



सत्यमेव जयते

# REPORT

OF THE

COMPTROLLER AND AUDITOR GENERAL  
OF INDIA

FOR THE YEAR 1974-75

(COMMERCIAL)

IX  
53-B-2

GOVERNMENT OF WEST BENGAL

17  
53-8-2

## ERRATA

Page No.	Para No.	Line No.	For	Read
11	9·01	Table-column 1—last item	.. Seles	.. Sales
13	10·02	2nd line above the 2nd table	customers	.. customer
13	10·02	Last column of the 2nd table	..	Put 77 against 1973-74
17	14·02	Last but one line of the page	.. clearance	.. clearance
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20	4	13th line	.. .. 300	200
21	5·03	6th line from bottom of page	.. 96	95
22	6	7th line of the para	.. 0·47	0·37
34	5·03	1st and 2nd sentences below the table	..	Put full stop (.) after the sentences
40	6·01	Table-column 3—last but three item	11688·86	11868·66
45	6·06	Second sub-para of the page—5th line	boiiers	.. boilers
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56	8·04(b)	14th line of the sub-para	.. is	in
71	10·02	Note below table—3rd line	.. interest	.. interest
71	10·03	5th line from bottom of page	.. Electric	.. Electric
74	10·03	Note below 1st table—1st line	fue	fuel
77	12·02	1st line	.. .. organisations	.. organisation
84	13·01	Table—figure against 1974-75	.. 2153·36	2158·36
90	4·02	Table	.. .. serial nos. 1 and 2 under column 1 may be deleted.	
92	5	Table—1st line against item II under column 7	50 S.D.,	.. 50 S.D.,
93	5	Table—5th column—last line	510·52	501·52
96	6·08	2nd line	.. .. kilometers	.. kilometres
96	6·08	3rd line	.. .. Management,	.. Management
96	6·08	Table—item (iv) under 2nd column	581	591
99	7·02	Table—serial 7	.. .. (item 5+6)	(items 5+6)
100	7·03	4th line from bottom of page	.. of loans ;	on loans ;
102	8·01	Table—2nd item under 1st column	5	15
104	8·07	Table—column 1—item 1	.. examiner	.. Examiner
108	9·03	Table—last item under last column	148·7	158·7
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**1974-75**

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## **PREFATORY REMARKS**

Government commercial concerns, the accounts of which are subject to audit by the Comptroller and Auditor General of India, fall under the following categories :—

- (i) Government Companies;
- (ii) Statutory Corporations; and
- (iii) Departmentally managed commercial undertakings.

This Report deals with the results of audit of the accounts of Government Companies and Statutory Corporations, including West Bengal State Electricity Board. The Report of the Comptroller and Auditor General of India (Civil) contains the results of audit relating to departmentally managed commercial undertakings.

2. In the case of Government Companies, audit is conducted by professional auditors appointed on the advice of the Comptroller and Auditor General, but the latter is authorised under Section 619(3) of the Companies Act, 1956 to conduct a supplementary or test audit. He is also empowered to comment upon or supplement the report submitted by the professional auditors. The Companies Act further empowers the Comptroller and Auditor General to issue directives to the auditors in regard to the performance of their functions. In November 1962 such directives were issued to the auditors for looking into certain specific aspects of the working of Government Companies. These were revised in December 1965 and February 1969.

3. Government have invested funds by way of loans and advances amounting to Rs.1237.47 lakhs up to 31st March 1975 in one public limited company, viz. the Calcutta Tramways Company Limited whose accounts are not subject to audit by the Comptroller and Auditor General. The Company is under the management of the Government of West Bengal since 19th July 1967.

4. In respect of Calcutta State Transport Corporation, North Bengal State Transport Corporation, Durgapur State Transport Corporation and West Bengal State Electricity Board, the Comptroller and Auditor General is the sole Auditor, while in respect of West Bengal State Warehousing Corporation and West Bengal Financial Corporation, he has the right to conduct the audit of the concerns independently of the audit done by the professional

auditors appointed under the respective Acts. Separate Audit Reports are forwarded to the State Government annually in respect of Calcutta State Transport Corporation, North Bengal State Transport Corporation and West Bengal State Electricity Board for being presented to the State Legislature in terms of the provisions contained in the relevant Acts under which they are constituted.

5. The points brought out in this Report are those which have come to notice during the course of test audit of the accounts of the above undertakings. They are not intended to convey or to be understood as conveying any general reflection on the financial administration of the undertakings concerned.



## CHAPTER I

### SECTION I

#### GOVERNMENT COMPANIES

##### Introduction

There were 22 companies of the State Government as on 31st March 1975 as against 17 on 31st March 1974. During 1974-75, four new companies, *viz.* West Bengal Livestock Processing Development Corporation Limited, West Bengal Tourism Development Corporation Limited, West Bengal Forest Development Corporation Limited and Basumati Corporation Limited were incorporated. One company, *viz.* West Bengal Electronics Industry Development Corporation Limited was incorporated during 1973-74 as a subsidiary of West Bengal Industrial Development Corporation Limited but was converted into a Government Company during 1974-75. The aggregate paid-up capital of the companies which submitted accounts for the year 1974-75 amounted to Rs.3302.50 lakhs, registering an increase of Rs.334.73 lakhs during the year.

Out of 22 companies, 12 companies (including one company incorporated in 1974-75) submitted their accounts for 1974-75 for audit. The accounts of three other companies incorporated in 1974-75 were not due. Six other companies, *viz.* West Bengal Small Industries Corporation Limited, Electro-Medical and Allied Industries Limited, West Bengal Handloom and Powerloom Development Corporation Limited, Westinghouse Saxby Farmer Limited, West Bengal Agro-Industries Corporation Limited and West Bengal Pharmaceutical and Phytochemical Development Corporation Limited did not submit their accounts for 1974-75 till December 1975 and one company, *viz.* West Bengal Dairy and Poultry Development Corporation Limited did not submit accounts even for the year ending 30th June 1974.

A synoptic statement showing the summarised financial results of the working of 15 companies, on the basis of their latest available accounts, is given in Annexure 'A'.

##### 2. Profits and Losses

According to the annual accounts for 1974-75 submitted by 12 companies, there was a total net loss of Rs.481.51 lakhs during 1974-75 as against a total net loss of Rs.465.43 lakhs during 1973-74 in respect of 10 companies. Only 3 companies, *viz.* West Bengal Industrial Development Corporation Limited, West Bengal State Textile Corporation Limited and West Bengal Essential Commodities Supply Corporation Limited earned profits aggregating Rs.39.60 lakhs against their paid-up capital of Rs.374.42 lakhs. The nine other companies with aggregate paid-up capital of Rs.2928.08 lakhs sustained losses totalling Rs.521.11 lakhs.

