted in non recovery of ₹ 5.66 crore.

2.1.27 The GOI allowed (May 2009) payment at the rate of ₹ 13.85 per HDPE/ PP[⊕] bag in the provisional rates for the year 2009-10. However, in the provisional rates for the crop year 2010-11 fixed by GOI in April 2010 it was *inter alia* mentioned that in case HDPE/ PP bags were used, the rate for the bags would be fixed later.

We observed that due to non fixation of rates of PP bags in the provisional rates for the crop year 2010-11, out of eight selected district offices only Kapurthala district office claimed and recovered the cost of PP bags at the old rates of PP bags applicable in the previous crop year 2009-10. Other seven selected district offices did not claim cost of 40.87 lakh PP bags used for delivery of wheat to FCI for the crop year 2010-11 even at the rates of previous year which resulted in non-recovery of ₹ 5.66 crore[∅▽].

The Management stated (September 2011) that it has taken up the issue of fixation of rates of PP bags for the crop year 2010-11 with GOI time and again. The reply does not justify the reasons for not raising the claims even at old rates of PP bags applicable in the previous crop year 2009-10.

[⊕] High Density Polythene/ Polypropylene.

[∅▽] Worked out at the rate of PP bags for the crop year 2009-10.

Non-reimbursement of interest charges for wheat directly delivered from mandis

2.1.28 GOI while fixing the rates for the crop years 2001-02 and 2002-03 considered that interest charges must cover all the expenses incurred during the procurement except administrative charges and proposed to consider the case for amendment in principle separately. However, as per the rates fixed by GOI for the crop years 2007-11, the interest on expenses incurred for the wheat stock delivered directly to FCI from *mandis* were not allowed, though it was allowed in the rates upto the crop year 2006-07.

Failure of the Company to take up the matter with GOI regarding interest charges on wheat directly delivered from mandis, deprived it to claim reimbursement of ₹ 3.33 crore from FCI on this account .

We observed that in case of direct delivery of wheat from *mandis*, funds of the Company remained blocked for minimum five to nine days[ℜ] for which no reimbursement of interest charges was allowed in the rates for the crop years 2007-11. This resulted in non reimbursement of interest charges of ₹ 3.33 crore in respect of direct delivery of 13.53 LMT of wheat by the Company.

We observed that the Company had not taken up the matter with GOI to reimburse the interest charges for wheat directly delivered from the *mandis.*

The Management stated (September 2011) that the rates from RMS 2005-06 onwards have not yet been finalised and they would take all such issues with the GOI at the time of finalisation of the rates.

Short reimbursement of interest, custody and maintenance charges

2.1.29 The rates per quintal for each crop year of the audit period (except 2008-09) included interest (on MSP, bonus if any, statutory charges, *mandi* labour charges and transportation charges) and custody and maintenance charges for a period of 15 days only. For the crop year 2008-09, it was for 30 days, whereas F&SD, Punjab worked out (October 2010) the actual average storage period of wheat as 77 days against the allowable period of 15 days/30 days for calculation of the interest and custody and maintenance charges.

Failure of the Company to take up the matter for reimbursement of interest and custody and maintenance charges for actual average stock holding period resulted in non-reimbursement of ₹ 132.73 crore.

The Company had taken up (October 2010) the matter with FCI, however, it failed to furnish the supporting documentary evidence to substantiate the actual expenditure incurred, in the absence of which FCI was reluctant to allow the custody and maintenance charges. In respect of the crop years 2007-08 to 2010-11, the Company failed to take up the matter with FCI. Consequently, the Company had to bear extra financial burden of ₹ 132.73 crore[♠] (interest charges: ₹ 112.30 crore and custody and maintenance charges**:** ₹ 20.43 crore).

ℜ Five days (three days for dispatch documents plus two days for processing of sale bills) were considered for 2007-08 when period allowed for receipt of dispatch documents was three days and nine days (seven days plus two days) for 2008-09 and onwards when the prescribed period for submission of dispatch documents was revised to seven days.

♠ Worked out on the basis of quantity of wheat delivered to FCI and average storage period (after allowing leverage of 15 days/ 30 days already provided by GOI in the provisional rates of wheat) during 2006-07 to 2010-11).

The Management, while admitting the facts, stated (September 2011) that the GOI would be requested to allow interest & custody & maintenance charges as per actual expenditure under this head.

Delay in claiming reimbursement of bonus

2.1.30 The GOI decided to pay an incentive bonus of ₹ 100 per quintal for procurement of wheat for the crop year 2007-08 over and above the MSP of ₹ 750 per quintal to the farmers. These rates also provided for payment of interest on bonus for 15 days period to the procuring agencies. The district offices, Sangrur, Kapurthala and Ludhiana made payment of ₹ 31.74 crore during April to June 2007 to the farmers. Thereafter, the district office Sangrur in June 2007, Kapurthala and Ludhiana in August 2007 raised bills belatedly for reimbursement of the bonus paid against wheat delivered to FCI and the payment was released by the FCI during the same month.

We observed that due to delay in raising the bills, the district offices had to bear the interest burden from the date of payment of bonus to the farmers till receipt of reimbursement from the FCI. This led to loss of interest of ₹ 38.58 lakh[⊗] on the payment of bonus in the three district offices. This indicates that there was no system to monitor the timely raising of claims by the district offices. At the same time, we observed that good practice was followed by the other selected district offices of Amritsar, Faridkot, Ferozepur, Mansa and Patiala in claiming the bonus in time alongwith the regular sale bills since April 2007.

Non claiming of the incidental charges at the revised rates

2.1.31 The GOI revised (June 2008) the rates of incidental charges per quintal of wheat from ₹ 135.68 to ₹ 136.41 for the crop year 2007-08. However, these orders were either not circulated or belatedly communicated to the District offices. We observed that in eight selected district offices, incidental charges were claimed (2008-09 to 2010-11) at the old rate of ₹ 135.68 per quintal for 71.79 lakh quintals of wheat for the crop year 2007-08 delivered to FCI. Since the rates were revised, the district offices were required to raise supplementary claims @ ₹ 0.73 per quintal for this quantity of wheat. But the district offices had not raised the supplementary bills. Thus, non claiming of the incidental charges at the revised rates resulted in loss of ₹ 52.40 lakh. This is indicative of lack of monitoring mechanism and absence of an effective system for timely raising of incidental charges at the revised rates in the Company.

Delayed/non claiming of incidental charges

2.1.32 The GOI fixed the provisional rates of wheat for the crop years 2006-11 in June 2006, May 2007, April 2008, May 2009 and April 2010 respectively. The provisional rates for the crop years 2007-08 and 2008-09 were subsequently revised in June 2008 and May 2008 respectively. In the

[⊗] Worked at GOI rates after allowing 15 days margin for which interest is paid by the FCI.

absence of fixation of the provisional rates before start of the crop year, the district offices had to raise the sale bills at the old rates. The district offices were required to lodge the claims for differential amount immediately on receipt of the new/revised rates. However, the district offices failed to lodge the claim immediately. They raised the claims after the delays of 4 to 585 days♦, which resulted in loss of interest of ₹ 1.21 crore in the selected district offices (except Sangrur).

Delay/ non-claiming of incidental charges resulted in loss of interest of ₹ 1.21 crore besides blockade of funds of ₹ 3.01 crore.

It was further observed that incidental charges amounting to ₹ 3.01 crore for the crop years 2009-11 were not claimed by two selected district offices (Sangrur and Ferozepur). Failure of these two district offices to claim the incidental charges resulted in blocking of the Company's funds of ₹ 3.01 crore. This was due to lack of monitoring mechanism and absence of an effective system for promptly raising the bills at the revised rates in the Company.

The Management stated (September 2011) that suitable disciplinary action would be taken against the officials if it was found that the delay has occurred due to their fault. Further developments were awaited.

Non claiming of differential expenses

2.1.33 GOI designated (July 2005) the Company as nodal agency for issue of release orders for delivery of wheat required for the Targeted Public Distribution System♣ (TPDS) in the State. The policy for delivery under TPDS provided that FCI would pay 95 *per cent* of the differentialℜ expenses on submission of the claim accompanied by utilisation certificates of the quantity actually distributed. Utilisation certificates would be submitted by the Company after ensuring that the wheat meant for TPDS had actually reached the beneficiaries. The remaining five *per cent* of the differential amount was to be paid by FCI on submission of the audited accounts.

Differential amount of ₹ 2.91 crore pertaining to the crop years 2006-09 was not claimed by the Company from FCI.

Scrutiny of records of TPDS wheat in the six selected district offices revealed that against supply of TPDS wheat, the remaining differential amount of ₹ 2.91 crore pertaining to the crop years 2006-09 was not claimed by the Company from FCI, though the accounts of the Company upto 2008-09 had been audited (September 2011).

The Management stated (September 2011) that necessary report has been sought from our District Offices and suitable action would be taken on receipt of necessary reply from the concerned District Offices. Further developments were awaited.

♦ After allowing margin of five days for preparation of bills.

♣ Includes Antyodaya Anna Yojna (AAY), BPL and APL.

ℜ Deferential expenses means difference of the acquisition cost and central issue price under the TPDS Scheme fixed by GOI.

Avoidable payment of infrastructure development cess

2.1.34 The State Government issued (April 1999) a notification for levy of infrastructure development (ID)[≈] cess on the sale or purchase of all agriculture produce except fruits, vegetables and juices. As per the notification, the incidence of payment of cess on the said agriculture produce shall be on the purchaser. Accordingly, all the procurement agencies paid the ID cess to the State Government at the time of wheat procurement.

Payment of ID cess in contravention of the instructions of the Company resulted in non recovery of ₹ 2.81 crore coupled with loss of interest of ₹ 54.86 lakh.

The Company instructed (August 2009) all its District Managers not to deposit ID cess in respect of wheat procured under the Above Poverty Line (APL) scheme of Targeted Public Distribution System as the same had already been paid at the time of procurement. We observed that ₹ 2.81 crore were inadvertently deposited with FCI from August 2009 to February 2010 on account of ID cess in contravention of the *ibid* instructions resulting in excess payment. The district offices failed to take up the matter with FCI for refund of this amount leading to non recovery of ₹ 2.81 crore coupled with loss of interest of ₹ 54.86 lakh (March 2011).

Issue of APL wheat after the validity period

2.1.35 GOI designated (July 2005) the Company as nodal agency for implementation of Above Poverty Line (APL) scheme under Targeted Public Distribution System of the Central Government for issue of foodgrains to the APL beneficiaries at the subsidised rates through depot holders. Under this scheme, the wheat issued against the quota of a specific month should be issued to the depot holders in the same month.

FCI released 3,198.13 quintals of wheat against the quota of APL scheme for the month of August 2009. However, the Inspector, Phagwara centre of Kapurthala District office of the Company issued this quantity of wheat to the depot holders in the month of September 2009. FCI refused to sign dispatch documents on the ground that it was issued after the validity period without getting its approval. Resultantly, the Company could not recover ₹ 42.88[♣] lakh, the differential value of quantity of wheat from FCI. We observed that the official responsible for the lapse has since been retired and the Company has not finalised any disciplinary proceedings against him.

Transportation of wheat

2.1.36 For transportation of wheat from *mandis* to the storage points, transportation contractors were appointed. The committees[Σ] are formed at the district level for fixation of transportation rates and the tenders are invited on

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[≈] Infrastructure development cess is a State fund created for the development of infrastructure in the State.

[♣] The difference between acquisition cost of the wheat and amount received from depot holders.

[Σ] Committees consisting of Deputy Director (F&SD) cum Regional Manager of the Company as Chairman, District Managers of all the procuring agencies and a representative of the Deputy Commissioner of the concerned District as members .

per quintal basis from different centres/ *mandis* to storage points. The deficiencies noticed are discussed in succeeding paragraphs.

Abnormal variation in transportation rates

2.1.37 The contracts for transportation from *mandis* to storage points were awarded on adhoc basis by allowing certain *per cent* enhancement over the previous years' rates. The rates for transportation were fixed on per quintal basis (which varied from ₹ 6.00 to ₹ 48.72 per quintal during 2006-11) and no weightage was given to the distance involved. It was, however, noticed that in the neighbouring State of Haryana, the 'Schedule of rates' were fixed with reference to per quintal per kilometer. We analysed the transportation rates paid in selected district offices and found wide variations in the rates per quintal per km with reference to rates fixed on per quintal basis. As worked out by Audit, the rates per quintal per km ranged from ₹ 0.45 to ₹ 2.88 during 2006-07 and ₹ 0.36 to ₹ 3.76 during 2010-11. We observed that the Company never considered the desirability to fix the transportation rate per quintal per km instead of per quintal to bring uniformity in the transportation rates. We further observed that though tenders were invited from the transporters for quoting mandi-wise per quintal rate, the rates were, however, finalised by providing certain *per cent* enhancement over the previous year's rates. This shows lack of planning and transparency in the procedure followed and thereby economies of competitive bidding could not be reaped. This failure resulted in extra burden of ₹ 19.09 crore[&] on the Company during 2006-11.

Fixation of transportation rates on per quintal basis instead of per quintal per km basis, resulted in extra burden of ₹ 19.09 crore on the Company.

The Management stated (September 2011) that the transporters in Punjab quote their rates by keeping in their mind distance of various areas and the rates quoted by them differs on the basis of distance and also on the basis of any other kind of hurdles like Kucha Road, Toll Tax barriers, Railway crossings etc. The reply is not acceptable as the Company had not formed any system to assess hurdles involved in the routes and the rates were fixed on per quintal basis. During exit conference, the Management stated that they are planning to form a committee for finalising transportation rates on per km per quintal rate basis.

Non-recovery of service tax

2.1.38 GOI imposed (January 2005) service tax on payment of transportation charges. Accordingly, the district offices of the Company paid service tax to the taxation authorities.

In the absence of any provision in the contract agreements entered into with the transporters, the Company could not recover the service tax of ₹ 1.44 crore.

Scrutiny of the records in eight selected district offices revealed that service tax of ₹ 1.44 crore was paid on transportation of wheat during 2006-10. In the absence of any provision in the contract agreements entered into with the transporters coupled with non taking of the matter with GOI for inclusion of service tax in the provisional rates, the Company could not recover the service tax paid either from the contractors or FCI.

[&] Worked out by deriving per quintal per km rate and comparing the same with lowest per quintal per km rate in the district during the season.

The Management stated (September 2011) that as the rates from Rabi Marketing Season 2005-06 have not yet been finalised, this issue would be taken up with GOI to reimburse all the expenses under the head transportation charges. The reply was silent in regard to absence of provision for recovery of service tax in the agreements with the transporters.

Internal Audit

2.1.39 The State Government had emphasized in July 1977 the need for a properly conceived and effectively implemented system of internal audit as it was an essential aid for effective financial and administrative management of public enterprises. However, the Company has neither framed internal audit manual nor has its own internal audit wing. The Company has been appointing firms of chartered accountants for conducting internal audit of its financial records every year. It was noticed that:

- The Internal Auditors submitted reports for the period 2006-07 to 2008-09 and reports for the period 2009-10 onwards were yet to be submitted by the auditors; and

- The internal audit reports were not brought to the notice of the BOD for perusal and remedial action. Thus, the internal audit was ineffective.

Monitoring and Control

2.1.40 The Company plays an important role in procurement of foodgrains for the central pool. For such an organisation to succeed in operating economically, efficiently and effectively, there should be adequate documented management systems of operations. We, however, observed that:

- the Company has not framed its functional manual containing detailed instructions regarding procurement procedure to be followed, storage practices to be adopted, system to be followed for delivery of wheat as well as timely raising of claims to FCI and Accounting Manual.

- the Company failed to establish a monitoring system to obtain feedback from its district offices about the costs incurred on its operations and to evaluate the payments received from FCI to assess whether all the elements of cost have been reimbursed by FCI or not. Resultantly, it failed to ensure:
    - inclusion of all elements of cost in the rates fixed by GOI;
    - timely raising of claims of incidental charges and interest for delay in receipt of payment from FCI;
    - timely reconciliation of gunny bales accounts and bank accounts;
    - uniformity in the fixation of transportation rates; and

- to obtain regular feedback from its district offices on disciplinary proceedings against the officers responsible for damages and shortages of wheat stocks for taking timely actions.

- the Company did not maintain any separate accounts for demurrage charges recoverable from the labour and transport contractors, in the absence of which the Company could not take action to recover the demurrage charges from the parties concerned.

- the Company failed to evolve a mechanism for regular reconciliation of advance payments made to the Director General Supplies and Disposal (DGS&D) through the Director, Food, Civil Supplies and Consumer Affairs, Punjab for purchase of gunny bags and gunny bags actually received thereagainst. Resultantly, its huge funds remained blocked with the DGS&D.

Conclusion

The performance of the Punjab State Grains Procurement Corporation Limited with regard to procurement, storage and delivery of wheat was suboptimal due to the following:

- **The availability of covered storage capacity was highly inadequate to cater to the storage requirement and the Company predominantly relied on open storage space exposing the grains to damage and pilferage.**

- **The Company failed to develop a mechanism to analyse its cost vis-à-vis the rates fixed by GOI so as to ensure that all the elements of its legitimate costs are reimbursed by GOI.**

- **There was lack of quality control mechanism in the Company to ensure safety of wheat stock.**

- **The Company failed to fix accountability / responsibility for the damages and shortages of wheat stock, even after 3 to 5 years of detection of these shortages.**

- **The Company failed to enforce the field staff to submit the dispatch documents, prepare the sale bills and lodge the claims with FCI within the stipulated period.**

- **The Company failed to check the ever increasing and high incidence of interest paid on cash credit availed for the procurement activities.**

- **The accumulated losses of the Company increased year after year and it failed to identify the loss making areas for taking corrective measures.**

Recommendations

We recommend that:

- **In the context of increasing trend in procurement and huge damages and shortages of wheat stock, the Company should expedite setting up of the infrastructure for covered storage of wheat in the State.**

- **The Company needs to vigorously pursue with the Central and State Government for reimbursement of all the elements of its legitimate costs.**

- **To ensure safety of wheat stock, the Company should evolve an adequate quality control mechanism like periodical measuring moisture contents, proper fumigation of stock etc.**

- **To act as a deterrent, the Company should expedite and finalise the departmental actions against the persons responsible for shortages and damages of wheat stock.**

- **The Company should ensure timely raising of bills against wheat delivered to FCI and also timely receipt of payments from FCI.**

- **By improving its administrative efficiency and getting reimbursement of its invested funds in time from FCI, the Company need to limit its cash credit so as to arrest its ever rising interest burden.**

- **The Company needs to maintain the working results for wheat and paddy procurement separately to identify the loss making areas and for taking corrective measures.**

We referred the matter to the State Government in June 2011, their reply had not been received (September 2011).

2.2 Performance audit on the working of Punjab State Power Corporation Limited (erstwhile Punjab State Electricity Board)

Executive Summary

Power is an essential requirement for all facets of life. The distribution system of the power sector constitutes the final link between the power sector and the consumer. The efficiency of the power sector is judged by the consumers on the basis of performance of this segment. National Electricity Policy aims to bring out reforms in the Power Distribution sector with focus on system upgradation, controlling and reduction of Transmission and Distribution losses and power thefts and making the sector commercially viable.

In Punjab, distribution of power upto 15 April 2010 was carried out by the erstwhile Punjab State Electricity Board (PSEB). Consequent to unbundling of PSEB from 16 April 2010, the same is now carried out by the Punjab State Power Corporation Limited (Company). The performance audit covering period from 1 April 2006 to 31 March 2011 was conducted to ascertain whether the aims and objectives stated in the National Electricity Policy and Plan were adhered to and how far the distribution reforms have been achieved.

Financial Position and Working Results

The Company was not able to recover its cost of operations and the accumulated losses increased year after year. The average realisation per unit ranged between ₹ 3.12 and ₹ 3.77 against average cost per unit of ₹ 3.70 to ₹ 4.18 during 2006-10.

Distribution network planning

Against the planned additions of 525 sub-stations over the audit period, only 136 sub-stations were actually added. Further, increase in transformation capacity was not commensurate with the increase in connected load. During the audit period, the connected load increased from 19,688 MW to 27,385 MW (39.09 per cent) whereas transformation capacity increased from 15,287 MVA to 20,199 MVA (32.13 per cent).

Implementation of Centrally Sponsored Schemes

Upgradation of the rural electrical infrastructure by erecting 7,014 pole mounted 25 KVA substations and providing 1.49 lakh single point free electricity connections to below poverty line (BPL) households were taken up (March 2008) under the Rajiv Gandhi Grameen Vidyuitikaran Yojna at a cost of ₹ 183.91 crore. The work was required to be completed by October 2010. However, upto March 2011, the Company could install only 2,108 (30.05 per cent) pole mounted 25 KVA sub-stations and could release only 0.60 lakh (40.27 per cent) BPL service connections. In order to carry on the power sector reforms, the Restructured Accelerated Power Development Reforms Programme was launched in July 2008 which aimed at establishment of IT enabled system for achieving reliable and verifiable baseline data alongwith strengthening of regular sub-transmission & distribution system and upgradation projects. However, in this respect, the Company could utilise only ₹ 18.19 crore (12.09 per cent) against ₹ 150.40 crore received from GOI as of March 2011.

Operational efficiency

The operational performance of the Distribution Companies is judged on the basis of availability of adequate power for distribution, adequacy and reliability of distribution network, minimising line losses, detection of theft of electricity, etc. Audit of operations of the Company revealed the following:

a) The Company was not able to meet the requirement of power in the State and the power deficit increased by 188.65 per cent from 5,376 MUs to 15,518 MUs during 2006-11. To meet the deficit of power, the Company resorted to

unplanned purchase of power through short term and panic measures at exorbitant rates, at an average cost of ₹ 5.75 per unit against its average realisation of revenue of ₹ 3.50 per unit of energy sold.

b) Though the overall transmission and distribution losses decreased from 23.92 to 17.96 per cent during 2006-11, they were still on the higher side as compared to maximum level of 15.5 per cent fixed by the Central Electricity Authority (CEA). Against the ideal ratio of 1:1, the ratio of transformation capacity to the total connected load ranged between 0.43:1 and 0.46:1 during 2006-11. Percentage of failure of DTRs ranged between 7.74 and 12.44 per cent during 2006-11. Further, the Company failed to devise proper internal control mechanism and effective managerial control to ensure timely return of damaged transformers after repair.

Billing and Revenue Collection Efficiency

As revenue from sale of energy is the main source of income, the efficiency lies in timely billing of energy sold to consumers and prompt collection of revenue in time. During audit period energy billed on the basis of meter readings ranged between 68.41 to 78.09 per cent of the total energy available for sale within the State. Outstanding dues increased from ₹ 1,331.37 crore to ₹ 1,728.30 crore during 2006-10. The Company failed to initiate effective pursuance for recovery of outstanding dues. There was no established and conclusive methodology for determination of AP consumption.

Financial Management

A review of financial management of the Company revealed that dependence on borrowed funds increased during the audit period and the borrowings increased from ₹ 11,285.24 crore to ₹ 17,336.68 crore (53.62 per cent) during 2006-10.

Tariff fixation

The Company failed (except 2006-07 and 2010-11) to file the Annual Revenue Requirement (ARR) petitions within the prescribed period of 120 days before the commencement of the respective year. Non-filing of the ARR petition for 2007-08 resulted in rejection of interest claim of ₹ 115.19 crore on non/delayed receipt of subsidy from the State Government during 2007-08.

Conclusion and recommendations

The Company was not able to recover its cost of operation and its accumulated losses increased by 62.41 per cent during 2006-11. It could not meet the demand of power in the State and power deficit increased by 188.65 per cent during 2006-11. For strengthening of distribution network in the State, though the Company had been initiating schemes from time to time, there are many schemes which had been abnormally delayed or remained to be completed. The Company consistently failed to achieve its performance parameters and the targets.

We have made seven recommendations to improve the distribution segment of the power sector in the State. Making of plans for reduction of T&D losses and power theft, explore the additional sources of availability of power at economical rates, ensure timely completion of all the schemes, achievement of performance parameters and targets, installing of 100 per cent metering and fixing yearly targets/ milestones for energy audit, etc. are some of these recommendations.

Introduction

2.2.1 The distribution system of the power sector constitutes the final link between the power sector and the consumer. The efficiency of the power sector is judged by the consumers on the basis of performance of this segment. However, it constitutes the weakest part of the sector, which is incurring large losses. In view of the above, the real challenge of reforms in the power sector lies in efficient management of the distribution system. The National Electricity Policy in this regard *inter alia* emphasises on the adequate transition from financing support to aid restructuring of the distribution utilities, efficiency improvements and recovery of cost of services provided to the consumers to make the power sector sustainable at reasonable and affordable prices besides others.

In the State of Punjab, the Punjab State Electricity Board (Board) was a vertically integrated agency upto 15 April 2010 and was responsible for generation, transmission and distribution of electricity. As part of the power sector reforms, the erstwhile Board was unbundled on 16 April 2010 and two companies viz. Punjab State Power Corporation Limited and Punjab State Transmission Corporation Limited were formed. Consequently, the business of distribution of power in Punjab is carried out by the Punjab State Power Corporation Limited (Company), which was incorporated on 16 April 2010 under the Companies Act, 1956 under the administrative control of Department of Power, Government of Punjab. The Management of the Company is vested with a Board of Directors comprising nine Directors appointed by the State Government. The day-to-day operations are carried out by the Chairman-cum-Managing Director, who is the Chief Executive Officer of the Company, with the assistance of Directors at Head office and Chief Engineers and Superintending Engineers in the field. During 2006-07, 27,896.22 MUs of energy was sold by the Company which increased to 32,740.30 MUs (provisional[⊗]) in 2010-11 i.e. an increase of 17.36 *per cent* during 2006-11. As on 31 March 2011, the Company had distribution network of 3.42 lakh CKM[*], 636 sub-stations and 4,72,238 transformers of various categories. The number of consumers was 73.21 lakh. The turnover of the Company was ₹ 12,210.02 crore in 2009-10[φ], which was equal to 54.51 *per cent* and 6.35 *per cent* of the State PSUs turnover and State Gross Domestic Product, respectively. It employed 55,547 employees as on 31 March 2011.

The National Electricity Policy (NEP) aims to bring out reforms in the Power distribution sector with focus on system upgradation, controlling and reduction of the Transmission and Distribution (T&D) losses and power thefts and making the sector commercially viable, besides financing strategy to generate adequate resources. It further aims to bring out conservation strategy to optimise utilisation of electricity with focus on demand side management and load management. In this background of reforms underway, it was considered

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⊗ The accounts of the Company for the year 2010-11 have not yet been finalised.

* Circuit Kilometer

φ Turnover of the Company for 2010-11 was not available due to non finalisation of its Accounts.

necessary to undertake performance audit on the working of the Power Distribution utility in the State Sector to ascertain whether it was able to adhere to the aims and objectives stated in the National Electricity Policy and Plan and how far the distribution reforms have been achieved.

A review on "Power Sector Reforms – signing of Memorandum of Understanding and implementation thereof" was included in the Audit Report (Commercial) – Government of Punjab for the year ended 31 March 2007. The report has not yet been discussed by the COPU (September 2011).

Scope and methodology of audit

2.2.2 The present performance audit conducted during October 2010 to May 2011 covers the performance of the Company* during the period from 2006-07 to 2010-11. The review mainly deals with Network Planning and execution, Implementation of Central Schemes, Operational Efficiency, Billing and Collection Efficiency, Financial Management, Consumer satisfaction, Energy Conservation and Monitoring. The audit examination involved scrutiny of records at the Head Office and six out of the twenty Distribution Circles selected on the basis of simple random sampling without replacement technique.

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

Audit Objectives

2.2.3 The objectives of the performance audit were to assess:

- whether aims and objectives of National Electricity Policy/Plans were adhered to and distribution reforms achieved;
- the adequacy and effectiveness of network planning and execution;
- efficiency and effectiveness in implementation of the central schemes such as, Revised Accelerated Power Development & Reform Programme (RAPDRP) and Rajiv Gandhi Grameen Vidyutikaran Yojna (RGGVY).
- operational efficiency in meeting the power demand of the consumers in the state;
- billing and collection efficiency of revenue from consumers;
- whether Financial Management was effective and surplus funds, if any, were judiciously invested;
- whether a system is in place to assess consumer satisfaction and redressal of grievances;
- that energy conservation measures were undertaken; and

* The word Company also refers to the Board for the period prior to formation of the Company.

- that a monitoring system is in place and the same is utilised in review of overall working of the Distribution Company (Discom).

Audit Criteria

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

- Provisions of Electricity Act, 2003.
- National Electricity Plan, Plans and norms concerning distribution network of Discom and Planning criteria fixed by the PSERC;
- terms and conditions contained in the Central Scheme Documents;
- standard procedures for award of contract with reference to principles of economy, efficiency and effectiveness;
- Norms prescribed by various agencies with regard to operational activities;
- Norms of technical and non-technical losses;
- Guidelines/ instructions/ directions of State Government/SERC; and
- Best performance under various parameters in the regions/all India averages.

Financial Position and Working Results

2.2.5 The financial position of the Company for the four years ending 2009-10[∂] is given below:

(₹ in crore)

Particulars	2006-07	2007-08	2008-09	2009-10
A. Liabilities				
Paid up Capital	2,946.11	2,946.11	2,946.11	2,946.11
Reserve & Surplus (including Capital Grants but excluding Depreciation Reserve)	4,307.41	4,705.05	5,146.64	5,707.97
Borrowings (Loan Funds)				
Secured	11,285.24	13,246.13	15,815.54	17,336.68
Unsecured	Nil	Nil	Nil	Nil
Current Liabilities & Provisions	2,590.28	3,497.89	3,390.41	4,019.20
Total	**21,129.04**	**24,395.18**	**27,298.70**	**30,009.96**
B. Assets				
Gross Block	15,413.59	16,420.74	18,431.77	20,446.25
Less: Depreciation	6,770.84	7,414.33	8,092.43	8,883.86
Net Fixed Assets	8,642.75	9,006.41	10,339.34	11,562.39
Capital works-in-progress	3,281.49	3,784.79	3,264.57	2,914.31
Investments	278.08	709.54	1,233.25	1,848.44
Current Assets, Loans and Advances	2,942.19	3,520.25	4,039.47	3,961.03
Miscellaneous Expenditure – Deferred Costs	4.01	4.06	10.84	11.04
Accumulated losses	5,980.52	7,370.13	8,411.23	9,712.75
Total	**21,129.04**	**24,395.18**	**27,298.70**	**30,009.96**
Debt : Equity	**7.07:1**	**31.87:1**	**-♥**	**-♥**
Net Worth♦	**1,268.99**	**276.97**	**(329.32)**	**(1,069.71)**

Source: Annual Statements of Accounts.

∂ Accounts of the Company for 2010-11 have not been finalised so far (September 2011).

♥ As the net worth of the Company was negative, debt equity ratio has not been worked out.

♦ Net worth represents Paid up Capital plus Reserve & Surplus minus Accumulated Losses minus miscellaneous expenditure yet to be written off (deferred costs).

Accumulated losses of the Company increased by 62.41 *per cent* from ₹ 5,980.52 crore in 2006-07 to ₹ 9,712.75 crore in 2009-10.

It may be seen from the above that the accumulated losses of the Company increased by 62.41 *per cent* from ₹ 5,980.52 crore in 2006-07 to ₹ 9,712.75 crore in 2009-10. Further, the Company had eroded its entire capital and reserves since 2008-09. The main reasons for this state of affairs were, higher level of sub-transmission and distribution losses, unplanned purchase of power through short term arrangements at exorbitant rates and the Company's failure to carry out the projects in time, besides huge borrowings involving heavy interest liability.