In each of the following companies the cumulative loss up to 1974-75 was more than the paid-up capital:

	Paid-up capital	Cumulative loss
(In lakhs of Rupees)		
Kalyani Spinning Mills Limited .. .. .	158.21	566.11
Durgapur Projects Limited .. .. .	2056.58	2324.25
Durgapur Chemicals Limited .. .. .	431.40	878.04
West Bengal Sugar Industries Development Corporation Limited ..	25.00	32.38

Of the six companies which did not submit their accounts for 1974-75, two, *viz.* Westinghouse Saxby Farmer Limited and West Bengal Handloom and Powerloom Development Corporation Limited incurred losses aggregating Rs.42.43 lakhs during 1973-74. The cumulative loss of Westinghouse Saxby Farmer Limited was Rs.372.64 lakhs against its paid-up capital of Rs.25 lakhs of which shares valued at Rs.12.75 lakhs are held by the State Government. West Bengal Agro-Industries Corporation Limited showed a net profit of Rs.1.55 lakhs in 1973-74 as against Rs.9.35 lakhs in the previous year.

### 3. Loans

Of the 12 companies which submitted accounts for 1974-75, five companies, *viz.* Kalyani Spinning Mills Limited, Durgapur Projects Limited, Durgapur Chemicals Limited, West Bengal Industrial Development Corporation Limited and West Bengal Essential Commodities Supply Corporation Limited obtained long-term loans to the extent of Rs.474.97 lakhs during the year. Loan liabilities to the extent of Rs.34.61 lakhs were liquidated in the same year by two companies, *viz.* Durgapur Projects Limited (Rs.0.28 lakh) and Durgapur Chemicals Limited (Rs.34.33 lakhs).

### 4. Guarantees

Government guaranteed loans to the extent of Rs.526.82 lakhs obtained by the following companies during 1974-75 :

(In lakhs of Rupees)	
(a) Bonds issued by West Bengal Industrial Development Corporation Limited	220.00
(b) Long-term loan taken from a bank by Durgapur Chemicals Limited	55.86
(c) Term loan taken from a bank by West Bengal Sugar Industries Development Corporation Limited	93.17
(d) Cash Credits obtained from bank by	
(i) Kalyani Spinning Mills Limited .. .. .	108.70
(ii) Durgapur Chemicals Limited .. .. .	49.09

## SECTION II

## WESTINGHOUSE SAXBY FARMER LIMITED

**1. Introduction**

Saxby and Farmer (India) Limited was incorporated as a private limited company on 10th May 1923. The name of the Company was changed to Westinghouse Saxby Farmer Private Limited on 2nd September 1965. Up to 18th July 1969 the Company was in the private sector and was managed by Westinghouse Brake and Signal Company Limited, London. As the Company was on the verge of voluntary liquidation owing to financial difficulties, the State Government decided (10th July 1969) to take it over in the interest of the employees as well as a large number of small ancillary industries linked with the Company. On acquisition of 51 per cent of its issued and subscribed shares by the State Government, the Company became a Government Company on 19th July 1969. The balance 49 per cent of the share capital is held by Westinghouse Brake and Signal Company Limited, London. The name of the Company was changed to Westinghouse Saxby Farmer Limited on 6th August 1969.

**2. Objects**

The main objects of the Company are to manufacture and deal in the following items:

- (a) Railway signal and interlocking apparatus, railway brakes, rolling stock for railways, appliances for lighting railway and other carriages and all kinds of railway appliances and accessories;
- (b) Brakes and other mechanical appliances and accessories for all kinds of road carriages, wagons, trucks, tramways and vehicles;
- (c) Machines, tools, compressors, etc. and
- (d) Pneumatic and electric tools and appliances and pneumatic, electric and hydraulic railway and marine signal appliances.

In April 1972 the Company proposed to take up certain other activities related to its existing business. Accordingly, a special resolution has been passed in the Annual General Meeting of the Company held in December 1975 altering suitably the objects clause of the Memorandum of Association and a petition has been sent on 5th January 1976 to the Company Law Board for confirmation of the change; the confirmation is awaited (February 1976).

**3. Organisational set-up**

3.01. The Management of the Company vests in a Board of Directors. On 30th June 1975, the Board of Directors consisted of a part-time Chairman, a whole-time Managing Director nominated by the Government

of West Bengal and seven part-time Directors of whom four were nominated by Government and the rest by the Westinghouse Brake and Signal Company Limited, London.

Approval to the appointment of the Managing Director by the Central Government, as required under Section 269 of the Companies Act, 1956, was sought on 5th April 1975; the approval is awaited (February 1976).

3.02. The day-to-day business of the Company is conducted by the Managing Director who has been delegated administrative and financial powers by the Board of Directors.

#### 4. Capital structure

4.01. As on 30th June 1974\* the authorised and paid-up capital of the Company was Rs.25 lakhs divided into 2,50,000 equity shares of Rs.10 each, out of which 1,22,500 shares were being held by Westinghouse Brake and Signal Company Limited, London; 1,27,500 shares representing 51 per cent of the issued, subscribed and fully paid-up shares were transferred to the State Government on the date of take-over at a nominal price of rupee one. After the take-over, the Company had obtained unsecured loans from time to time from Government, which stood at Rs.245.41 lakhs as on 30th June 1974. The principal due for repayment together with the interest accrued on the loans up to 30th June 1974 but not paid amounted to Rs.218.21 lakhs (principal—Rs.168.50 lakhs and interest—Rs.49.71 lakhs).

4.02. The Company had a cash credit arrangement with the United Bank of India and the Bank of India up to a limit of Rs.110 lakhs against hypothecation of all stocks, works-in-progress, book debts and all movable assets, etc. The balance outstanding in the cash credit account as on 30th June 1974 was Rs.126 lakhs including interest of Rs.8.03 lakhs. In order to meet the working capital requirements, the Company also secured overdraft facility of Rs.35 lakhs from the United Bank of India on the guarantee given by Government (without guarantee charge). The amount of overdraft availed of from the bank amounted to Rs.36.79 lakhs including interest (Rs.2.60 lakhs) as on 30th June 1974.

4.03. In terms of an agreement entered into with the two banks referred to above on 20th November 1973, moratorium was granted to the Company in respect of accrued interest from the date of the agreement up to 31st December 1974 on all cash credits/overdrafts. The accrued interest up to that date will be payable within a period of three years from 1st January 1975. The interest accrued up to 31st December 1974 amounted to Rs.21.98 lakhs (United Bank of India—Rs.12.51 lakhs and Bank of India—Rs.9.47 lakhs). Out of the accrued interest of Rs.21.98 lakhs, a sum of Rs.6.80 lakhs has been paid to the banks up to January 1976 (United Bank of India—Rs.4.55 lakhs and Bank of India—Rs.2.25 lakhs).