2.2.6 The particulars of cost of electricity vis-à-vis revenue realisation per unit therefrom are indicated below:

(₹ in crore)

SI.No	Description	2006-07	2007-08	2008-09	2009-10
1.	**Distribution (In MUs)**				
(i)	Own Generation	22,536.78	23,944.33	25,192.80	25,901.73
	Purchase of power	13,726.53	16,973.77	14,850.50	14,336.33
	Total power available for sale	36,263.31	40,918.10	40,043.30	40,238.06
(ii)	Less: Transmission & Distribution losses	8,367.09	8,796.27	7,416.02	7,888.00
	Net power sold				
	Power sold within State	26,617.04	30,242.90	29,809.60	31,933.93
	Power sold outside State	1,279.18	1,878.93	2,817.68	416.13
	Total net power sold	**27,896.22**	**32,121.83**	**32,627.28**	**32,350.06**
2.	**Income**				
(i)	Revenue from Sale of Power	7,030.96	7,913.14	9,010.34	8,694.72
(ii)	Revenue subsidy & grants	1,423.81	2,848.42	2,601.81	3,144.30
(iii)	Other income	254.03	321.33	303.04	371.00
	Total Income	**8,708.80**	**11,082.89**	**11,915.19**	**12,210.02**
3.	**Expenditure on Distribution of Electricity**				
(a)	**Fixed cost**				
(i)	Employees cost	1,751.48	2,035.27	2,202.05	2,496.71
(ii)	Administrative and General expenses	59.20	69.71	70.96	75.40
(iii)	Depreciation	603.79	665.15	693.73	797.00
(iv)	Interest and finance charges	884.29	863.62	1,194.59	1,329.61
	Total fixed cost	**3,298.76**	**3,633.75**	**4,161.33**	**4,698.72**
(b)	**Variable cost**				
(i)	Cost of generation of power	2,448.53	2,645.56	3,171.49	3,642.79
	Purchase of Power	4,164.49	5,805.08	4,936.00	4,386.17
(ii)	Electricity Duty[∞]				
(iii)	Transmission/Wheeling Charges	162.52	215.29	248.05	267.02
(iv)	Repairs & Maintenance	267.66	274.14	317.37	360.20
(v)	Other Expenses	(-)6.77[♣]	(-)101.33[♣]	122.05	156.64
	Total variable cost	**7,036.43**	**8,838.74**	**8,794.96**	**8,812.82**
(c)	**Total cost 3(a)+(b)**	**10,335.19**	**12,472.49**	**12,956.29**	**13,511.54**
4.	**Net Profit/(Loss) (2-3)**	**(1626.39)**	**(1389.60)**	**(1041.10)**	**(1301.52)**
5.	Realisation (₹ per unit) (including revenue subsidy)	3.12	3.45	3.65	3.77
6.	Fixed cost (₹ per unit)	1.18	1.13	1.27	1.45
7.	Variable cost(₹ per unit)	2.52	2.75	2.70	2.73
8	Total cost per unit (in ₹) (6+7)	3.70	3.88	3.97	4.18
9.	Contribution (5-7) (₹ per unit)	0.60	0.70	0.95	1.04
10.	**Profit (+)/Loss (-) per unit (in ₹) (5-8)**	**(-) 0.58**	**(-) 0.43**	**(-) 0.32**	**(-)0.41**

Source: Annual Statements of Accounts.

[∞] Electricity Duty has not been considered as variable cost since the same is collected from the consumers and paid to the State Government.

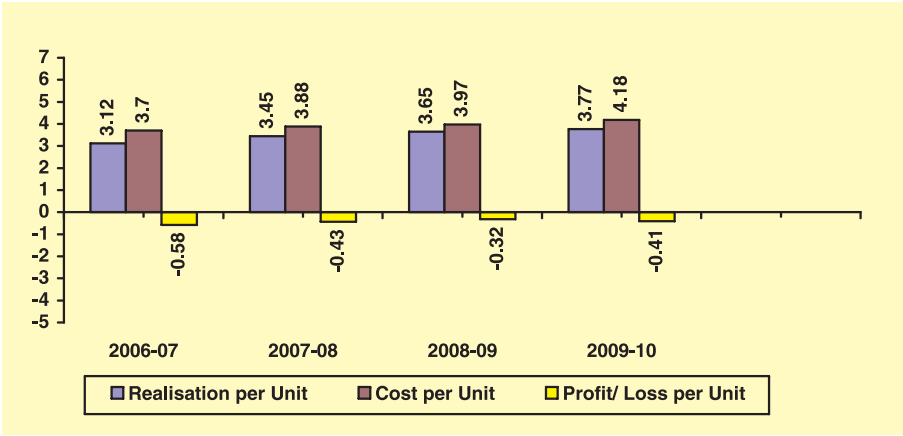
[♣] The figures are negative due to prior period adjustments.

It may be seen from the above that though the realisation *per* unit increased from ₹ 3.12 to ₹ 3.77 during the period 2006-10 (20.83 *per cent*), the cost per unit increased from ₹ 3.70 to ₹ 4.18 (12.97 *per cent*) during the corresponding period. Further, the contribution per unit had increased by 73.33 *per cent* from ₹ 0.60 to ₹ 1.04 during the period 2006-10. However, due to increase in fixed cost consisting of employees cost and interest payments, the impact of increase in contribution could not result in profits.

It was also evident from the above table that cost of generation and purchase of power, employees cost and interest and finance charges constituted the major elements of cost in 2009-10 which represented 59.42, 18.48 and 9.84 *per cent* of the total cost in that year. On the other hand, sale of power and subsidy compensation from the State Government constituted the major elements of revenue in 2009-10 which represented 71.21 and 25.75 *per cent* of the total revenue.

Recovery of cost of operations

2.2.7 The Company was not able to recover its cost of operations. The profit/loss per unit during the last four years ending 2009-10, is given in the graph below:



It may be seen from the working results that there remained a revenue gap of ₹ 1,626.39 crore in 2006-07 (even after including revenue subsidies & grants and other incomes), which decreased to ₹ 1,301.52 crore in 2009-10. The persistent revenue gap needs immediate attention of the State Government for necessary remedial action. The main reasons for high cost of energy as compared to the revenue from sale of power were high T&D losses, huge employees cost, steep increase in interest & finance charges and purchase of power at high cost.

Audit findings

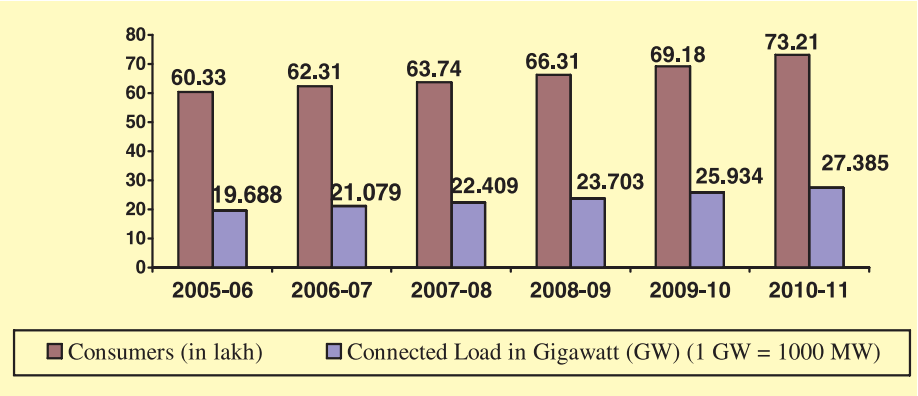
2.2.8 We explained the audit objectives to the Company during an 'Entry Conference' held on 19 January 2011. Subsequently audit findings were reported to the Company and the State Government in May 2011 and August 2011 and discussed in an exit conference held on 26 August 2011 in which

Director (Distribution), Chief Engineer (RE&APDRP) and Chief Engineer (Metering) attended from the Company side. The Company replied to the audit findings in August 2011. The views expressed by the management have been considered while finalising the review. The audit findings are discussed in the subsequent paragraphs.

Distribution Network Planning

2.2.9 The Power Distribution Company in the State is required to prepare long term/annual plan for creation of infrastructural facilities for efficient distribution of electricity so as to cover maximum population in the State. Besides the upkeep of the existing distribution network, additions in distribution network are planned keeping in view the demand/connected load, anticipated new connections and growth in demand based on Electric Power Survey. Considering physical parameters, Capital Investment Plans are submitted to the State Government/SERC. The major components of the outlay include normal development and system improvement besides rural electrification and strengthening of the IT enabled systems.

The number of consumers and the connected load during 2006-11 are given below:



The Company failed to add the distribution capacity to match with the pace of growth in connected load. As compared to 39.09 *per cent* growth in connected load, the distribution capacity increased by only 32.13 *per cent* during 2006-11.

While the system improvement and rural electrification schemes have been dealt with separately in the subsequent paragraphs, the particulars of distribution network planned vis-à-vis achievement thereagainst in the State as a whole is depicted in ***Annexure 8***. It may be seen from the annexure that against the planned additions of 525 sub-stations over the audit period, only 136 substations were actually added. Further, during the audit period, the Company had not fixed any targets for addition of 11 KV distribution transformation capacity, HT lines and LT lines. The ideal ratio of transformation capacity to the connected load is 1:1. As compared to the 39.09 *per cent* growth in connected load from 19,688 MW (equivalent to 22,373 MVA[ϒ]) in 2006-07 to 27,385 MW (equivalent to 31,119 MVA[ϒ] at 0.88 Power Factor) in 2010-11 as depicted in the graph, the distribution transformers capacity increased by only 32.13 *per cent* from 15,287 MVA to 20,199 MVA. Thus, the increase in distribution transformers capacity did not match with the

ϒ 1 MVA = MW/ 0.88

pace of growth in connected load. At the connected load of 27,385 MW as of March 2011, the requirement of transformers capacity would be 32,757 MVA after considering the requirement of spin reserve of *5 per cent*. After giving allowance for the maximum load of 80 *per cent* at which transformers can function in normal manner, the required transformers capacity would work out to 40,946 MVA. However, the actual capacity by the end of March 2011 was only 20,199 MVA (49.33 *per cent*). This led to overloading of network and failure to provide reliable electricity, besides failure to reduce the transmission losses.

Instances of irregularities in the implementation of development work as noticed, are discussed below:

Conversion of 11 KV 3 phase 4 wire system to 3 phase 3 wire system

2.2.10 Urban pattern of supply (UPS) with 3 phase 4 wire system was being provided to the villages in the State. Under this system, after completion of the scheduled three phase supply hours to the agricultural tubewells, the cottage industries and rural water supply pumps in the villages were deprived of the three phase supply as the tubewells load was connected to the 3 phase feeders and the general load of the villages was connected to the fourth wire. Further, such feeders remained energised from the substations for 24 hours and it provided a means to the Agricultural Pumpset consumers to indulge in theft of energy by running their tubewell motors even after the scheduled hours of power supply. In order to mitigate this problem, the Company decided (October 2006) to convert the 3 phase 4 wire system into 3 phase 3 wire system of UPS to 2,391 villages and 991 rural water works on turnkey basis instead of doing departmentally due to shortage of manpower. The Punjab Rural Development Board (PRDB) agreed to grant ₹ 130 crore out of which ₹ 65 crore was released in July 2008 for this purpose.

The Company issued (March 2008) two work orders to Genus Infrastructure Limited, Jaipur (GIL) in two Distribution Circles and 13 work orders to Instrumentation Limited, Lucknow (ILL) in the remaining Distribution Circles (except City Circle, Amritsar). These works were required to be completed by October 2008, but subsequently on the request of the firms, the period was extended upto 30 June 2009. Due to dismal performance of ILL, the Company cancelled (August 2009) the work order and decided to carry out the works departmentally or through outsourcing. Subsequently, on the representation (October 2009) of the firm that it was a Government Company and would be able to do the work if the scope was reduced, the Company re-allotted (February 2010) the work in 7 Circles for completion by 31 March 2010. The firm could complete (June 2010) the work of only 53 (6.82 *per cent*) rural water works out of 777 rural water works and 54 (3 *per cent*) villages out of 1,806 villages allotted to it. Consequently, the Company cancelled (September 2010) the re-allotted work order and the firm was blacklisted and a penalty of ₹ 4.84 crore was charged to the firm. The balance works were taken up departmentally.

We observed that ILL was allowed to pile up the material at site without linking it with the proportion of completion of work which was against the prudent commercial practices. Further, keeping in view the dismal performance of the firm, the Company should have considered the desirability to cancel the work at the earlier stages. Thus, due to lack of proper monitoring and non taking of timely remedial measures, the Company failed to mitigate the problem of theft of energy. Besides, the funds of more than ₹ 23 crore (value of unutilised material piled up in stores) remained blocked for more than two years.

Due to lack of monitoring and non adoption of prudent commercial practices, the Company not only failed to mitigate the problem of theft of energy but the funds of ₹ 23 crore also remained blocked for more than two years.

GIL also could complete the work of only 403 (69.24 *per cent*) villages out of 582 villages and 138 (64.49 *per cent)* rural water works out of 214 rural water works by March 2011 and the remaining works were in progress.

Thus, the Company upto March 2011, was able to complete the work of only 575[♣] (24.05 *per cent*) out of total 2,391 villages (including three villages not allotted to these two firms) and 227[•] (22.91 *per cent*) out of 991 rural water works and incurred ₹ 73.25 crore as against the first installment of ₹ 65 crore. Thus, the Company incurred ₹ 8.25 crore out of its own funds as it failed to recover the second installment of grant of ₹ 65 crore from the PRDB due to not taking up the matter for release of remaining grant (July 2011).

Conversion of Low Voltage Distribution System to High Voltage Distribution system

2.2.11 The Company decided (June 2006) conversion of the existing LT lines Low Voltage Distribution System (LVDS) to 11 KV High Voltage Distribution System (HVDS) in respect of 9.30 lakh Agriculture Power (AP) connections to improve the voltage profile, reduce theft of energy and to reduce the LT line losses etc. The Company submitted (July - September 2006) 46 schemes at an estimated cost of ₹ 2,387 crore to Rural Electrification Corporation for sanction of loan, out of which REC sanctioned (September - November 2006) ₹ 2,176.30 crore for 40 schemes.

In the first phase, the Company placed (October 2007) 16 work orders (relating to 6 schemes) on turnkey basis at a cost of ₹ 592 crore for conversion of 81,253 AP connections. These works were to be completed by May 2008. These were, however, delayed due to non-clearance of sketches and non supply of complete data by the operation divisions for determining the actual requirement of DTRs, non execution of work due to pressure of Kissan Union and disputed cases requiring Company's intervention. Consequently, the completion period was extended upto March 2009.

As per the condition of sanction of the loan by REC, a third party evaluation had to be carried out on completion of the schemes to ascertain the voltage profile, reduction in line losses and increase in power factor after conversion

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♣ Including the work of 118 villages done departmentally.

• Including 36 rural water works completed departmentally.

to HVDS. The works were completed in May 2009, but the work order for third party evaluation was placed only in August 2010 after a delay of 14 months. Though the evaluation work was to be completed within 4 months, the final report was still awaited (May 2011). In absence of evaluation reports of the scheme, performance of the distribution system after conversion of LVDS to HVDS could not be ascertained in audit.

Twenty five work orders (relating to 19 schemes) under the second phase were placed (December 2009) at a cost of ₹ 639.52 crore for conversion of 1,08,377 connections. The works were required to be completed within 13 months i.e. January 2011. In the meanwhile, in order to reconcile the irregularities in the AP load, the Company introduced Voluntary Disclosure Scheme (October 2009) due to which the requirement of transformers of higher ratings increased. The Company failed to keep pace with the increased requirement of transformers of higher ratings and consequently delayed the implementation of the scheme of conversion of LVDS to HVDS system.

We observed that even after the lapse of about five years, the Company considered only 1.90 lakh connections and was able to convert (March 2011) 1.82 lakh connections thereagainst from LVDS to HVDS, out of the total 9.30 lakh connections by incurring ₹ 956.10 crore. The schemes to convert the remaining 7.40 lakh connections[♣] were not considered/executed and the Company could not avail the loan of ₹ 944.78 crore out of ₹ 2,176.30 crore sanctioned by REC. The Company has also not evaluated the success/benefits of the scheme.

The Management stated (August 2011) that conversion of remaining connections was highly capital intensive and the Company was doing cost benefit analysis before taking any decision. The reply is not acceptable as the cost benefit analysis should have been done before taking up the scheme.

Shifting of meters outside the premises of the consumers

2.2.12 With a view to reduce the T & D losses, the Company approved (June 2006) a Project for shifting of meters of the consumers[¥] outside their premises in Pillar Boxes/Meter Boxes on pole or outer wall through outsourcing. The Detailed Project Reports (DPRs) for 19 schemes of consumers, which were not covered under Restructured Accelerated Power Development and Reforms Programme (R-APDRP) schemes for shifting of meters were framed in July 2009 at an estimated cost of ₹ 697 crore. Under the scheme, 90 *per cent* funds of the total cost of the projects were to be funded by the REC as a loan and 10 *per cent* funds were to be arranged by the Company itself. The investment was expected to payback in 2 to 3 years due to saving of T & D losses.

The Company took about eight months to decide whether to execute these schemes departmentally or through outsourcing and finally decided (March

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♣ This also includes connections to be covered under the remaining 15 schemes.

¥ Domestic Supply (DS), Non Residential Supply (NRS), Small Power (SP) & Medium Supply (MS)

2010) to execute these schemes on turnkey basis. Work orders for these schemes at a total cost of ₹ 684.47 crore were issued (June/July 2010) for shifting of meters of 32.14 lakh consumers. The entire project was required to be completed within seven months i.e. by February 2011 which was subsequently extended to December 2011 and upto March 2011, only 9.06 lakh meters (28.19 *per cent*) out of the total 32.14 lakh meters were shifted by incurring ₹ 83.07 crore. We observed that the delay in overall execution of the project was mainly due to delay of nearly three years from June 2006 to July 2009 on account of inaction/indecisiveness of the Company regarding the mode of execution of the work. Non-availability of material in time, change in scope of work, delay in approval of sketches by the Company and resistance by the consumers contributed for delay subsequent to the issue of work orders.

The Management stated (August 2011) that work of shifting was quite labour intensive and volume of work very large and there was lack of trained labour in the market. The reply is not acceptable since the work is mainly being carried out by outsourcing.

Implementation of Centrally Sponsored Schemes

Rural Electrification

2.2.13 The National Electricity Policy states that the key objective of development of the power sector is to supply electricity to all areas including the rural areas for which GOI and the State Governments would jointly endeavour to achieve this objective. Accordingly, Rajiv Gandhi Grameen Vidyutikaran Yojna (RGGVY) was launched in March 2005, which aimed at providing access to electricity for all households in five years for which Government of India provided 90 *per cent* capital subsidy for this scheme and 10 *per cent* of the cost of project to be contributed by the Company.

Besides, the GOI notified the Rural Electrification Policy (REP) in August 2006. The REP *inter-alia* aims at providing access to electricity for all households by 2009 and Minimum lifeline consumption of one unit per household per day as a merit good by the year 2012. The other RE schemes viz., Accelerated Electrification of one lakh villages and one crore household, Minimum Needs Programme were merged into RGGVY. The features of the erstwhile 'Kutir Jyoti Programme' were also suitably integrated into this scheme. Rural Electrification Corporation (REC) was notified as the nodal agency for implementation of this scheme.

Since all the 11,840 villages of Punjab (as per 2001 census) had already been

electrified[*], upgradation of rural electrical infrastructure and providing electricity connections to Below Poverty Line (BPL) house holds which have no electricity connection was taken up with REC under RGGVY scheme. For upgrading the rural electrical infrastructure in all the districts, 17 schemes for erecting 7,014 pole mounted 25 KVA substations and providing 1.49[⊕] lakh single point free electricity connections to the BPL households were sanctioned (March 2008) by REC at a cost of ₹ 154.59 crore, which was subsequently increased (August 2008) to ₹ 183.91 crore.

The Company received funds of ₹ 57.37 crore (₹ 46.89 crore in October 2008 and ₹ 10.48 crore in March 2009) from GOI through REC as first instalment. However, it could utilise only ₹ 26.16 crore (45.60 *per cent*) upto March 2011 as detailed under:

(₹ in crore)

Year	Opening balance	Funds received during the year	Total funds available	Funds Utilised	Unspent funds at the end of the year
2008-09	-	57.37	57.37	1.62	55.75
2009-10	55.75	-	55.75	13.38	42.37
2010-11	42.37	-	42.37	11.16	31.21
TOTAL		**57.37**		**26.16**	**31.21**

Source: Statistical data provided by the Company.

Due to underutilisation of first instalment, the Company could not receive the balance grant of ₹ 108.15 crore from the GOI.

Due to underutilisation of first installment, the Company could not receive the balance grant of ₹ 108.15 crore[▽] from the GOI.

Seventeen work orders for execution of all the schemes on turn-key basis were awarded (August 2008) through competitive bidding to KLG Systels Limited, Gurgaon (KLG). As per the terms and conditions of REC, the schemes were required to be completed within two years from the date of release of first instalment i.e. by October 2010. However upto March 2011, KLG could complete only 0.60 lakh (40.27 *per cent*) BPL service connections out of 1.49 lakh and install only 2,108 (30.05 *per cent*) pole mounted 25 KVA substations out of 7,014 substations awarded to it. Due to dismal performance of the firm, the balance work orders were cancelled (March 2011) and the Company decided to carry out the remaining work departmentally.

We observed that due to poor monitoring, the Company not only failed to ascertain the mismanagement, lack of manpower, non issue of material to labour, and non erection/commissioning of 25 KVA distribution transformers by the firm but also could not take remedial actions for completion of the work in time. We further observed that the Company even failed to initiate action

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[*] A village is classified as electrified based on certificate issued by the Gram Panchayat certifying the creation of basic infrastructure, provision of electricity to public places in the village and electrification of at least 10 *per cent* of the total number of households in the village.

[⊕] These were non-electrified BPL households out of total 3.18 lakh BPL households in the State.

[▽] Capital subsidy of ₹ 165.52 crore (Total cost of Project : ₹ 183.91 crore x 90 *per cent*) minus ₹ 57.37 crore received from GOI.

for finalisation of Rural Electrification Plan, which speaks of absence of proper planning.

The Management stated (August 2011) that balance work would be completed at the risk and cost of the firm. The reply is not acceptable as there was no risk and cost clause in the work order placed on the firm.

Accelerated Power Development and Reforms Programme

2.2.14 The GOI approved (June 2003) the Accelerated Power Development and Reforms Programme (APDRP) to leverage the reforms in power sector through the State Government. This scheme was implemented with the objectives of upgradation and strengthening of sub-transmission and distribution system, energy accounting and metering etc., for which GOI provided 50 *per cent* of the cost in the form of 25 *per cent* grant and 25 *per cent* loan and the remaining 50 *per cent* was to be arranged by the Company.

The Ministry of Power (MoP) approved (October 2002-September 2005) 26 schemes for 23 towns and three circles (Patiala, Khanna and Mohali) in Punjab at an outlay of ₹ 715.57 crore. These schemes were to be completed within two years from the date of their approval. However, no scheme was completed within the scheduled periods and continued till February 2009. These schemes were closed due to launching of the R-APDRP scheme in July 2008. Between 2002-03 and February 2009, the Company had received ₹ 202.67 crore from MoP as grant and ₹ 232.76 crore from REC as matching fund loan and incurred an expenditure of ₹ 462.74 crore under these schemes as per details given below:

(₹ in crore)

Year	Funds released by		Funds available	Funds utilised	Balance Available
	GOI	REC			
Upto 2006-07	202.67♦	211.60	414.27	369.10	45.17
2007-08	-	16.92	62.09	39.48	22.61
2008-09	-	4.24	26.85	54.16♣	-
Total	**202.67**	**232.76**		**462.74**	**-**

Source: Statistical data provided by the Company.

Scrutiny of records showed that the Company failed to achieve the targets relating to distribution transformers' metering, installation of LT capacitors, replacement of breakers, construction and augmentation of substations, feeder metering and upgradation of the overloaded feeders under APDRP. There were significant shortfalls in achievement of the targets as detailed below:

♦ ₹ 23.93 crore released by the GOI in March 2007 were not transferred to the Company by the State Government immediately but transferred in August 2009.

♣ ₹ 27.31 crore were incurred by the Company from its own sources.

The Board failed to achieve the envisaged targets under APDRP Programme.

Sl. No.	Item	Targets	Achievement	Percentage
1.	**Metering (Nos.)**			
	Distribution Transformers' metering	31,308	13,710	43.79
	Feeder metering	889	814	91.56
2.	**Capacitors (KVRs)**			
	LT	16,716	2,856	17.09
3.	**Renovation and modernisation of Grid Substations (Nos)**			
	Replacement of 33/66 KV breakers	190	134	70.53
	Replacement of 11 KV breakers	633	379	59.87
4.	**Sub transmission Works (Nos)**			
	New 66 KV Grid	42	27	64.29
	Augmentation of capacity of Sub Stations	30	25	83.33
5.	**Renovation and modernisation of Distribution Works**			
	11 KV lines (Circuit Kms.)	3,666	2,409	65.71
	LT lines (Circuit Kms.)	2,471	854	34.56
	Feeder upgradation (Nos.)	607	100	16.47

Source: Statistical data provided by the Company.

The above table showed that implementation of APDRP was tardy in respect of some activities. We observed that this state of affairs was due to:

- Lack of proper system of monitoring of implementation of the programmes.
- The administrative intervention under APDRP by way of designating the Distribution Circles as independent profit centres and feeders as business units for ascertaining the accountability and fixing the responsibility for non-achieving the targets was not implemented at all.
- Due to inadequate distribution transformer metering and feeder metering, computation of energy sent was made on assessment basis, adversely affecting the veracity of the source data for computation of the aggregate, technical and commercial (AT&C) losses.
- Due to non installation of capacitors, non replacement of breakers and non augmentation of the distribution system as targeted, the Company failed to reduce the AT&C losses to the desired extent. The AT&C losses in eight out of 23 towns covered under APDRP increased after implementation of the scheme.
- Against the provision of ₹ 64.31 crore for various IT packages, only ₹ 8.57 crore (13.33 *per cent*) were spent mainly on purchase of computers. Under utilisation of the funds in respect of IT enabling activities such as consumer indexing, digital mapping, automated meter reading, data loggers etc. contributed to non implementation of effective and meaningful energy accounting and audit.

The Management stated (August 2011) that delay in implementation of APDRP project was mainly due to unrealistic DPRs and lack of experience in execution of projects. The reply was not acceptable as it was open to the Company to take the help of consultants and experts for the preparation of DPRs and imparting training to their staff. This speaks of lack of preparedness, defective planning and inadequate internal control mechanism. The Company should have taken measures to ensure completion of the projects in time and optimum utilisation of the grants for development works.

Restructured APDRP

2.2.15 In order to carry on the reforms further, GOI launched the Restructured APDRP (R-APDRP) in July 2008 as a Central Sector Scheme for XI Plan (2007-12). The R-APDRP scheme comprises Part A and B. Part A is dedicated to establishment of IT enabled system for achieving reliable and verifiable baseline data system in all the towns, besides installation of SCADA♣/Distribution Management System (DMS). For this, 100 *per cent* loan was to be provided by GOI which was convertible into grant on completion of the programme and verification of the same by the third party independent evaluating agencies. Part B of the scheme deals with strengthening of regular sub-transmission and distribution system and upgradation of the projects. The Power Finance Corporation (PFC) was the nodal agency for the implementation of this scheme.

Financial Performance

The details of the funds released by GOI and utilisation thereagainst under the R-APDRP are depicted below:

(₹ in crore)

Year	Funds released by GOI	Funds available	Funds utilised	Balance	Percentage of balance to funds available
2009-10	81.85	81.85	-	81.85	100
2010-11	68.55	150.40	18.19	132.21	87.91

Source: Statistical data provided by the Company.

The above table revealed that the Company received (December 2009- April 2010) ₹ 150.40 crore (₹ 81.85 crore for Part A and ₹ 68.55 crore for Part B) as first installment of the sanctioned loans. The Company could not utilise these funds immediately as it took more than nine months (July 2009 to April 2010) for selection of a firm for implementation of Part-A of the programme. The Company also failed to make necessary modifications in the sanctioned DPRs in time resulting in non tendering of works for implementation of Part-B of the programme. Consequently, the Company was able to utilise only ₹ 18.19 crore (12.09 *per cent*) upto March 2011. The remaining funds (₹ 132.21 crore) were parked by the Company in fixed deposits. Against these fixed deposit, the Company availed 95 *per cent* overdraft for its working capital requirement by way of diversion of funds. Further, the Company also incurred loss of interest of ₹ 40.14 lakh on the remaining 5 *per cent* portion (₹ 6.61 crore) of the parked amount as it earned interest on fixed deposit at the rates ranging from 3 to 9.41 *per cent* as against the interest payable at the rate of 11.5 *per cent* per annum on the sanctioned loans.

Thus, due to the Company's inefficiency and abnormal delay in tendering and revision of the DPRs etc, it could not utilise the GOI fund in time.

♣ Supervisory control and data acquisition system.

The Management stated (August 2011) that the loan amount shall be utilised by 31 March 2012. The reply is not convincing as at the present pace of progress of the work, it is apprehended that the overall project would not be completed in time.

(a) Establishment of IT enabled system (Part A)

Part-A of the R-APDRP scheme is dedicated to establishment of IT enabled system and SCADA/Distribution Management System (DMS). Under this part, the GOI cleared (June 2009) the DPRs for 47 towns at a cost of ₹ 354.11 crore. Spanco Ltd., Gurgaon was appointed (April 2010) for implementation of the IT infrastructure in these towns at a cost of ₹ 284.06 crore. The pilot project (consisting of data centre) was to be implemented within 12 months from the date of award of contract. For all the other identified project areas, implementation was to be completed within 18 months from the date of award of contract. However, the firm had completed only site survey of the 47 towns so far (April 2011). Out of the 47 towns, 3 towns viz. Jalandhar, Ludhiana and Amritsar were selected for implementation of SCADA/DMS projects. North Delhi Power Limited, New Delhi was engaged as a consultant (August 2010) at a cost of ₹ 55.50 lakh for implementation of SCADA/DMS. Preparation of DPRs for the three cities were in progress (March 2011). As all the works are required to be completed by June 2012 and installation of SCADA/DMS system was still at the stage of preparation of DPRs, it is apprehended that this would result in delay of completion of the overall project.

The Management stated (August 2011) that delay was due to obstacles/difficulties faced by the Information Technology Implementing Agency (ITIA) as skilled manpower/equipment was not available with them for Geographical Information System (GIS) survey activity being labour intensive. The reply is not acceptable since as per terms and conditions of the contract ITIA agency was required to arrange equipment and skilled manpower to ensure completion of work within the scheduled time.

(b) Strengthening of sub-transmission and distribution systems (Part B)

The focus in this part was on reduction of AT&C losses on sustainable basis. As per terms of the scheme, 25 *per cent* loan is to be provided by GOI and upto 50 *per cent* of loan is convertible to grant depending on extent of maintaining AT&C loss level at 15 *per cent* level continuously for five years. The Company prepared (February 2010) 47 schemes for renovation, modernisation, strengthening of 11 KV level sub-stations, transformers, reconductoring of lines, load bifurcation, feeder separation, load balancing etc. for 47 towns selected for Part-A. As per guidelines, the Company was required to submit DPRs in two parts i.e. Part-A and Part-B for each project area. The Company, however, submitted (February 2010) 47 schemes for 47 towns for Part-B after a delay of seven months from the date of submission of DPRs for Part-A. MoP cleared (March 2010) 15 schemes at a cost of ₹ 511.83 crore against which the Company after a delay of more than one year (June/July 2011) had placed work orders only for shifting of meters outside the consumers' premises and replacement of LT bare conductor with new cable

for a value of ₹ 83.45 crore (16.30 *per cent* of total cost of project). We observed that as completion of SCADA in Part-A depends upon completion of Part-B, the slow progress of Part-B works would affect the outcome of the overall project.

(c) Aggregate Technical & Commercial losses

One of the prime objectives of R-APDRP scheme was to strengthen the distribution system with the focus on reduction of Aggregate Technical & Commercial losses on sustainable basis. However, the Company had not yet evolved any system for segregation of the technical and commercial losses through energy audit at all levels.

Consumer metering

2.2.16 According to the Electricity Act, 2003, it was mandatory to have 100 *per cent* metering of all the electricity connections including the Agricultural Pumpset (AP) connections. PSERC in its tariff Order 2010-11 also directed the Company to comply with the requirement of the Electricity Act, 2003 (Act) without further delay.

The Company had attained 100 *per cent* metering in respect of all the consumers except the AP consumers. Percentage of achievement against the requirement of installation of meters to make it 100 *per cent* metering and meters actually installed during 2006-11 ranged between 12.23 *per cent* to 27.36 *per cent* as shown in **Annexure-9**. The Company had not fixed any targets for installation of meters on AP consumers.

Operational efficiency

2.2.17 The operational performance of the Distribution Companies is judged on the basis of availability of adequate power for distribution, adequacy and reliability of distribution network, minimising line losses, detection of theft of electricity, *etc*. These aspects are discussed below.

Purchase of Power

2.2.18 The demand for energy has been increasing year after year in the State due to economic and social development. Assessment of future demand and requirement of power is calculated on the basis of past consumption trends, present requirement, load growth trends and transmission & distribution losses and its trend. PSERC approves the sources for purchase of power and purchase cost based on the estimates given in the Annual Revenue Requirement (ARR) of the Company.