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\*The accounting year for the Company is from 1st July to 30th June. The accounts for the year 1974-75 are under compilation (February 1976).

4.04. The Company also obtained from time to time advances amounting to Rs.112 lakhs from the Railway Board through the State Government, to be adjusted against supplies, bearing interest at the rate of six per cent. The amount of unadjusted advances up to 30th June 1975 was Rs.62.81 lakhs (including interest of Rs.8.83 lakhs).

The Management stated (February 1976) that the advances were obtained from the Railways with the understanding that the amount would be adjusted against supplies from time to time and 10 per cent of the value of supplies to the Railways is being adjusted against the advances, the balance 90 per cent only being paid by the Railways to the Company.

4.05. The debt equity ratio for the Company is increasing from year to year as detailed below :

Year ending 30th June						Debt equity ratio
1970	..	..	..	..	..	3.00 : 1
1971	..	..	..	..	..	4.59 : 1
1972	..	..	..	..	..	7.19 : 1
1973	..	..	..	..	..	8.27 : 1
1974	..	..	..	..	..	9.82 : 1

The Management stated (February 1976) that a proposal for conversion of a part of Government of West Bengal loan to equity to bring down the debt equity ratio to 2 : 1 was sent to Government and it was under consideration of Government.

## 5. Production performance

5.01. The traditional product range of the Company falls under four major types of equipment, *viz.* mechanical signalling, electrical signalling, air brakes and vacuum brakes for the Railways. From April 1972, the Company diversified its production as detailed in paragraph 5.04 *et. sec.*

5.02. The Company has two workshops at Entally and Tangra and one assembly shop at Howrah. While the Entally workshop mainly manufactures vacuum brakes, air brakes and other components and diversified products, the Tangra workshop makes signalling equipment (both electrical and mechanical). The Howrah unit assembles 5 H.P. agricultural diesel pump sets. Installed capacity of the units for the manufacture of various items has not been assessed so far (February 1976).

5.03. The table below indicates the value of orders received from the customers and the value of orders executed in respect of four major products during the four years ending 30th June 1975:

Name of the product	Year	Orders on hand at the beginning of the year	Orders booked during the year	Total orders	Orders executed during the year	Orders cancelled during the year	Orders pending at the close of the year	Percentage of orders executed to orders in hand	
									(In lakhs of Rupees.)
Air brake	..	1971-72	131.86	39.30	171.16	35.54	5.08	130.54	20.76
	..	1972-73	130.54	104.89	235.43	69.80	0.10	165.53	29.65
	..	1973-74	165.53	81.12	246.65	82.10	0.24	164.31	33.28
	..	1974-75	164.31	84.40	248.71	84.14	0.38	164.19	33.83
Vacuum brake	..	1971-72	43.16	51.82	94.98	31.28	2.63	61.07	32.93
	..	1972-73	61.07	51.80	112.37	52.63	6.24	53.50	46.83
	..	1973-74	53.50	144.93	198.43	59.44	17.62	121.37	29.95
	..	1974-75	121.37	54.93	176.30	77.94	28.08	70.28	44.21
Electrical signalling	..	1971-72	304.74	62.13	366.87	33.20	50.48	283.19	9.05
	..	1972-73	283.19	48.68	331.87	79.83	59.21	192.83	24.05
	..	1973-74	192.83	152.39	345.22	91.34	..	253.88	26.46
	..	1974-75	253.88	190.43	444.31	144.05	..	300.26	32.31
Mechanical signalling	..	1971-72	8.36	15.14	23.50	1.71	..	21.79	7.27
	..	1972-73	21.79	46.23	68.02	10.57	..	57.45	15.54
	..	1973-74	57.45	4.36	61.81	21.21	..	40.60	34.31
	..	1974-75	40.60	0.63	41.23	10.57	0.03	30.63	25.63

The slow rate of execution of orders was attributed (March 1975) by the Management to lack of raw materials and frequent power failures.

Cancellation of orders has been attributed by the Management (February 1976) to

- (a) withdrawal of demands by the Railways (Rs.60.37 lakhs) and
- (b) cancellation of orders by the Railways due to subsequent enhancement of supply rate by the Company (Rs.109.72-lakhs).

5.04. **Diversification of production:** Apart from production in the traditional lines, the Company took up new lines of production with effect from April 1972. As a measure of diversification, the Company has undertaken manufacture of brake regulators, expressors, compressors, air and hydraulic brakes, side buffer assembly, mine tubs, 5 H.P. diesel agricultural pump sets and developed axle counter, communication equipment for mines, electronic track circuit equipment, automatic warning system and railway marshalling yard equipment. The range of diversification activity also includes export oriented items like signalling equipment, strainer, castings, etc.

5.05. The table below indicates the manufacture of diversification products during the three years ending 30th June 1975 :

Year					Value of diversification products made	Total value of production	Value of diversification products as a percentage of total value of production
(In lakhs of Rupees)							
1972-73	..	..	..	..	3.96	210.77	1.88
1973-74	..	..	..	..	27.62	308.05	8.96
1974-75	..	..	..	..	46.50	Not available	Not available

5.06. The table below indicates the manufacture of diesel pump sets against target up to the period ending 30th June 1975 :

Year				Target (number)	Production (number)	Value (In lakhs of Rupees)	Shortfall (number)
1973-74 (March 1974* to June 1974)	..	..	..	400	215	6.18	185
1974-75	..	..	..	1,200	358	11.17	842

Shortfall in production has been attributed by the Management (February 1976) to poor performance of the sole distributor.

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\*The date of commissioning

5.07. Exports made by the Company during the four years ending 30th June 1975 are detailed below :

Name of the importing country				1971-72	1972-73	1973-74	1974-75
(In lakhs of Rupees)							
Malayasia	..	..	..	0.20	0.60	0.37	Nil
Nigeria	..	..	..	0.41	0.04	Nil	Nil
Sudan	..	..	..	0.03	Nil	Nil	1.88
Bangladesh	..	..	..	Nil	Nil	4.34	1.83
U.S.A.	..	..	..	Nil	Nil	Nil	0.13
Total			..	0.64	0.64	4.71	3.84

Note : Figures have been taken from Sundry Debtors Ledger.

## 6. Under-utilisation of plant and machinery

6.01. The table below indicates the extent of under-utilisation of machines installed in the Entally workshop for the years 1971-72 to 1973-74 :

				1971-72	1972-73	1973-74*
1. Available hours	..	..	..	5,64,255	5,60,759	6,11,483
2. Hours utilised	..	..	..	2,94,622	3,34,087	3,68,532
3. Idle hours on account of						
(a) breakdowns, normal repairs, non-availability of materials				1,07,198	49,231	52,581
(b) shortage of staff	..	..	..	1,62,435	1,77,441	1,90,370
4. Total idle hours	..	..	..	2,69,633	2,26,672	2,42,951
5. Percentage of utilisation	..	..	..	52.21	59.58	60.26
6. Percentage of idle hours to available hours	..	..	..	47.79	40.42	39.74

6.02. Log books for each type of machinery installed in the Tangra workshop and the assembly shop at Howrah have not been introduced (January 1976). In their absence, the extent of under-utilisation of the machines installed therein could not be assessed.

\*Data for 1974-75 have not been compiled by the Management (January 1976).



## 7. Purchase procedure and inventory control

7.01. The following deficiencies in the existing purchase procedure were noticed:

- (a) Generally, all purchases other than those made against rate contracts of the Director General, Supplies and Disposals or of proprietary items were required to be made by inviting open tenders. Limited tenders could be resorted to "when it is not in the interest of the Company to go through the costly and time consuming procedure of advertising in the newspapers and commercial magazines". In no case were open tenders invited for purchases from the market up to the time of audit in February 1975.

The Management stated (February 1975) that purchases were made on selective tender basis due to production urgency and procedural delay in open tender.

- (b) Purchases of store, etc. costing more than Rs. 25,000 each were required to be approved by the Board of Directors. But the Board's approval was not obtained for such purchases.

The Management stated (February 1975) that minutes of each tender committee meeting were sent for the approval of the Financial Adviser and Chief Accounts Officer and the Managing Director.

- (c) Approved lists of contractors/suppliers for each commodity/group of commodities were required to be maintained for inviting limited tenders/quotations and the lists were required to be made up-to-date from time to time with the approval of the Managing Director.

No up-to-date approved lists of contractors/suppliers are being maintained (January 1976).

7.02. The following table brings out the comparative position of inventory and its distribution at the close of the five years ending 30th June:

	1970	1971	1972	1973	1974
Stock at the close of the year					
	(In lakhs of Rupees)				
(a) Raw materials .. ..	25.08	34.29	31.69	48.12	47.87
(b) Stores and spare parts including manufactured components, etc.	12.17	12.62	13.47	17.40	16.77
(c) Works-in-progress ..	22.62	24.67	34.12	25.14	52.04
(d) Finished goods ..	5.55	5.61	4.29	4.85	3.40
	<u>65.42</u>	<u>77.19</u>	<u>83.57</u>	<u>95.51</u>	<u>120.08</u>
Total consumption of raw materials during the year (In lakhs of Rupees)	39.89	48.66	47.79	105.59	141.89
Closing stock of raw materials as number of months' consumption	7.55	8.46	7.96	5.47	4.05
Total sales during the year (In lakhs of Rupees)	76.45	94.69	105.20	216.37	284.57
Closing stock of finished goods as number of months' sales	0.87	0.71	0.49	0.27	0.14

7.03. The store materials were not analysed age-wise or value-wise for effecting cost reduction through inventory control. The stores held as on 30th June 1974 (Rs.16.77 lakhs) included stores and spares valued at Rs.10.89 lakhs (details given below) which had not moved for three years or more as on 30th June 1974 :

Description	Number of items	Value (In lakhs of Rupees)
(a) Direct production materials		
(i) Imported components .. .. .	191	0.55
(ii) Others .. .. .	2,400	4.56
(b) Indirect production materials .. .. .	980	2.72
(c) Factored stock .. .. .	43	0.60
(d) Stores of own make .. .. .	666	2.40
Total ..	4,280	10.89

The Management stated (January 1974) that all the materials had become redundant on account of change in design by the client. Up to January 1976, Rs.1.43 lakhs\* have been realised by disposal of the imported components and some other materials.

7.04. (1) The minimum, maximum and re-ordering levels of stores and spares have not been fixed.

(2) The Company has not compiled a stores manual.

(3) No material budget is prepared for the Company incorporating the annual requirement of materials based on production schedule and preventive maintenance schedule.

The Management stated (March 1975), "We could not as yet make an attempt for Budgeting requirement of materials on account of uncertainty in our production schedule in certain sphere which is due to the erratic availability of raw materials, change in design and demand of the Railway".

## 8. Costing system

8.01. The Company is following the system of "Job costing" for determination of costs of its products. The Company has not compiled any cost accounting manual so far (January 1976).

8.02. The following deficiencies in the existing system of costing have been noticed :

- (i) The costing records are not reconciled with the financial accounts ;
- (ii) Estimates for each job are not compared with the actual cost and variations are not investigated ;

\*As per Sales Register

- (iii) Overheads charged to jobs on the basis of predetermined rates are not reviewed against the actual overhead charges. Works overhead and administrative, selling and distribution overheads are not booked separately;
- (iv) No records of idle time of machines indicating the reasons therefor are maintained, except in the case of Entally workshop;
- (v) No consolidated record is being maintained showing the rejections of products by the clients and the total expenditure incurred on rectification of defects. During the three years ending 30th June 1974, the Company incurred an expenditure of Rs.16,995, Rs.9,822 and Rs.12,297 respectively towards the cost of rectification of defects in the products;
- (vi) There is no system of apprising the Board of cost trends in respect of major products;
- (vii) The estimated time for job completion is based on the past experience; norms have not been fixed through time and motion study.

### 9. Manpower analysis

9.01. The table below indicates the overall staff strength and its productivity during the three years ending 30th June 1974 :

	1971-72	1972-73	1973-74
Number of employees .. .. .	1,791	1,834	1,843
Salaries and wages (In lakhs of Rupees) .. .. .	84.07	100.32	123.49
Expenditure on overtime (In lakhs of Rupees) .. .. .	1.59	4.52	7.03
Value of production (In lakhs of Rupees) .. .. .	114.34	210.77	308.05
Value of production per employee (Rupees) .. .. .	6.384	11,492	16,715
Sales (In lakhs of Rupees) .. .. .	105.20	216.37	284.57
Sales per employee (Rupees) .. .. .	5,874	11,798	15,440

9.02. The table below indicates the utilisation of available manhours during the two years ending 30th June 1974 :

	1972-73		1973-74	
	Actual	Percentage	Actual	Percentage
Direct productive hours .. .. .	23,25,459	58.03	26,01,441	47.86
Indirect productive hours .. .. .	16,47,772	41.12	27,44,572	50.49
Idle hours .. .. .	34,204	0.85	89,248	1.65
Total available manhours during the year .. .. .	40,07,435	100.00	54,35,261	100.00

Payments of Rs.0.34 lakh and Rs.0.95 lakh for idle time during the two years have been attributed by the Management (November 1975) to

- (a) un-predictable materials position;
- (b) inability to divert the idle labour to other works in certain cases; and
- (c) load shedding/power cuts.