The details of demand for power assessed on the basis of the 17th Electric Power Survey (EPS), purchase of power approved by PSERC and actual power purchased during the period 2006-11 are as under:

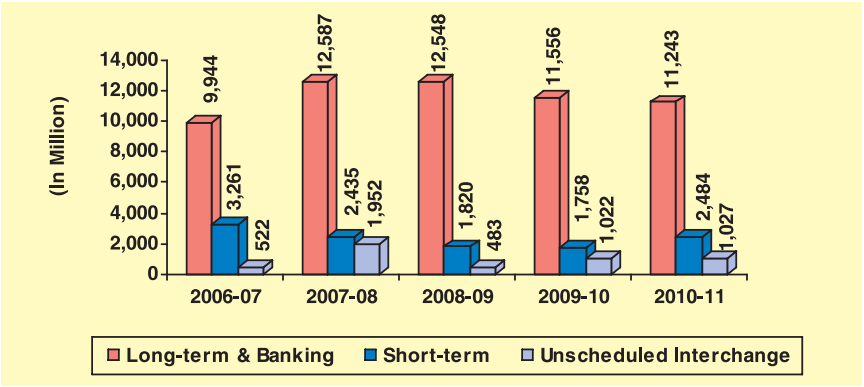
(Million Units)

Year	Demand assessed in EPS	Approved by PSERC			Actual power used		Shortage	Excess (+)/ shortfall (-) in purchase of power against approved
		Own generation	Purchase of power	Total	Own generation	Purchase of power		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)= (2-6-7)	(9)= (4-7)
2006-07	41,639	22,415	12,181	34,596	22,536	13,727	5,376	(+) 1,546
2007-08	44,868	23,788	14,260	38,048	23,944	16,974	3,950	(+) 2,714
2008-09	48,347	25,061	13,602	38,663	25,192	14,851	8,304	(+) 1,249
2009-10	52,096	25,741	14,336	40,077	25,902	14,336	11,858	-
2010-11 (Provisional)	56,136	25,174	17,181	42,355	25,864	14,754	15,518	(-) 2,427

Source: Tariff Orders issued by the PSERC and statistical data supplied by the Company.

The Company was not able to meet the requirement of power in the State and power deficit increased by 188.65 *per cent* from 5,376 MUs in 2006-07 to 15,518 MUs in 2010-11.

It may be seen from the above table that the Company was not able to meet the requirement of power in the State and the power deficit increased by 188.65 *per cent* from 5,376 MUs in 2006-07 to 15,518 MUs in 2010-11. To bridge the gap, the Company entered into short term power purchase agreements with various agencies viz., Central PSUs, Independent Power Producers (IPP), etc. besides resorting to unscheduled interchange purchases on need basis. The break-up of the total power purchased was as follows:



The source-wise purchase of power during the review period is given in the ***Annexure 10***.

It may be seen from the above graph and annexure that out of 74,642 MUs power purchased during 2006-11, 16,764 MUs (22.46 *per cent*) was in the form of overdrawl from the grid and short term power purchase. The overdrawal from grid and short term power purchases were made at ₹ 4.69[ℜ] per unit and ₹ 6.22[ℜ] per unit respectively as compared to long term sources at the rate of ₹ 2.73[ℜ] per unit. To meet the deficit of power, the Company resorted to unplanned purchase of power through short term and panic measures at exorbitant cost i.e. at an average cost of ₹ 5.75[♥] per unit, when its average realisation of revenue was ₹ 3.50[♥] per unit of energy sold during the audit period. Had the Company resorted to well planned long term

ℜ Worked out on the basis of weighted average for 2006-11.

♥ Worked out on the basis of weighted average for 2006-10.

arrangements of power purchase, the short term purchase of power at high cost of ₹ 5,062.73[†] crore incurred during 2006-11 could have been reduced considerably.

We observed that the total supply even after purchase of power from other sources was not sufficient to meet the peak demand as depicted below:

Year	Peak demand (MW)	Peak demand met (MW)	Peak deficit	
			MW	Percentage
2006-07	8,917	6,558	2,359	26.46
2007-08	8,672	7,340	1,332	15.36
2008-09	8,773	7,428	1,345	15.33
2009-10	9,786	7,407	2,379	24.31
2010-11	9,399	8,007	1,392	14.81

Source: Statistical data provided by the Company.

There remained a peak demand shortfall ranging between 1,332 to 2,379 MW (15 to 26 *per cent* of the peak demand) even after purchase of power. Consequently, the Company had to resort to rotational load shedding to the extent of 0.44 to 3.30 hours per day during 2006-11.

Disallowance of power purchase cost

PSERC disallowed ₹ 36.19 crore due to purchase of power at excessive rate and payment of UI surcharges.

We observed that due to insufficient transformation capacity, inadequate capacity of capacitor banks and heavy quantum of unmetered agricultural consumption, the Company could not achieve the target of T&D losses prescribed by the PSERC and consequently, the PSERC during 2006-09 disallowed ₹ 1,885.93 crore being the cost of 5,509 MUs purchased due to non achievement of the target of T&D losses prescribed by PSERC and during 2009-10, the PSERC disallowed ₹ 27.66 crore[‡] due to purchase of 102 MUs at the rates more than the limits prescribed by the PSERC. An amount of ₹ 8.53 crore was also disallowed being the unscheduled interchange (UI) surcharges paid by the Company, in excess of the quantity assessed by PSERC.

The Management, while admitting the facts, stated (August 2011) that short-term power purchase though could not be fully dispensed with, needs to be resorted to judiciously.

The Company needs to plan purchase of power from the economical alternative sources and live within the limits approved by PSERC by controlling various costs and reducing losses.

Sub-transmission & Distribution Losses

2.2.19 The distribution system is an important and essential link between the power generation sources and the ultimate consumers of electricity. For efficient functioning of the system, it must be ensured that there are minimum

[†] Power purchased through overdrawl/short term – 16,764 MUs x ₹ 3.02 (₹ 5.75 – average cost per unit of power purchased through overdrawl/short term - ₹ 2.73 – average cost of long term power purchase).

[‡] Difference between the actual cost of power purchase and arrived at on the basis of limits prescribed by the PSERC.

The Company has not evolved any system for segregation of the technical and commercial losses through energy audit at all levels.

losses in sub-transmission and distribution of the power. When energy is carried from the generation sources to the consumers, some energy is lost in the network. The losses at 33/66 KV transmission stations and lines are termed as sub-transmission losses, while those at 11 KV and below are termed as distribution losses. The losses are computed based on the difference between the energy received by the Distribution Company and energy sold to the consumers. The percentage of losses to power available indicates the effectiveness of Distribution system. The losses occur mainly on two counts, *i.e.*, technical and commercial. The technical losses occur due to inherent character of the equipment used for transmitting and distributing the power and resistance of the conductors through which the energy is carried from one place to another. On the other hand, the commercial losses occur due to theft of energy, defective meters, drawl of unmetered supply, non billing etc.

In accordance with National Electricity Policy notified by the Central Government in February 2005 and National Electricity Plan notified by the Central Electricity Authority in August 2007, the Company was required to draw up a time bound programme for segregation of the technical and commercial losses through energy audit at all levels. We observed that the Company has not evolved any system for segregation of the aggregate technical and commercial losses. Further, the Company had no system to compute the T&D losses separately, in the absence of which the overall T&D losses were compiled on the basis of difference between the total power available for sale and the power actually sold. Reduction in these losses will be the most significant step towards making the Company financially self-sustaining. The importance of reducing the losses can be gauged from the fact that one *per cent* decrease in losses could add ₹ 150.13 crore[§] to the revenue of the Company annually. The table below indicates the energy losses in the State as a whole for the last five years upto 2010-11:

(Million Units)

Sl. No	**Particulars**	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11 (provisional)**
1.	Energy available for sale in the State[Ϋ]	34,984	39,039	37,226	39,822	39,909
2.	Energy sold[Ϋ]	26,617	30,243	29,810	31,934	32,740
3.	Energy losses (1-2)	8,367	8,796	7,416	7,888	7,169
4.	Percentage of energy losses {(3/1) x 100}	23.92	22.53	19.92	19.81	17.96
5.	Percentage of losses allowed by PSERC	20.75	19.50	19.50	22.00[∞]	20.00
6	Excess losses (in MUs)	1,109	1,183	156	-	-
7.	Average realization rate per unit (in ₹)	3.12	3.45	3.65	3.77	-
8.	Value of excess losses (₹ in crore) (6 x 7)	346.01	408.14	56.94	-	-

Source: Statistical data provided by the Company.

§ Worked out on the basis of one *per cent* of energy available for sale during 2009-10 and average realisation rate per unit.

Ϋ These figures exclude the figures of energy sold outside State as the figures are not considered for calculation of T&D losses.

∞ Percentage of losses allowed was increased to 22 during 2009-10 on the basis of reassessment of consumption of AP consumers got conducted through an independent agency by the PSERC.

It would be seen from the above table that the T&D losses decreased from 23.92 *per cent* in 2006-07 to 17.96 *per cent* in 2010-11. We observed that though there was a decreasing trend in T&D losses, these were still on the higher side as compared to the maximum level of 15.5 *per cent* (transmission: 4 *per cent* and distribution : 11.5 *per cent*) fixed by the Central Electricity Authority.

The main reasons for such high energy losses were insufficient transformation capacity, inadequate capacity of capacitor banks, low power factor, heavy quantum of unmetered agricultural consumers and theft of electricity etc.

Inadequate transformation capacity

2.2.20 Transformer is a static device installed for stepping up or stepping down the voltage in transmission and distribution of electricity. The energy received at high voltage (132 KV, 66 KV, and 33 KV) from the sub-stations of the Transmission Companies is transformed to lower voltage (11 KV) at the 33/11 KV and 66/11 KV sub-stations of the Distribution Companies to make it usable by the consumers. In order to cater to the entire connected load, the transformation capacity should be adequate. The ideal ratio of transformation capacity to the connected load is 1:1. The table below indicates the details of transformation capacity at 33/11 KV and 66/11 KV sub-stations and the connected load of the consumers in the State during the period from 2006-11:

(in MVA)

Year	Transformation capacity	Connected load	Gap in transformation capacity	Ratio of transformation capacity to connected load
2005-06	10,979	22,373	11,394	0.49:1
2006-07	10,758	23,953	13,195	0.45:1
2007-08	11,363	25,464	14,101	0.45:1
2008-09	11,885	26,935	15,050	0.44:1
2009-10	12,611	29,470	16,859	0.43:1
2010-11	14,358	31,119	16,761	0.46:1

Source: Statistical data provided by the Company.

The ratio of transformation capacity to the total connected load ranged between 0.43:1 and 0.46:1 as against the ideal ratio of 1:1.

It can be seen from the above table that the ratio of transformation capacity to the total connected load ranged between 0.43:1 and 0.46:1. This represented a wide gap of transformation capacity. Such a high gap of transformation capacity leads to overloading of the system resulting in frequent tripping of power supply and adverse voltage fluctuations coupled with higher quantum of energy losses. The Company needs to take actions for narrowing down the huge gap.

Performance of Distribution Transformers

2.2.21 The PSERC had not fixed any norm for the failure of Distribution Transformers (DTRs), in the absence of which the norm for the failure of DTRs adopted by the Power Grid Corporation of India Limited (PGCIL) has been considered. The details of actual DTRs failed in the State *vis-a-vis* this

norm and the expenditure incurred on their repairs is depicted in the table below:

SI.No.	Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
1.	Number of DTRs at the close of the year	2,52,165	2,74,637	3,35,194	4,03,619	4,72,238
2.	DTRs Failures (in Number)	31,371	32,728	31,414	34,171	36,540
3.	Percentage of failures (2/1x100)	12.44	11.92	9.37	8.47	7.74
4.	Norm adopted by PGCIL (in percentage)	1.50	1.50	1.50	1.50	1.50
5.	Excess percentage of failure (3-4)	10.94	10.42	7.87	6.97	6.24
6.	Number of DTRs failed in excess of norms (2-(1x1.5%))	27,589	28,608	26,386	28,117	29,456
7.	Estimated expenditure on repair of failed DTRs (₹in crore)♦	34.13	41.24	46.63	46.30	55.49

Source: Statistical data provided by the Company.

Percentage of failure of DTR ranged between 7.74 *per cent* and 12.44 *per cent* during 2006-11.

It may be seen from the above table that though there had been reduction in the percentage of failure rate of DTRs, it was still higher than the bench mark of 1.5 *per cent*. Scrutiny of records revealed that out of the 20 circles, DTRs failure rate in five circles** was abnormally high at 9.6 to 24.3 *per cent*. The Management stated (August 2011) that these are the border districts and this position was due to stealing of parts of transformers etc. It is required that the Company should take adequate remedial measures to check this menace. The failure rate of DTRs in excess of the bench mark of 1.5 *per cent* resulted in an estimated avoidable expenditure of ₹ 223.79 crore on the repair of damaged DTRs during 2006-11.

One of the main reasons for higher failure rate of DTRs was overloading of the DTRs due to wide gap between the connected load and distribution transformation capacity. Other reasons for damage of transformers were internal defects, non installation of lightning arrestors, poor maintenance, storm etc. The Company needs to review the problem and take corrective measures to bring down the failure rate.

The Management stated (August 2011) that it planned to reduce the damage rate in rural and urban areas to less than one *per cent* and in AP feeders to less than 4 *per cent*. Further developments are awaited.

Performance of repaired Distribution Transformers

2.2.22 The Company undertakes repair of DTRs in its workshops as well as through outside agencies. The damage rates of repaired DTRs from own workshops ranged between 20.82 *per cent* to 23.89 *per cent* as compared to

♦ This has been worked out by multiplying the numbers of DTRs failed in excess of norms with average cost of repair per DTR.

** Amritsar Suburban, Gurdaspur, Faridkot, Ferozepur and Tarn Taran.

damaged rate of 8.96 *per cent* to 14.18 *per cent* of transformers got repaired from outside as shown in the table below:

Year	DTRs repaired at Company's Workshops			DTRs repaired from outside		
	Repaired DTRs installed (upto 31 March)	DTRs damaged	Damaged to installed DTRs (in *per cent*)	Repaired DTRs installed (upto 31 March)	DTRs damaged	Damaged to Installed DTRs (in *per cent*)
2006-07	55,693	13,303	23.89	28,053	3,977	14.18
2007-08	57,051	13,374	23.44	30,009	4,008	13.36
2008-09	57,760	12,312	21.32	30,861	3,969	12.86
2009-10	59,823	12,846	21.47	32,041	4,045	12.62
2010-11	63,370	13,193	20.82	35,116	3,147	8.96

This indicated poor workmanship of in-house workshops which warrants the Company for taking corrective action to improve the quality of DTRs repaired in its own workshops.

Delay in repair of Distribution Transformers

2.2.23 As per the general terms and conditions of purchase order for new transformers and rate contract for repair of old transformers from outside agencies, the suppliers were required to warranty the performance of DTRs for 1/1.5 years from the date of installation/supply and the repaired transformers were required to be returned after repair within 90/120 days of the intimation of their failure/damage. However, it was observed that 1,569 DTRs were awaiting lifting for repair and 3,847 DTRs were not returned back after repair at the end 2010-11. Out of these 3,847 DTRs, 1,379 DTRs valuing ₹ 4.61 crore were awaited from 41 firms which had been declared as non-active/dead firms and whose whereabouts were not known to the Company. An analysis of DTRs failed within warranty period during the audit period revealed that 18,197 DTRs (58.06 *per cent*) out of 31,342 DTRs failed within the warranty period were returned after repair with a delay of 11 days to 3,368 days after allowing the maximum permissible limit of 120 days.

1,379 damaged DTRs costing ₹ 4.61 crore, lifted for repair, had not been returned by 41 firms which have now been declared as non-active/dead.

This indicated lack of proper internal control mechanism and ineffective managerial control to ensure timely return of damaged transformers after repair.

Avoidavle expenditure on purchase of transformers

2.2.24 The Company placed (December 2009) order for purchase of 10,000 Distribution transformers of 6.3 KVA capacity on three firms i.e., Uttam Bharat Electricals Private Limited, Jaipur (UBE) for 1,000 transformers, Sangrur Industrial Corporation Limited, Sangrur (SIC) for 4,500 transformers and Punjab Transformers & Electronics Limited, Sangrur (PTE) for 4,500 transformers at the variable rate (with base date from 01 July 2009) of ₹ 23,885.01 per transformer. As per the standard terms and conditions of these Purchase Orders-cum-Contract Agreements entered into with the firms, the Company reserved the right to cancel the purchase order as a whole or in part

at any time prior to the manufacture of material against the purchase order. The supplies were scheduled to be completed by 18 April 2010. On the ground of comfortable stock position, the Company decided (5 February 2010) to defer receipt of supplies other than those transformers which had already been inspected by it. Accordingly, the Company accepted 3,365 transformers (UBE: 499, SIC: 1,254 and PTE: 1,612) upto 1 April 2010. In July 2010, the Company allowed UBE to restore the deferred supply and the firm supplied the entire balance quantity of 501 transformers by October 2010. Subsequently on 23 November 2010 the Company also allowed SIC and PTE to restore their deferred supply with the revised delivery period from January 2011 to March 2011.

In the meantime, the Chief Engineer (Store and Disposal) intimated (June 2010) the requirement of 16,400 transformers of 6.3 KVA for the year 2010-11. After taking into account the pending supplies against the previous purchase orders and availability of transformers in stock, the Company invited (July 2010) tenders for procurement of 8,600 transformers. The price bids were opened on 29 November 2010 and it was found that Technical Associates Limited, Lucknow who quoted the variable rate of ₹ 19,691.18 per transformer (base date as of 1 July 2010) was the L-1 firm and the Company placed (21 December 2010) purchase order on the firm for supply of 8,600 transformers. The rates offered by the L-2 and L-3 firms were ₹ 23,340.57 and ₹ 23,600.07 per transformer respectively.

We observed that while deciding to restore the deferred supply of pending purchase orders on 23 November 2010, when the Central Purchase Committee was going to consider the price bids of the subsequent tender, the Company failed to act with due diligence and did not conduct any survey/consider the declining trend in the rates of the transformers. Had the Company awaited outcome of opening of the price bid of new tender and exercised its right of cancelling the pending costly purchase orders, it could have saved at least ₹ 2.09 crore, by placing purchase order for the pending supply of 6,134 transformers on the L-2 and L-3 firms of the subsequent tender as per details given hereunder:

Sl. No.	**Name and status of the firm**	**Quantity offered** (Nos.)	**Quantity which could be considered for placing fresh orders for the pending supply** (Nos.)	**Equated variable rate with base date of 1 July 2010 in respect of new tenders** (₹)	**Equated variable rate with base date of 1 July 2010 in respect of previous purchase orders** (₹)	**Financial implication {4x(6-5)}** (₹)
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
1.	Hi-Tech Electricals, Rajpura L-2	1,750	1,750	23,340.57	26,934.27	62,88,975
2.	Saraf Industries, Rampura Phul L-3A	3,600	3,600	23,600.07	26,934.27	1,20,03,120
3.	Saraf Electricals Private Limited, Rampura Phul L-3B	5,000	784	23,600.07	26,934.27	26,14,013
	Total		**6,134**			**2,09,06,108**

Thus, failure of the management to avail the benefit of reduced rates obtained in the subsequent tender processed at the same time of resuming the deferred supplies against the previous tender resulted in loss of ₹ 2.09 crore to the Company. Continued purchase of transformers at high rates of previous tender, despite reduction of price in the subsequent tender was injudicious and it reflected poor commercial acumen of the management.

The Company needs to conduct market survey to assess the trend of the rates before taking any decision in such types of cases.

Capacitor Banks

2.2.25 Capacitor bank improves the power factor by regulating the current flow and voltage. In the event of voltage falling below normal, the situation can be set right by providing sufficient capacity of capacitor banks to the system as it improves the voltage profile and reduces dissipation of energy to a great extent thereby saving loss of energy.

Shortfall in addition of LT capacitor banks during 2006-11 led to loss of energy of 210.82 MUs costing ₹ 84.48 crore.

The position as regards LT capacitor banks is shown in ***Annexure-11***. It may be seen from the Annexure that against the targetted addition of 1,753 MVAR in LT capacitor banks during the audit period, the actual addition was only 1,127 MVAR. Thus, there was significant shortfall of 626 MVAR in addition of capacitor banks, which led to loss of energy of 210.82 MUs costing ₹ 84.48 crore.

The Management, while admitting the facts, stated (August 2011) that the capacitors on 11 KV feeders will be installed by December 2011 and on AP consumers within three years.

Non-replacement of the electro-mechanical meters with electronic meters

2.2.26 The Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 issued in March 2006 provided for compulsory replacement of the existing electro mechanical meters with static meters, generally known as electronic meters.

In contravention of the Central Electricity Authority Regulations, 2006, 16.14 lakh electro mechanical meters (25.42 *per cent*) out of the total 63.50 lakh installed meters were not replaced with electronic meters.

The Company failed to replace some of the electro mechanical meters with electronic meters without recording any reasons. At the end of June 2011, out of the total 63.50 lakh installed consumer meters, 16.14 lakh electro mechanical meters (25.42 *per cent*) were still to be replaced with electronic meters. Replacement of the electro mechanical meters would largely help the Company to earn more revenue by way of correct accounting of the energy consumption**.** The Company needs to pay attention to such simple measure to augment its resources.

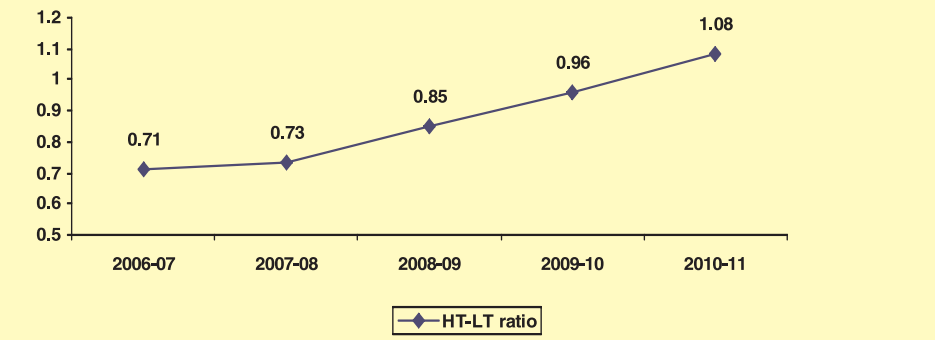
The Management, while admitting the facts, stated (August 2011) that it planned to replace the meters by March 2014.

Commercial losses

2.2.27 The majority of commercial losses relate to consumer metering and billing besides pilferage of energy. While the metering and billing aspects have been covered under implementation of R-APDRP scheme and Billing efficiency, respectively, the other observations relating to commercial losses are discussed below.

Implementation of LT less system

2.2.28 High voltage distribution System is an effective method of reduction of technical losses, prevention of theft, improved voltage profile and better consumer service. The GOI had also stressed (February 2001) the need to adopt LT less system of distribution through replacement of the existing LT lines by HT lines. The HT-LT ratio over the review period is depicted in the graph below:



It may be seen from the above graph that the HT: LT ratio had increased from 0.71:1 in 2006-07 to 1.08:1 in 2010-11. Thus, there was appreciable and significant improvement in the HT: LT ratio.

High incidence of theft

2.2.29 Substantial commercial losses are caused due to theft of energy by tampering of meters by the consumers and unauthorised tapping/hooking by the non-consumers. As per section 135 of the Electricity Act, 2003, theft of energy is an offence punishable under the Act. We observed that the Company failed to fix targets for number of checking by its operational staff. The number of checkings by the operational staff of the Company, number of theft cases, assessed amount and the amount realised thereagainst is given in ***Annexure-12***. An analysis of the annexure revealed that the PSERC had never fixed any target for checking of the connections. Further, the percentage of checking of consumers' premises showed decreasing trend from 36.31 *per cent* in 2007-08 to 28.23 *per cent* in 2010-11. Similarly, sharp downward trend was observed in the percentage of amount realised against the amount assessed on account of theft of energy. The percentage of amount realised to amount assessed ranged between 19.93 *per cent* in 2006-07 to 51.78 *per cent* in 2010-11. This indicated ineffective follow up of the theft cases detected. The Company needs to strengthen its measures against theft of energy.

Performance of Raid Team

2.2.30 In order to minimise the cases of pilferage/loss of energy and to save the Company from sustaining heavy financial losses on this account, Section 163 of the Electricity Act, 2003 provides that the licensee may enter the premises of a consumer for inspection and testing the apparatus.

The State Government set up (July 2008) five[∞] Anti Power Theft Police Stations to take cognizance of the complaints regarding theft of power made only in writing by the State Government or Punjab State Electricity Regulatory Commission or Chief Electrical Inspector or by an authorised officer of the Company.

The work of carrying out the checking/inspection and testing of the electrical installations at the consumers' premises was also entrusted to the Operation Wing as well as the Enforcement Officers of the Company in accordance with Regulation 37 of the Electricity Supply Code and Related Matters Regulations, 2007. The position of checking/inspection conducted by the Enforcement Wing of the Company during the audit period is tabulated below:

(₹ in crore)

Year	Total number of consumers as on 31 March	Targets for checking (Nos.)	No. of consumers checked	Percentage of checking to total nos. of consumers	Assessed amount (₹)	Realised amount (₹)	Percentage of realised amount to the assessed amount
2006-07	62,31,240	50,000	1,45,167	2.33	67.31	30.70	45.61
2007-08	63,73,890	50,000	1,83,408	2.88	67.95	20.91	30.77
2008-09	66,31,407	60,000	2,45,822	3.71	97.11	33.22	34.21
2009-10	69,18,145	1,85,000	2,12,120	3.07	129.45	37.97	29.33
2010-11	73,20,631	1,90,000	1,92,353	2.63	128.78	41.24	32.02
Total					**490.60**	**164.04**	

Source: Statistical data provided by the Company.

Percentage of realised amount to the assessed amount decreased from 45.61 *per cent* in 2006-07 to 32.02 *per cent* in 2010-11.

The above table shows that effective efforts were not made to recover the assessed amount as it decreased from 45.61 *per cent* to 32.02 *per cent* during 2006-11. The number of checking of meters (2.33 to 3.71 *per cent* of total number of consumers) also remained more or less at the same level. It also shows non-adherence of CEA guidelines for checking every meter at least once in five years. There is a need to increase the number of raids to detect cases of theft of energy.

Failure to recover penalty due to non-adherence of laid down procedures

2.2.31 The Punjab State Electricity Regulatory Commission (Electricity Supply Code and Related Matters), Regulations, 2007, *inter alia*, provided that

- in case of suspected theft of electricity at premises, the Authorised Officer would promptly inspect such premises in the presence of its occupant. If on inspection, he came to the conclusion that theft of

[∞] Patiala, Ludhiana, Jalandhar, Amritsar & Bathinda.

electricity was taking place, he would prepare a seizure memo and inspection report indicating therein the status of irregularity noticed. He would invariably record evidence substantiating theft of electricity and hand over a copy of the seizure memo and inspection report to the occupant/person present at the premises during the search;

- in the case of tampering of meter, such meter shall be taken out from the premises and packed in a card board box, duly sealed and witnessed by the consumer or his representative for testing in the metering equipment laboratories. The consumer would be informed of the proposed date of testing at least seven days in advance. The signature of the consumer or his representative should be obtained on the test result sheet and a copy thereof supplied to the consumer;

- after *prima facie* establishment of theft of electricity, the Authorised Officer would assess and demand the penal charges to be recovered.

The Company imposed (April 2008-March 2010) penalty of ₹ 48.74 lakh on 164 consumers in seven Operation Divisions of the Patiala Circle against theft of electricity. When the consumers moved the Consumer Disputes Redressal Forums and civil courts against the Company, the Forums/Courts disallowed the penalty on the ground that the procedures laid down in this regard were not properly followed by the Company. Appeals against the decisions of the Forums/Courts were not preferred as the legal Advisor of the Company expressed that these would not be sustainable due to non adherence of the laid down procedures by the field staff.

Audit scrutiny disclosed that out of 164 cases, in 106 cases (₹ 29.07 lakh), the Company failed to obtain signatures of the consumers/their representatives on the inspection report/seizure memo and did not hand over copies to the consumers. In 14 cases (₹ 4.08 lakh), the Company failed either to pack the meter in the card board box duly sealed and signed by the consumers while sending them to the testing laboratories or to obtain signatures of the consumers on the test result. In 44 cases (₹ 15.59 lakh), the Company failed to get the meter tested in the laboratories to establish theft of electricity. The Company neither fixed any responsibility for these lapses against the officers concerned nor taken any remedial action in this regard.

Thus, due to non adherence of the laid down procedures by the field staff of the Company, it could not recover ₹ 48.74 lakh from the defaulting consumers. The Company should monitor and ensure that the field staff strictly adhere to the laid down procedures in the cases of theft of energy to avoid such losses.

Billing Efficiency

2.2.32 As per the commercial circulars issued by the Company, the reading of energy consumption of each consumer is to be taken at the end of the notified billing cycle. After obtaining the meter readings, the Company issues bill to the consumers for consumption of energy. Sale of energy to metered

categories consists of two parts viz., metered and assessed units. The assessed units refer to the units billed to consumers in case meter reading is not available due to meter defects, door lock etc. and unmetered supply to AP consumers. Billing of all the consumers was being done at the division level. The domestic consumers were being billed on bi-monthly basis, while other consumers were being billed on monthly basis.

The efficiency in billing of energy lies in distribution/sale of maximum energy by the Company to its consumers and realise the revenue therefrom in time. Energy sold, unmetered supply to AP consumers, energy billed etc. is shown in the following table:

(Figures in MU)

Sl. No.	Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
1.	Energy sold within the State	26,617	30,243	29,810	31,934	32,740
2.	Unmetered supply to AP consumers	6,956	8,151	6,531	10,089	10,117
3.	Energy billed based on meter readings♣	19,661	22,092	23,279	21,845	22,623
4.	Percentage of metered supply to energy sold	73.87	73.05	78.09	68.41	69.10

Source: Statistical data provided by the Company.

It would be seen from the above that energy billed on the basis of meter readings during the audit period ranged between 68.41 to 78.09 *per cent* of the total energy sold, whereas the unmetered supply was in the range of 21.91 to 31.59 *per cent*. The Company needs to install meters on all the AP connections to attain 100 *per cent* billing based on meter readings.

Development of Billing Software

2.2.33 The Company placed (September 2007) a work order on The Department of Electronics and Accreditation of Computer Classes (DOEACC) Centre, Chandigarh for development of a browser based billing software for preparation of bills relating to DS/NRS, SP, MS, PL and AP♣ consumers. The implementation of the work was expected to cost ₹ four crore (₹ one crore for the development of software and ₹ three crore for other hardware items) and reduce the bill issuing time by 15 days.

The Company paid (December 2008) ₹ 28 lakh to DOEACC as 25 *per cent* advance payment in accordance with the provision of the work order. Another bill of ₹ 28 lakh remained unpaid with the Company towards preparation of the System Requirement Specification. In the meantime, R-APDRP was launched (July 2008) by GOI which included various software modules including billing software. Therefore, the Company cancelled (January 2010) the work order on the plea that this work would be covered under R-APDRP and it would not be prudent to proceed further for development of the new Browser based billing software. We observed that even after lapse of more

♣ This also includes unassessed billing units which was less than one *per cent*.

♣ DS: Domestic Supply, NRS: Non Residential Supply, SP: Small Power, MS: Medium Supply, PL: Public Lighting and AP: Agriculture Pumpsets

than one year after the cancellation of the order, no progress was made to develop the billing software by the Company under R-APDRP (March 2011).

The Management stated (August 2011) that it had placed order of IT implementation on Spanco in June 2011, which included development of billing software also. The fact, however, remains that there was delay in completion of work for more than two years.

Incorrect estimation of the agriculture consumption

2.2.34 Meters were not provided to all agricultural pumpsets (AP) consumers and only sample meters were installed. The AP consumption factor of a division is estimated by taking the readings of representative sample meters in that division. The aggregate consumption of the division is worked out by multiplying AP consumption factor with load of AP in that division. The consumption of all the divisions is then summed up to find the consumption of each Circle and then Zone and ultimately the total consumption of the State of Punjab.

Out of 11.43 lakh AP consumers (March 2011), meters had been installed only in case of 1.18 lakh AP consumers (including 1.05 lakh sample meters which were only for assessing energy losses not for billing) leaving a shortfall of 10.25 lakh connections (89.68 *per cent*)

Further, due to non availability of the data of verified actual connected load of the pumpsets on which the sample meters were installed, PSERC was not convinced of the correctness of AP consumption for the year 2007-08 and appointed (January 2009) ABPS Infrastructure Advisory Private Limited (Agency) for validation of the AP consumption. The Agency submitted its report in September 2009 and pointed out variations of 11.25 *per cent* and 10.20 *per cent* between the consumption reported by the Company to the PSERC and the consumption computed by the Agency for 21 months (for 2007-08 and for the first three quarters of 2008-09 respectively). Due to inconsistency in consumption figures, PSERC, while approving the tariff orders, did not approve 2909 MUs (1,128 MUs for 2007-08, 954 MUs for 2008-09 and 827 MUs for 2009-10) costing ₹ 723.16 crore. This not only resulted in non recovery of the AP subsidy from the State Government but also resulted in increase in T&D losses to that extent.

Due to inconsistency in AP consumption figures, PSERC did not approve AP consumption of 2,909 MUs costing ₹ 723.16 crore.