Data of idle labour for 1974-75 have not been compiled by the Management (January 1976).

## 10. Financial position and working results

10.01. The table below summarises the financial position of the Company under broad headings for the five years ending 30th June 1974:

	1969-70	1970-71	1971-72	1972-73	1973-74
	(In lakhs of Rupees)				
<i>Liabilities</i>					
(a) Paid-up capital .. ..	25.00	25.00	25.00	25.00	25.00
(b) Reserves and surplus .. ..	77.05	75.54	73.35	71.76	66.15
(c) Borrowing (including cash credit)	206.03	251.07	308.53	300.59	463.13
(d) Trade dues and other liabilities (including provision)	72.65	87.82	105.81	152.21	181.25
Total .. ..	380.73	439.43	512.69	639.56	735.53
<i>Assets</i>					
(e) Gross block .. ..	201.65	200.96	201.52	202.27	200.93
(f) Less Depreciation .. ..	106.46	118.90	129.05	137.71	145.66
(g) Net fixed assets .. ..	95.19	82.06	72.47	64.56	55.27
(h) Capital works-in-progress .. ..	0.32	0.47	0.57	0.39	0.32
(i) Current assets, loans and advances.	157.29	154.74	167.58	242.22	307.23
(j) Investments .. ..	0.07	0.07	0.07	0.07	0.07
(k) Accumulated losses .. ..	127.86	202.09	272.00	332.32	372.64
Total .. ..	380.73	439.43	512.69	639.56	735.53
Capital employed .. ..	179.83	148.98	134.24	154.57	181.25
Net worth .. ..	(-)25.81	(-)101.55	(-)173.65	(-)235.56	(-)281.49

Note: (1) Capital employed represents net fixed assets plus working capital. (2) Net worth represents paid-up capital plus reserves and surplus less intangible assets.

10.02. The Company has been incurring losses from the date of take-over and the cumulative loss as on 30th June 1974 amounted to Rs. 372.64 lakhs against the paid-up capital of Rs. 25 lakhs

The working results of the Company for the five years ending 30th June 1974 are tabulated below :

	1969-70	1970-71	1971-72	1972-73	1973-74
	(In lakhs of Rupees)				
Sales .. .. .	76.45	94.69	105.20	216.37	284.57
Cost of sales .. .. .	134.56	170.43	177.29	279.79	326.68
Loss .. .. .	58.11	75.74	72.09	63.42	42.11
Percentage of cost of sales to sales ..	176.01	179.99	168.53	129.31	114.80

In their 52nd Annual Report for 1973-74 the Management have attributed the loss to

- (a) execution of unremunerative sales orders, particularly with regard to vacuum brakes;
- (b) inadequate orders for supply of air brake sets;
- (c) load shedding/power cuts;
- (d) maintenance of a large labour force frequently idle on account of loadshedding, resulting in sharp rise in labour costs;
- (e) reduction in the Company's throughput due to refusal by Integral Coach Factory to take supplies from the Company following a glut of materials between December 1973 and March 1974;
- (f) shortfall in the Company's sales due to dislocation of railway services owing to a strike in the Eastern Railway during a part of the year 1973-74; and
- (g) shortage of certain essential materials like steel sections, pig iron, hard coke, non-ferrous metals.

The Management stated (April 1975) that but for the execution of the old orders on hand which had accumulated, the loss would be less. In December 1975, the Management reiterated that the company was compelled to execute old unremunerative sales orders.

The Railways have been the main customers of the Company, as indicated in the following table :

Year	Total sales	Sales in India		Exports	Percentage of sales to Railways to total sales
		To the Railways	To others		
	(In lakhs of Rupees)				
1971-72 .. .. .	105.20	70.43	34.13	0.64	67
1972-73 .. .. .	216.37	170.70	45.03	0.64	79
1973-74 .. .. .	284.57	219.03	60.83	4.71	

Though heavily dependent on the Railways, the Company is not the sole supplier in respect of air brake, vacuum brake, electrical signalling and mechanical signalling equipment required by the Railways.

A test check of sales orders in respect of supply of "point machines and D5-1 relays" to the Railways revealed the following losses in executing the old orders at old selling prices and without escalation clause :

Date of order	Units supplied	Sale price per unit (Rupees)	Actual cost per unit (Rupees)	Difference per unit (Rupees)	Loss (In lakhs of Rupees)
Point machines					
January 1968	.. 67	3,910	10,436	6,526	4.37
November 1969	.. 688	4,697	10,436	5,739	39.48
	77	4,793	10,436	5,643	4.34
September 1972	.. 65	5,012	10,436	5,424	3.53
D5-1 relays					
December 1967	.. 776	280	487	207	1.61
	210	278	487	209	0.44
July 1968	.. 144	282	487	205	0.29
July 1968	.. 366	287	487	200	0.73
November 1969	.. 64	377	487	110	0.07
	796	350	487	137	1.09
	2,006	310	487	177	3.55
	6,946	325	388	63	4.37
				Total ..	63.87

The Company appealed (June 1972) to the Railway Board through Government of West Bengal for suitable compensation for the losses incurred in the execution of the abovementioned orders. The Railway Board decided (February 1974) to grant *ex-gratia* payment to the extent of 50 per cent of the losses suffered in the manufacture of "point machines and D5-1 relays" subject to a ceiling of Rs.14.27 lakhs, after scrutiny of cost figures and verification of losses; Rs.10 lakhs were paid by the Board in August 1974.

The cost figures as well as the losses incurred by the Company in the execution of the orders were scrutinised by the Board in December 1975; the final decision of the Board is awaited (February 1976).

## 11. Sundry debtors

11.01. The following table indicates the position of sundry debtors *vis-a-vis* the sales for the three years ended 30th June 1974:

As on 30th June	Book debts considered good	Considered doubtful by the Management	Total	Sales	Percentage of debtors to sales
(In lakhs of Rupees)					
1972 .. ..	62.11	10.88	72.99	105.20	69.38
1973 .. ..	111.17	10.42	121.59	216.37	56.19
1974 .. ..	150.50	11.72	162.22	284.57	57.00

11.02. The age-wise break-up of the sundry debtors as on 30th June 1974 is tabulated below:

	Total	Due from Government departments	Due from Government under-takings	Due from private parties
(In lakhs of Rupees)				
Debts outstanding for less than six months	90.69	68.12	11.28	11.29
Debts outstanding for six months and more but less than one year	31.00	25.40	5.26	0.34
Debts outstanding for one year and more but less than three years	32.66	24.94	6.65	1.07
Debts outstanding for three years and above	7.87	7.49	0.24	0.14
Total ..	162.22	125.95	23.43	12.84

11.03. The outstandings under sundry debtors were heavy in relation to sales in the last three years. It is observed that the Company has drawn Rs.117.97 lakhs (excluding interest of Rs.8.03 lakhs) against cash credit arrangement with two commercial banks as on 30th June 1974.

The Company had also defaulted in regard to the payment of principal as well as interest accrued on the unsecured loans obtained from Government since 1969-70 as mentioned in paragraph 4.01 *ante*. The overdue principal together with the interest accrued on loans amounted to Rs.218.21 lakhs on 30th June 1974, as under:

Year	Principal	Interest
(In lakhs of Rupees)		
1969-70 .. ..	..	2.63
1970-71 .. ..	30.00	6.13
1971-72 .. ..	45.00	9.91
1972-73 .. ..	47.50	12.56
1973-74 .. ..	46.00	18.48
Total ..	168.50	49.71

Non-payment of overdue principal as well as interest was attributed by the Management (February 1976) to paucity of funds.

## 12. Internal audit

An internal audit cell has been in existence since July 1969 and it works under the control of the Financial Adviser and Chief Accounts Officer and Secretary. However, no manual laying down the scope and programme of work to be carried out by the internal audit cell has been drawn up by the Company so far (January 1976).

## 13. Accounting manual

13.01. No accounting manual laying down the detailed procedure for the maintenance and compilation of accounts has been prepared so far (March 1976).

13.02. The table below indicates the extent of delay in submitting the accounts to audit during the six years ending 30th June 1975:

Year ending 30th June			Date of submission of authenticated accounts
1970	..	..	.. April 1972
1971	..	..	.. May 1973
1972	..	..	.. November 1973
1973	..	..	.. January 1975
1974	..	..	.. October 1975
1975	..	..	.. Not yet submitted (March 1976)

## 14. Other topics of interest

14.01. **Unutilised land:** For the expansion programme, the erstwhile Westinghouse Saxby Farmer Private Limited purchased a plot of land on 6th August 1966 at Serampore at a cost of Rs.1.55 lakhs. Subsequently, the expansion programme was abandoned in November 1966.

The Board of Directors resolved (October 1969) to dispose of the land since the Company was paying interest at the rate of 9½ per cent per annum on the purchase price of the land to the bank with whom the land was hypothecated and maintaining two watchmen to look after the land. The incidental expenditure on account of interest, salary to watchmen and land tax incurred by the Company for the period from January 1970 to December 1975 amounted to Rs.1.10 lakhs.



The Management stated (February 1975) that the land could not be disposed of for want of buyer. The land is yet to be sold (March 1976).

14.02. **Loss:** The Company imported certain railway signaling materials valued at £2,741 (Rs.0.49 lakh approximately) from London in May 1971. The materials were landed in Calcutta on 31st May 1971 and were taken delivery of on 10th and 11th November 1971, i.e. five months after arrival of the vessel. The Company asked (9th November 1971) the carriers to conduct a survey. This request was turned down as time-barred. A survey conducted by the agent of the insurance company on 1st December 1971 revealed that the Company, on its own initiative, had unpacked the cases prior to survey and as such the surveyors could not ascertain how, when and where the discrepancies took place.

The Company lodged (December 1972) a claim of Rs.0.26 lakh on the insurance company which rejected (February 1973) the claim on the basis of the survey report of their agent. The Management stated (May 1973) that delayed clearance by the Company owing to paucity of funds had resulted in the loss.

## SECTION III

**OTHER TOPICS OF INTEREST****DURGAPUR PROJECTS LIMITED**

The activities of Durgapur Projects Limited for the period ending 31st March 1971 were reviewed in paragraph 57 of the Report of the Comptroller and Auditor General of India for the year 1970-71. The following points of interest were noticed during test audit:

**1. Loss of revenue due to delay in revision of tariff**

Durgapur Projects Limited sells power to local industries on 11 KV line at rates which are on par with those of the Damodar Valley Corporation. The tariff to local consumers was last revised in 1965 when the Damodar Valley Corporation also revised its tariff. The Company's cost of generation had increased steadily (Rs.67.51 per 1000 Kwh in 1968 to Rs.97.97 in 1971) but the Management (January 1971) did not consider upward revision of the power tariff on the ground that the DVC had not increased its tariff.

The Damodar Valley Corporation enhanced its power tariff by imposing a surcharge of 15 per cent on demand and energy charges with effect from February 1971. The Company revised its 11 KV tariff by imposing a similar surcharge of 15 per cent with effect from 1st June 1971. Delay in revision of tariff resulted in a loss of revenue of Rs.3.57 lakhs during the period from February to May 1971.

Government stated (December 1975) that the Company, being an autonomous body, had already decided in 1966 to be independent of the Damodar Valley Corporation in the matter of revision of its tariff and that it had considered all the points while deciding on the date from which the revision was to take effect.

**2. Delay in revision of coke price**

The Company manufactures coke from coal purchased from outside. The price of coke was revised from time to time having regard to the costs of production, especially the price of coal, and also the market condition. The Board of Directors of the Company decided (November 1973) to increase the sale prices of Rs.180, Rs.115.20 and Rs.25 per tonne for hard and nut cokes, pearl coke and breeze coke by Rs.40, Rs.34.80 and Rs.10 per tonne respectively with effect from 1st December 1973 in anticipation of similar increase by Bharat Coking Coal Limited, a major producer of coke in the country. But, the decision was not implemented as Bharat Coking Coal Limited did not eventually raise the price of coke.

The Durgapur Projects Limited was informed on 21st January 1974 by Bharat Coking Coal Limited about the increase in the price of direct feed and blendable coal by Rs.36 per tonne with retrospective effect from 15th November 1973. (This increase, as stated by the Management in November 1975, was not anticipated by the Management and not taken into consideration by them while proposing the increase in coke prices with effect from 1st December 1973). The Company then increased the price of hard and nut cokes, pearl coke and breeze coke by Rs.70, Rs.40 and Rs.10 per tonne respectively with effect from 1st March 1974.