We observed that the Company has not established any scientific methodology for determination of the AP consumption. Efforts should be made by the Company to ascertain the actual AP consumption by installing meters in all the AP connections.

The Management stated (August 2011) that 100 *per cent* metering of AP consumers involved huge capital expenditure besides recurring expenditure for meter reading and further added that it was implementing Automated Meter Reading (AMR) system which provides the energy consumption for the AP feeders as recorded at the sub-station level. The fact, however, remains that

the Company has not established methodology for determination of the AP consumption so far.

Non recovery of security deposit

2.2.35 As per PSERC (Electricity Supply Code and Related Matters) Regulations, 2007 (effective from January 2008), consumers were required to maintain advance consumption deposit (ACD) with the Company equivalent to two and a half months consumption charges in the case of bimonthly billing and one and a half month in the case of monthly billing.

Due to non- taking of timely action, the Company failed to recover ACD of ₹ 155.95 crore from the consumers having connected load of more than 100 KW.

The Company was required to undertake review to ascertain the adequacy of the amount of security already received within twelve months after revision of the tariff and issue demand notices for the required additional ACD to the consumers. The consumers were liable to pay the additional security within 30 days from the date of service of notice. The Company, however, failed to comply with the above instructions upto June 2010. We observed that the Company conducted (June 2010) review and worked out the extra ACD recoverable amounting to ₹ 168.05 crore in respect of large supply, bulk supply, domestic and commercial consumers having connected load more than 100 KW for which demand notices were issued to the consumers. The Company could recover only ₹ 12.10 crore by April 2011. Thus, due to non-taking of timely action, the Company failed to recover ACD of ₹ 155.95 crore.

Payment of interest on security deposit at higher rates

2.2.36 As per the Electricity Act, 2003, the distribution licensee shall pay interest on the security deposits equivalent to the bank rate or more, as may be specified by the concerned State Commission. The PSERC (Electricity Supply Code and Related Matters) Regulations, 2007 provided that the Company was to pay interest to the consumers on ACD at the State Bank of India's (SBI) prime lending rate (PLR) in force on first April of the relevant year. We found that the Company paid interest on ACD at the rate of 12.25 *per cent* during 2008-09 and 2009-10, whereas it availed long term loans during the same period from commercial banks at the rate lower than 2 to 2.25 *per cent* of the SBI's PLR. Further, in the neighbouring States of Haryana and Rajasthan the State Electricity Regulatory Commissions directed to pay interest on the ACD amount at the bank rate viz. 6 *per cent*.

The Management stated (August 2011) that Company had paid the interest in accordance with direction of PSERC. Reply is not acceptable as the Company should have taken up the matter with PSERC to reconsider its decision and fixing the rate of interest on ACD amount commensurate with the bank rate. Due to failure of the Company to do so, it had to make payment of interest on ACD at higher rate than the prevailing market rate on long term loans resulting in extra expenditure of ₹ 24.90 crore. This would further increase considerably when compared with the bank rate.

Non-disconnection of connections having low power factor

2.2.37 Electricity Supply Regulations provided that it shall be incumbent upon every Large Supply Industrial consumer to maintain a monthly average power factor of not less than 90 *per cent*. In case of failure to do so, he shall pay a surcharge due to low power factor and in case power factor falls below 80 *per cent*, it must be brought up by the consumer within a period of 6 months failing which the connection shall be disconnected and will not be reconnected unless the monthly average power factor is improved to 90 *per cent* by the consumer, to the satisfaction of the Company.

A scrutiny of data pertaining to LS consumers in respect of 6 circles♠ for the period from November 2009 to December 2010 maintained in the Centralised Billing Cell, Patiala revealed that in case of 19 consumers, power factor remained less than 80 *per cent* continuously for more than six months, but no action was taken to disconnect the connections.

Revenue collection efficiency

2.2.38 As revenue from sale of energy is the main source of income of the Company, prompt collection of revenue assumes great significance. The salient features of the collection mechanism being followed by the Company are as follows:

- ❖ Consumers may make payments of the bills by cash, cheques or by demand draft.
- ❖ Revenue billed in respect of HT and LT services is generally collected by the revenue cashiers (RC) except in some areas where collection work is entrusted to certain private collection agencies.
- ❖ HT consumers are required to pay current charges within 10 days and LT consumers within 15 days from the date of bills, failing which the consumers are liable to pay additional charges of 5-10 *per cent* of the amount of the bill.

The table below indicates the balance amount outstanding to be collected at the beginning of the year, revenue billed during the year, revenue collected and the balance outstanding at the end of the year during last four years ending 2009-10*:

♠ Bathinda, Faridkot, Patiala, Sangrur, Muktsar and Ferozepur.

* Figures for 2010-11 are not available because of non-finalisation of Annual Accounts.

Outstanding dues increased from ₹ 1,331.37 crore in beginning of 2006-07 to ₹ 1,728.30 crore at the end of the year 2009-10.

(₹ in crore)

SI. No.	Particulars	2006-07	2007-08	2008-09	2009-10
1	Balance outstanding at the beginning of the year	1,331.37	1,495.96	1,464.37	1,644.41
2	Revenue billed during the year	7,726.76	8,684.72	9,853.80	9,655.02
3	Total amount due for realisation (1+2)	9,058.13	10,180.68	11,318.17	11,299.43
4	Amount realised during the year	7,562.10	8,715.99	9,673.64	9,571.13
5	Amount written off during the year	0.07	0.32	0.12	0.00
6	Balance outstanding at the end of the year	1,495.96	1,464.37	1,644.41	1,728.30
7	Percentage of amount realised to total dues (4/3)	83.48	85.61	85.47	84.70
8	Arrears in terms of No. of months of assessment	2.32	2.02	2.00	2.15

(Source: Annual Statements of Accounts)

We observed that:

- the balance dues outstanding increased from ₹ 1,331.37 crore in the beginning of 2006-07 to ₹ 1,728.30 crore at the end of the year 2009-10. The collection efficiency was only 85 *per cent* and has not improved over the years.
- Dues outstanding for more than three years amounted to ₹ 220.18 crore (12.74 *per cent* of the total dues) indicating ineffective follow up of the old debts.
- Group-wise analysis of the dues outstanding as on 31 March 2010 revealed that an amount of ₹ 118.60 crore was due from disconnected services.
- Age wise analysis of the dues of ₹ 1,728.30 crore revealed that ₹ 368.57 crore (21.33 *per cent*) was more than one year old which included ₹ 89.61 crore outstanding from the Municipal Corporation, Amritsar for more than 15 years and ₹ 90.90 crore outstanding from AP consumers relating to the period prior to 1 September 2005, when the State Government decided free supply of electricity to the AP consumers.

When the Company has means of disconnecting the services of defaulters, its collection efficiency of 85 *per cent* is not a good performance. We observed that the Company had not taken any action against the officers responsible for (i) non disconnection of the premises of the defaulting consumers in time and (ii) non filing of the recovery suits against the defaulting consumers. Though, the Company during the last two years fixed targets for reducing the level of defaulting amount, none of the Divisional/Circle/Zonal officer achieved these targets and no action was initiated against the defaulting officers.

The Company needs to improve its collection efficiency by resorting to timely disconnection and should also take action against the officers who do not realise the dues in time.

The Management stated (August 2011) that opening balance of sundry debtors for sale of power of every year included defaulting amount, the recovery of

which was beyond the control of field offices. If this amount was excluded, the collection efficiency works out to more than 99 *per cent* by comparing the revenue assessed during the year and amount realised during the year. The reply is not acceptable as the amount realised during the year also includes the recovery against the defaulting amount, record of which was not separately available. Further, the Company should also analyse old cases with a view to either recover the amount or write off the same after exploring all possibilities.

Short recovery of service connection charges from AP consumers

2.2.39 The State Government notified (September 2009) an incentive based Voluntary Disclosure Policy with a view to give last opportunity to the farmers (AP consumers) for declaration and regularisation of unauthorised extension of load and issued an order directing the PSERC for its implementation. As per this policy, the consumer was required to pay ₹ 1,000 per BHP[∞] for the extended load against the rate of ₹ 3,600 per BHP payable, as fixed by the PSERC on the basis of cost data of the Company, by a consumer seeking a new connection and/or extension in load. To implement the directive of the State Government, the PSERC relaxed the provisions regarding service connection charges for extension of load of the Supply Code. Accordingly the Company introduced the scheme w.e.f. 16 October 2009 which was valid till 31 January 2010. In order to safeguard its financial interest the Company before introduction of the scheme should have approached the Review Panel of PSERC to seek compensation on account of differential cost of ₹ 2,600 per BHP for implementing this policy, which amounted to ₹ 238.16 crore[♣] for extension of load of 9,44,529 BHP. However, the Company failed to initiate any action in this regard.

Embezzlement of cash

2.2.40 Commercial Accounting System of the Company *inter alia* provided that it was the duty of the Cashier to prepare pay-in-slips for cash to be deposited into the Bank and enter its details in the Remittance Register and Monthly Remittance into Bank Statement and Cash Book. These entries were to be checked and attested by the Assistant Executive Engineer (AEE)/Revenue Accountant (RA). AEE/RA was to follow up with the Bank to get the receipted copies of the pay-in-slips and ensure that the cash had been deposited with the Bank. The RA was also required to thoroughly check up the Bank Reconciliation Statement prepared by the Cashier to verify that all the deposits had been credited to the Company's account.

The Head Cashier of City Sub-Division, Muktsar collected cash from consumers but did not deposit ₹ 1.33 crore into the Bank during 1 December 2009 to 11 January 2010 and cash for chest of ₹ 0.01 crore was also embezzled. The RA and AEE of the Sub-Division, however, failed to exercise the day to day checks with regard to deposit of cash as per the instructions

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∞ British Horse Power = 0.746 KW.

♣ Extension of load (9,44,529 BHP) x ₹ 3,600 per BHP minus service connection charges actually recovered.

ibid. The Head Cashier was suspended on 13 January 2010 and show cause notices/charge-sheets were served upon AEE Incharge, RA, Head Cashier and Cashier. The Head Cashier was in police custody. The case was pending in the Court of Law (August 2011). Further developments were awaited (August 2011).

Non-compliance to the approved system of internal control coupled with lack of supervision facilitated embezzlement of cash of ₹ 1.34 crore.

Had the officers concerned exercised the required checks, the embezzlement of cash could have been avoided. Thus, non-following of the approved system of internal control coupled with lack of supervision on the activities of the cashier facilitated embezzlement of cash amounting to ₹ 1.34 crore.

Non filing of execution petition to recover the dues from the defaulting units

2.2.41 The Company filed (June/November 2008) three civil suits for recovery of the defaulting amount of ₹ 3.26 crore from the three firms. The civil suits were decided (July 2009 to November 2009) in favour of the Company. However, the Company did not file the execution petition for recovery of the defaulting amount from the defaulting units in the Courts of law even after lapse of about two years, without recording any reasons in this regard. The details of the civil suits are as under:

Non initiation for filing of execution petitions resulted in non realisation of dues of ₹ 3.26 crore.

Sl. No.	Name of the Firm	Defaulting Amount (₹ in lakh)	Date of filing of civil suit	Date of decision	Remarks
1	Pee Iron and Steel Company (Pvt.) Ltd., Bhankarpur, Patiala.	233.09	June 2008	August 2009	Decided in favour of Company.
2	Sterling Cold Store, Mubarkarpur, Patiala.	15.61	June 2008	November 2009	-do-
3	Jay Enn Casting Ltd., Samalheri, Lalru, Patiala.	76.85	November 2008	July 2009	-do-
	Total:	**325.55**			

Thus, non initiation of action by the Company for filing of execution petitions resulted in non realisation of dues of ₹ 3.26 crore from the defaulting units.

Financial Management

2.2.42 Efficient fund management serves as a tool for decision making, for optimum utilisation of the available resources and borrowings at favourable terms at appropriate time. The financial management of the Company includes revenue collection, billing, borrowings, grants, transfer of funds, interest recovery/payments, restructuring of loans, security deposits, bank reconciliations and other related transactions. While the revenue and billing have been dealt in the preceding paragraphs, the other areas are discussed below.

The following table depicts the details of cash inflow and outflow of the Company for four years ending 31 March 2010:

(₹ in crore)

Sl.No.	Particulars	2006-07	2007-08	2008-09	2009-10
Cash Inflow					
1.	Net Profit/(Loss)	(1,626.39)	(1,389.60)	(1,041.10)	(1,301.52)
2.	Add: adjustments	(527.60)	(1,981.22)	(1,446.83)	(1,867.74)
3.	Operating activities	2,422.27	4,505.07	3,511.80	5,010.06
4.	Investing activities	17.55	17.15	570.52	414.46
5.	Financing activities	2,832.62	3,720.87	3,110.25	3,222.71
	Total	**3,118.45**	**4,872.27**	**4,704.64**	**5,477.97**
Cash outflow					
6.	Operating activities	1,085.83	1,419.44	1,880.71	1,505.19
7.	Investing activities	1,927.11	1,963.19	2,580.51	2,615.97
8.	Financing activities	106.99	1,362.34	99.25	1,140.24
	Total	**3,119.93**	**4,744.97**	**4,560.47**	**5,261.40**
	Net increase/decrease in cash and cash equivalent	**(1.48)**	**127.30**	**144.17**	**216.57**

Source: Annual Statements of Accounts of the Company.

It would be seen from the above table that though there was decrease in cash inflow during 2006-07, it increased from ₹ 127.30 crore in 2007-08 to ₹ 216.57 crore in 2009-10. We observed that dependence on borrowed funds increased during the audit period as borrowings increased from ₹ 11,285.24 crore in 2006-07 to ₹ 17,336.68 crore (53.62 *per cent*) at the end of 2009-10. The level of borrowing is heavy involving huge payments of interest and there is an urgent need to optimise the internal resource generations by improving the billing and collection efficiency, vigorous pursuance of the outstanding dues etc.

The Management stated (August 2011) that working capital loans have increased mainly due to disallowance of expenditure by the PSERC. The contention of the Management is not justifiable as the disallowance of expenses by the PSERC was due to failure of the Company to achieve performance norms fixed by the PSERC.

Release of tubewell connections in waterlogged area

2.2.43 Clause 6 of General Conditions of Distribution License as contained in Appendix-3A of Punjab State Electricity Regulatory Commission (Conduct of Business) Regulations, 2005 provided that the distribution licensee should not show undue preference to any person in the distribution or supply of electricity or rendering of services in the area of supply.

To contain water logging in 332 villages of Mukatsar, Ferozepur and Faridkot Districts, the Secretary, Irrigation & Power, Government of Punjab, desired (March 2008) that all the tubewell connections in these villages need to be released at the earliest. The Company accorded (April 2008) its approval for release of tubewell connections on priority in the above water logged villages. The Company requested (June 2008) the State Government for a grant of ₹ 450 crore for this purpose which was declined due to the paucity of funds. It was further clarified (October 2008) by the Government that the Company was not to spend anything on release of tubewell connections in the water logged area. However, if the farmers were willing to get the tubewell installed at their own expenses in the water logged area, the same should be installed on priority.

Despite the above directions/clarifications, the Company placed (27 March 2009) eight work orders to release 37,156 tubewell connections in the water logged area at a cost of ₹ 359.29 crore at its own cost with funding arrangement: being 76 *per cent* as loan from Rural Electrification Corporation and remaining 8 *per cent* through its own contribution and 16 *per cent* on account of service connection charges recoverable from the consumers. This move clearly shows an undue preference to a particular area of supply at the cost of other consumers of the State and thus, required the approval of the PSERC. The Company, without any concurrence of the PSERC released 35,342 tubewell connections and an expenditure of ₹ 227.98 crore was incurred up to March 2011.

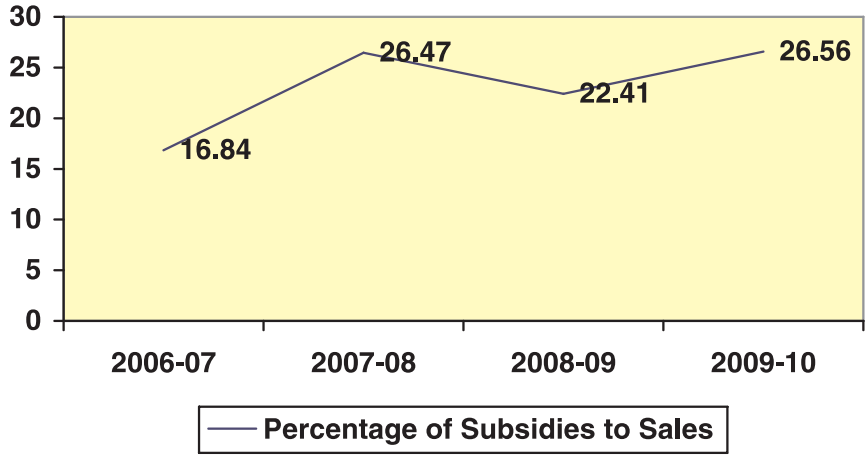
As the State Government had already shown its reluctance to provide the grant for this scheme and the concurrence of PSERC was not taken for release of these connections, the entire expenditure on this scheme could not be justified in audit.