The Company was not obliged to follow Bharat Coking Coal Limited in the matter of revision of their selling price for coke. Had the Company given effect to the price increase from 1st December 1973, as decided in November 1973, they could have earned additional revenues to the extent of Rs.34.36 lakhs (approximately) from the sale of coke between December 1973 and February 1974.

The Management stated (November 1975) that "in view of the fact that the rate of increase in the price of coke with effect from 1st March 1974 was much higher than that proposed from 1st December 1973, the question of loss of revenue due to delay in revision of the price of coke does not arise".

It is noted in this connection that the maximum increase in the coke price fixed with effect from 1st March 1974 over that proposed in December 1973 was Rs. 30 per tonne, whereas the increase in the cost of coal (the basic raw material for coke production) from 15th November 1973 (which was not anticipated while proposing the price revisions of coke in December 1973) was Rs.36 per tonne.

## KALYANI SPINNING MILLS LIMITED

### 3. Payment of demurrage and interest charges

Kalyani Spinning Mills Limited purchased 8,611 bales of cotton during 1974-75, out of which 4,333 bales were not cleared within the permissible free time or four hours allowed by the Railways. The consignments suffered demurrage ranging from 2 days to 87 days and the Company had to incur demurrage charges, between June 1974 and March 1975, amounting to Rs.0.70 lakh. The Company also incurred interest charges of Rs.0.25 lakh due to delay in making payment.

Government stated (January 1976) that "although the Company had planned a delivery schedule for lifting the bales of cotton, it had failed to work up to the schedule owing mainly to acute paucity of funds from circumstances quite beyond its control".

#### 4. Loss due to withdrawal of sale order

In response to a tender for sale of yarn, which was opened on 11th December 1974, sixteen parties responded, one of whom offered to buy 1,514 bales (1,37,346 kg), 986 cases (89,448 kg) and 725 bags (36.250 kg) of different varieties of yarn at rates varying from Rs.17.50 per kg to Rs.48.50 per kg. Proforma invoices amounting to Rs.67.67 lakhs were issued to the party against which a sum of Rs.50.87 lakhs was received till 6th January 1975.

In anticipation of getting better prices, the Management asked the party to surrender the proforma invoices for yarn valued at Rs.16.80 lakhs. On 7th January 1975, the party surrendered the following quantities of yarn offered to them for sale through different proforma invoices :

(a) 60S Carded X X Reel	...	...	400 bales
(b) 42S Hosiery Superior (Sudan)		...	300 cases
(c) 2/80S Egyptian(M)	..	...	100 bales

The expectation of the Management of getting better prices for these quantities on resale did not, however, materialise. Against subsequent tenders (opened between 28th January and 7th March 1975), the Company sold 375 bales and 195 cases of yarn against items (a) and (b) above to the same party but at lower rates; the balance were sold to other bidders at these rates. The disposal of the surrendered stock resulted in a net loss of Rs.0.87 lakh to the Company with reference to the higher rates obtained in the tender issued in December 1974 [after setting off a profit of Rs.0.18 lakh received as a result of re-tender against item (c) above].

The Management stated, *inter alia* (October 1975) that notice for the subsequent tender was rather delayed and the Company could not avail themselves of the opportunity of sudden improvement in the market condition resulting in the loss.

The matter was referred to Government (October 1975); their reply is awaited (February 1976).

## WEST BENGAL DAIRY AND POULTRY DEVELOPMENT CORPORATION LIMITED

### 5. Kalyani Feed Milling Plant

#### 5.01. Introduction

In April 1970, the Company decided to set up a Feed Milling Plant at Kalyani with a capacity of 5 tonnes per hour at a capital cost of Rs.29.67 lakhs to augment the supply of balanced cattle and poultry feed in the State at reasonable prices.

### 5.02. Delay in construction

The contract for the construction, installation and commissioning of the plant including supply of equipment was awarded to a public sector undertaking in December 1970 at a cost of Rs.12.68 lakhs on the basis of negotiation. A letter of May 1970 from the undertaking mentioned 12 months' time for completion. The contract was silent about the period of completion of the work and no penalty clause was incorporated therein for any delay in completion of the work. The undertaking partially completed the work and handed over the plant to the Company in September 1972 on the ground that they could not make further progress due to non-completion by another contractor of godowns which were necessary for complete installation of the plant as designed. The contract for construction of godowns had been awarded in May 1972 at a cost of Rs.7.52 lakhs with the stipulation that the work was to be completed within three months, i.e. by August 1972. There was no penalty clause in the contract for delayed completion of the work. The godowns were completed and handed over to the Company in March 1974. The Management stated (April 1975) that absence of a penalty clause prevented the Company from taking any action against the contractor for delayed completion of the work.

The main contractor resumed work in May 1973 when some portion of the work on godowns was completed but could not start the trial run before August 1974 due to delay in supply of machinery by themselves and due to mechanical trouble in the Hammer mill.

### 5.03. Production and sale

Though the trial run and production commenced in August 1974, the production capacity could not be raised beyond two tonnes per hour (October 1975) as against the designed capacity of 5 tonnes per hour due to defects in Hammer mill, Impellor, Intake Screw conveyor and Cleaning Reel which were giving low out-turn. The Management stated (October 1975) that the contractor has been asked to rectify the defects of the plant. Even this reduced capacity is not being utilised fully. The plant is run on single shift though the project report envisaged a three-shift operation. The plant is now producing cattle feed only instead of both cattle and poultry feed; the production is fifteen tonnes per day as against the target of 100 tonnes per day indicated in the project report (May 1970).

The sale price of the milch ration and dry ration manufactured by the plant was reduced from Rs.105 and Rs.96 to Rs.97 and Rs.90 per quintal respectively with effect from October 1975, as it was higher than the prices of similar feed manufactured by other companies. The price as reduced in October 1975 is reported by the Management to be below the cost of production of Rs.138.65 per quintal (October 1975) and is reported to be still not competitive.

#### 5.04. Purchase of excess land

For construction of the plant, 9.54 acres of land was obtained from Government in January 1971 at a cost of Rs.2.10 lakhs to be paid in twelve annual instalments, out of which a sum of Rs.1.38 lakhs (including Rs.0.08 lakh as penalty for delayed payments of second, third and fifth instalments) was paid till October 1975 in five annual instalments. The Project report placed the total requirement of land at 2.01 acres. The excess land of 7.53 acres was lying unutilised (October 1975). An expenditure of Rs.0.56 lakh was incurred for the construction of a boundary wall for the excess land.

The matter was referred to Government (November 1975) their reply is awaited (February 1976).