Subsidy Support and Cross Subsidisation

2.2.44 There is an urgent need for ensuring recovery of cost of service from the consumers to make the power sector sustainable. The State Government is providing subsidy with a view to ensure supply of power to specific category of consumers at concessional rates of tariff.

Subsidy Support

2.2.45 The graph below indicates the revenue subsidy support from State Government (against concessional tariff) as a percentage of sales for the last four years ending 31 March 2010*:



It is evident from the above that subsidy support from the Government is

* Sales figures are not available due to non-finalisation of annual accounts for the year 2010-11.

showing increasing trend from 16.84 *per cent* in 2006-07 to 26.56 *per cent* in 2009-10. Further, against the subsidy claim of ₹ 13,324.43 crore over the period 2006-11, ₹ 13,393.37 crore was actually paid by the State Government as detailed in the table below:

(₹ in crore)

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
Opening balance	7.64	391.88	97.83	(181.45)	(193.55)
Add: Due from State Government during the year	1,808.04	2,553.99	2,322.45	3,132.15	3,500.16
Less: Received during the year	1,423.80	2,848.04	2601.73	3,144.25	3,375.55
Closing balance	391.88	97.83	(181.45)	(193.55)	(68.94)

Source: Tariff Orders issued by the PSERC.

It may be seen that the State Government had paid excess subsidy of ₹ 68.94 crore upto the year 2010-11. Main reason for payment of excess subsidy was due to the fact that PSERC allowed subsidy on the basis of estimated AP consumption whereas figures of actual consumption was available almost after two years.

The Management stated (August 2011) that any excess/short payment of subsidy pertaining to earlier years was adjusted by the PSERC in its subsequent tariff orders.

Cross subsidisation

2.2.46 Section 61 of the Electricity Act, 2003 stipulates that the tariff should progressively reflect the average cost of supply (ACOS) of electricity and also reduce the cross subsidy in a phased manner as specified by the Commission. The National Tariff Policy envisaged that the tariff of all categories of consumers should range within plus or minus 20 *per cent* of the ACOS by the year 2010-11. The position of cross-subsidies in various major categories is depicted in the table below:

Particulars	2006-07		2007-08		2008-09		2009-10	
Average Cost of supply (ACOS) (paise)	370.49		388.29		397.10		417.67	
Average Revenue from								
	Paise per unit	**Percentage of ACOS**	**Paise per unit**	**Percentage of ACOS**	**Paise per unit**	**Percentage of ACOS**	**Paise per unit**	**Percentage of ACOS**
Domestic	273.66	73.86	253.49	65.28	267.80	67.44	293.36	70.24
Commercial	447.21	120.71	430.78	110.94	458.60	115.49	492.81	117.99
Industrial	371.26	100.21	367.84	94.73	394.02	99.22	430.07	102.97
Agricultural	180.54	48.73	227.75	58.65	245.70	61.87	267.02	63.93
Others*	354.43	95.67	449.27	115.70	508.18	127.97	388.85	93.10

Source: Annual Statements of Accounts of the Company.

* Including Railways, Public Works, Street lighting, etc.

It may be seen from the above table that the cross subsidies to the domestic and agricultural categories were more than 20 *per cent* of the ACOS during the audit period. These categories were cross subsidised by the commercial and industrial consumers.

The Management stated (August 2011) that it is the prerogative of the PSERC to fix the level of cross subsidy.

There is a need to correct this imbalance by progressively and gradually reducing the existing cross subsidies levels.

Tariff Fixation

2.2.47 The financial viability of the Company depends upon generation of surplus (including fair returns) from the operations to finance their operating needs and future capital expansion programmes by adopting prudent financial practices. Revenue collection is the main source of generation of funds for the Company. While other aspects relating to revenue collection have been discussed in the preceding paragraphs, the issues relating to tariff are discussed here under:

The tariff structure of the power distribution company is subject to revision approved by the PSERC after the objections, if any, received against the Annual Revenue Requirement (ARR) petition filed by them within the stipulated date. The Company was required to file the ARR for each year 120 days before commencement of the respective year. The PSERC accepts the application filed by the Company with such modifications/conditions as may be deemed just and appropriate and after considering all suggestions and objections from the public and other stakeholders. The table below shows the due date of filing ARR, actual date of filing, date of approval of tariff petition and the effective date of the revised tariff:

Year	Due date of filing	Actual date of filing	Delay in days	Date of approval	Effective date
2006-07	30-11-2005	30-11-2005	-	10-05-2006	01-04-2006
2007-08	30-11-2006	*Not filed*[††]	-	17-09-2007	01-09-2007
2008-09	30-11-2007	12-02-2008	73	03-07-2008	01-04-2008
2009-10	30-11-2008	29-12-2008	28	08-09-2009	01-04-2009
2010-11	30-11-2009	30-11-2009	-	23-04-2010	01-04-2010

Source: Tariff Orders issued by the PSERC.

Non-filing of the ARR petition for 2007-08 by the stipulated date resulted in rejection of claim for ₹ 115.19 crore.

From the above, it may be seen that the ARR petitions were filed belatedly for all the years except 2006-07 and 2010-11. Non-filing of the ARR petition for 2007-08 by the stipulated date resulted in rejection of claim for ₹ 115.19 crore as interest payment on non/delayed receipt of subsidy from the State Government during 2007-08.

The Management stated (August 2011) that the delay was due to delay in preparation of cost of supply data to be submitted to the PSERC. The reply is

[††] For 2007-08, the ARR petition was not filed by the Company and the PSERC revised the tariff *suo motu*.

not acceptable as the cost of supply data was to be prepared by one of the wings of the Company and the delay could have been avoided by implementing effective monitoring system to ensure preparation/submission of requisite data in time.

Detailed analysis revealed that the extent of tariff was lower than the breakeven levels (in percentage terms) of revenue from sale of power at the present level of operations and efficiency for the last four years ending 31 March 2010 as shown in the table below:

(Amount: ₹ in crore)

Year	Sales (excluding subsidy)	Variable costs	Fixed costs	Contribution	Deficit in recovery of fixed costs	Deficit as percentage of sales
(1)	(2)	(3)	(4)	(5) = (2) – (3)	(6) = (4) – (5)	(7)={(6)/ (2)} X 100
2006-07	7,284.99	7,036.43	3,298.76	248.56	3,050.20	41.87
2007-08	8,234.47	8,838.74	3,633.75	(604.27)	4,238.02	51.47
2008-09	9,313.38	8,794.96	4,161.33	518.42	3,642.91	39.11
2009-10	9,065.72	8,812.82	4,698.72	252.90	4,445.82	49.04

Source: Annual Statements of Accounts of the Company.

It could be seen from above table that the extent of tariff deficit ranging between 39.11 and 51.47 *per cent* was lower than the breakeven levels during the audit period. During 2007-08, the sales were not sufficient even to recover the variable costs.

Though it appears that the tariff is on lower side and needs to be revised for recovery of the costs, it may be highlighted here that the same can be brought in by improving operational efficiency viz. reduction in/control of T&D losses, conversion of LT lines to HT lines, metering of unmetered connections, improving billing and collection efficiency, rationalisation of manpower, checking of excessive borrowings etc. It was also observed from the tariff orders that PSERC disallowed ₹ 1,282.81 crore on account of excessive employee cost, ₹ 1,619.89 crore on account of interest on loans in excess of the norms and ₹ 1,885.93 crore on account of power purchase due to non achievement of targets of T&D losses during the audit period.

In addition to the above, we observed that:

- The Company had not initiated any action (January 2011) for the implementation of Multi Year Tariff framework as envisaged in the National Tariff Policy.
- The Company, in spite of repeated requests of PSERC, had not furnished (January 2011) a comprehensive proposal for two part tariff featuring separate fixed and variable charges and time differentiated tariff for large consumers (say consumers with demand exceeding 1 MW).

The Management while admitting the facts stated (August 2011) that work order for conducting study on two part tariff had already been issued and study was in process.

Consumer Satisfaction

2.2.48 One of the key elements of the Power Sector Reforms was to protect the interest of the consumers and to ensure better quality of service to them. The consumers often face problems relating to supply of power such as non-availability of the distribution system for the release of new connections or extension of connected load, frequent tripping on lines and/ or transformers and improper metering and billing.

The Company was required to introduce consumer friendly actions like introduction of computerized billing, online bill payment, establishment of customer care centre, etc. to enhance satisfaction of consumers and reduce the advent of grievances among them. We observed that the Company has taken some of the following measures for consumer satisfaction:

- 10 customer care centres have become operational in five towns of Punjab namely, Amritsar, Jalandhar, Ludhiana, Bhathinda and Mohali.
- Electricity call centre has been made operational for registration of 'No Supply' complaints from 6 cities of Punjab i.e. Patiala, Jalandhar, Mohali, Amritsar, Bathinda and Ludhiana.
- Multiple bill payments options have been provided to the customers i.e. e-payment, Bill payment Machines (60 no's) and Easy Bill Collection Suvidha facility (provided in 15 main cities of Punjab).
- Segregation of commercial and technical functions at division level has been implemented in Patiala, Jalandhar, Amritsar, Bathinda and Nabha for improving services to the consumers.

The Company needs to increase the pace and scope of these measures for optimum satisfaction of the consumers.

Energy Conservation

2.2.49 Recognising the fact that efficient use of energy and its conservation is the least-cost option to mitigate the gap between demand and supply, the GOI enacted the Energy Conservation Act, 2001. The conservation of energy being a multi-faceted activity, the Act provides both promotional and regulatory roles on the part of various organisations. The promotional role includes awareness campaigns, education and training, demonstration projects, R & D and feasibility studies. The regulatory role includes framing rules for mandatory audits for large energy consumers, devising norms of energy consumption for various sectors, implementation of standards and provision of fiscal and financial incentives.

We observed that the Company had not drawn any comprehensive demand side management (DSM) plan for energy conservation. It was only in January and March 2011, when the Company entered into agreements with two firms for implementation of "Bachat Lamp Yojna (BLY)" to replace the present inefficient incandescent lamps with compact fluorescent lamps of 49 lakh

domestic consumers in a phased manner. Further, developments were awaited (April 2011).

The Management stated (August 2011) that the draft regulations of the Company for DSM have been submitted to the PSERC for approval. Further, due to little data available on savings achieved in the field of BLY and replacement of ordinary pumpsets with efficient pumpsets, the investors are not showing interest in projects.

Clean Development Mechanism

2.2.50 Clean Development Mechanism (CDM), a project of United Nations allows emission reduction projects in developing countries to earn certified emission reduction (CER) credits popularly known as carbon credits, each equivalent to one tonne of carbon dioxide (CO_2). These CERs can be traded and sold. The United Nations Framework Convention on Climate Change (UNFCC), the apex body for CDM projects, had developed methodologies under which the transmission & distribution (T&D) loss reduction projects become eligible for CDM. According to these methodologies, the implementation of energy efficient measures for T&D loss reduction includes the following:

- Up-grading the voltage on a transmission/distribution system and
- Replacing existing transformers with more efficient transformers.

We observed that the Company got sanctioned (September-November 2006) 40 schemes from REC for conversion of low voltage to high voltage distribution system of all the agricultural feeders and introduced (January 2011) a scheme for replacement of incandescent lamps with Compact Fluorescent Lamps (CFL) under Bachat Lamp Yojna. The scheme of conversion of LVDS to HVDS and Bachat Lamp Yojna were eligible for benefits under CDM and the Company by registering these schemes with UNFCC under CDM could avail the benefits of carbon credits on account of less emission of green house gases, but it could not avail any financial benefit under the Clean Development Mechanism due to non registration/non-completion of these schemes.

The Management stated (August 2011) that the entire requirement to avail carbon credits has been completed and the project was at the final stage of registration with UNFCC. Further developments are awaited.

Energy Audit

2.2.51 A concept of comprehensive energy audit was put in place with the objective to identifying the areas of energy losses and take steps to reduce the same through system improvements besides accurately accounting for the units purchased/ sold and losses at each level. The main objectives of energy audit are as follows:

- better and more accurate monitoring of the consumption of electricity by consumers;
- elimination of wastages;

- ❖ reduction of downtime of equipment;
- ❖ massive savings in operational costs and increase in revenue, etc.

We observed that yearly targets for energy audit were not fixed by the Company. In the absence of the yearly targets and achievements thereagainst, we were unable to comment on the steps being taken by the Company for carrying out the energy audit. Further, the PSERC observed in its tariff order (2010-11) that circle-wise energy audit needs to be done. Time bound programme to train sufficient number of engineers to acquire Bureau of Energy Efficiency Certification to work as energy auditors be chalked out. There was no visible progress with regard to undertaking comprehensive energy audit down to the distribution level.

Monitoring by top Management

2.2.52 The Power Distribution Company plays an important role in the State economy. For such a giant organisation to succeed in operating economically, efficiently and effectively, there has to be a Management Information System (MIS) for monitoring by top management.

Our review of the system existing in this regard revealed the following:

- The Company did not devise a proper management information system to evaluate power demand and supply position in the State to take timely decisions regarding long term power purchase agreements and demand side management measures to over come energy / peak shortages.
- The Company did not have a system to minimise the delay in decision making process and for monitoring adherence to completion schedule in implementation of the schemes especially in case of execution of schemes through outsourcing on turnkey basis.
- The Company did not have a proper system for monitoring adherence to performance parameters and targets.
- Availability of online data is an important requirement nowadays for taking speedy decisions which has not been done so for (April 2011).

The Management stated (August 2011) that it has awarded two projects for development of on line Management Information System for speedy decision making and monitoring of performance and achievement of targets. Further developments were awaited.

Conclusion

Performance audit of distribution of power by the Company disclosed the following:

- ➢ **The Company failed to recover its cost of operations. Its accumulated losses increased by 62.41 *per cent* from ₹ 5,980.52 crore in 2006-07 to ₹ 9,712.75 crore in 2009-10 and the entire capital including reserves was eroded by 2008-09.**

- **The Company was not able to derive the full benefits of the schemes introduced for strengthening of distribution system and failed to implement them economically, efficiently and effectively.**

- **The Company never achieved the demand of power and the power deficit increased by 188.65 *per cent* from 5,376 MUs in 2006-07 to 15,518 MUs in 2010-11. To meet with the chronic deficit of power, it resorted to unplanned purchase of power through short term power purchase agreements at exorbitant higher rates.**

- **The Company failed consistently to achieve the performance parameters regarding damage rate of distribution transformers, addition of capacitor banks, replacement of electro-mechanical meters with electronic meters and shifting of meters outside the premises of the consumers.**

  The Company also failed to achieve the targets set by PSERC which led to disallowance of huge expenses which could not be realised through tariff.

- **The Company failed to develop conclusive methodology for accurate assessment of power consumed by AP consumers.**

- **The Company failed to take adequate and effective steps for recovery of outstanding dues, which increased by 30 *per cent* from ₹ 1,331.37 crore to ₹ 1,728.30 crore during 2006-10.**

- **The Company failed to fix yearly targets/milestones for carrying out the energy audit, segregation of Aggregate Technical and Commercial (AT&C) losses and checking of consumer premises to detect theft of energy.**

Recommendations

The Company needs to:

- **make the plans to bring out the system upgradation, reduction of T&D losses and power thefts to generate sources of additional revenue to make the power distribution commercially viable.**

- **bring more professionalism in decision making and devise a system at the apex level to monitor and ensure the timely implementation of the various schemes for strengthening of distribution network system.**

- **explore the sources of availability of power at economical rates and consider the desirability to enter into long term power purchase agreements to meet the shortages of power in the State.**

- **strive to achieve performance parameters and targets set by PSERC, failing which accountability should be fixed against the officials at fault.**

- **attain 100 *per cent* metering in respect of AP consumers for accurate assessment of AP consumption.**

- **take effective steps for recovery of outstanding dues.**

- **fix yearly targets/ milestones for carrying out the energy audit, segregation of AT&C losses and checking of consumer premises to detect theft of energy.**

We referred the matter to the State Government in May 2011, their reply had not been received (September 2011).