#### 6. Loss due to spoilt milk and ghee

(a) During the period September 1972 to December 1973, 62.40 lakh litres of milk was purchased by the Company from the Milk Commissioner, West Bengal, for supply to selling agents; out of this 0.78 lakh litres of milk was reported to have got curdled. The Company claimed refund of the entire cost of the curdled milk (Rs.0.78 lakh) from the Milk Commissioner; the bulk of the claim was raised in October (Rs.0.12 lakh), December 1972 (Rs.0.22 lakh) and November 1973 (Rs.0.47 lakh) in respect of milk curdled in September 1972, October 1972 and June 1973 respectively. The Milk Commissioner agreed to refund (June 1974) only the cost of the milk (Rs.3,588) actually returned (3,588 litres) and pointed out that the Company did not return the entire quantity of curdled milk and also did not lodge immediate complaint about the spoilage. The Management stated (December 1975) that the matter was still being nursued with the Milk Commissioner and the outcome would be made known in due course.

The Company refunded the price of curdled milk to the extent of Rs.0.25 lakh (approximately) to the selling agents even though the milk actually returned by them was valued at only Rs.3,588 (3,588 litres); refund of the balance amount of Rs.0.50 lakh to the agent is reported to be under negotiation (February 1976).

(b) In September 1971, the Company purchased 5,000 kg. of ghee in tins from the Integrated Milk Project of Andhra Pradesh, out of which 1,987 kg valued at Rs.0.27 lakh were received in damaged condition. When claim for Rs.0.27 lakh was lodged (September 1971) against the consignors, the latter rejected the claim (April 1972) as the Company had already acknowledged receipt of the consignment without any mention of the damages on the delivery challan. The Government stated (December 1975) that the matter had been taken up again with the Andhra Pradesh Dairy Development Corporation (the successor of the Integrated Milk Project), who have lodged a suit against the carriers in the Court of Law.

## 7. Damages by fire

A fire broke out in the registered office of the Company on the night of 28th June 1975. The incident was reported by the Company to the Government, the Police and the Accountant General on 30th June 1975. The Government Forensic Department opined (August 1975) that the fire was due to an electrical short circuit. The two night watchmen on duty on the date of outbreak of fire were dismissed from service on 20th September 1975 on the charge of negligence of duty.

On 14th July 1975, the cash safe was opened in the presence of senior officers of the Company and a sum of Rs.12,507.32 was found therein. The cash found could not, however, be verified with the book balance of the day as three out of the four cash books for 1974-75 were reported to be gutted and the remaining one partly damaged. Other registers and ledgers pertaining to the year were also reported to be either fully or partially destroyed. The Company preferred (August 1975) a claim for Rs.52,967.40 on the insurance company for the property damaged by the fire but the insurance company reimbursed Rs.25,071.84 (30th December 1975) as final settlement of the claim.

A firm of Chartered Accountants was appointed on 1st December 1975 for reconstruction of the accounts of the Company for the year ending 30th June 1975 at a fee of Rs.14,000 with the stipulation, *inter alia*, that the work should be completed within five months from December 1975.

## STATE FISHERIES DEVELOPMENT CORPORATION LIMITED

8. A review of the operations of the Company was included in paragraph 57 of the Report of the Comptroller and Auditor General of India for the year 1971-72. During test audit the following points relating to a scheme of pisciculture were noticed:

The Company took over from the Development and Planning Department three tanks, measuring 13.77 acres, at Patipukur in the outskirts of Calcutta in November 1971 at a rental of Rs.0.03 lakh per annum for a scheme of pisciculture. Before the take-over, a survey team of the Company conducted inspection of the tanks (January 1971) and reported that the tanks were fit for pisciculture and did not require any major improvement. The scheme envisaged an annual recurring expenditure of Rs.0.23 lakh against an estimated income of Rs.0.37 lakh.

After taking over, the Company incurred a capital expenditure of Rs.0.17 lakh for constructing two watcher sheds and development work. The Managing Director of the Company stated (July 1973) that two tanks were found unsuitable for fish culture, one due to water pollution and the other because of its uneconomic size, while the third tank, though useful for rearing fish, was commercially uneconomic. According to him, "the

revenue as indicated in the original scheme could not be achieved as the estimated income was very high and was not realistic". The Company surrendered (July 1974) the three tanks to the Development and Planning Department. During the period from November 1971 to July 1974, the Company incurred a revenue expenditure of Rs.0.36 lakh against an income of Rs.0.16 lakh. Although the tanks were handed over in July 1974, the Development and Planning Department has not taken over the watcher sheds (February 1976). The Company has been incurring an expenditure of Rs.380 per month on the pay and allowances of the two watchmen. Till May 1975, the Company incurred a net expenditure of Rs.0.41 lakh on this scheme.

Government stated (December 1975) that "an unforeseen eventuality which could not be controlled in spite of best efforts of the Company made the scheme unworkable".



## CHAPTER II

## SECTION IV

**STATUTORY CORPORATIONS****Introduction**

There were seven corporations as on 31st March 1975, viz. West Bengal State Electricity Board, Calcutta State Transport Corporation, North Bengal State Transport Corporation, Durgapur State Transport Corporation, West Bengal Financial Corporation, West Bengal State Warehousing Corporation and West Bengal Industrial Infra-structure Development Corporation. The last named Corporation was incorporated during 1974-75. Under Section 25(2) of the West Bengal Industrial Infra-structure Development Corporation Act, 1974, the auditor of the Corporation shall be appointed by the State Government in consultation with the Comptroller and Auditor General of India. Under Section 26(3) *ibid*, the Comptroller and Auditor General may, if so requested by the State Government, examine and report upon the accounts of the Corporation.

**2(a) West Bengal State Electricity Board****Loan capital**

The aggregate of long-term loans, including loans from Government, bonds, debentures and deposits obtained by the Board stood at Rs.21294.33 lakhs at the end of 1974-75 and represented an increase of Rs.3807.60 lakhs over the total long-term loans of Rs.17486.73 lakhs at the end of the previous year.

**Guarantee**

Government guaranteed repayment of loans of Rs.11848.33 lakhs\* obtained by the Board, against which Rs.11725.41 lakhs\* were outstanding as on 31st March 1975.

**Surplus**

The Board made a surplus of Rs.66.14 lakhs during 1974-75, as against Rs.64.86 lakhs in the previous year, represented by contributions to General Reserve and Bond Redemption Fund.

A synoptic statement showing the summarised results of the working of the Board is given in Annexure 'B'.

**(b) Other Statutory Corporations****Paid-up capital**

The North Bengal State Transport Corporation and the Durgapur State Transport Corporation have no share capital. Calcutta State Transport Corporation has also no share capital. The contribution towards capital by

\*Differs from the details of guarantee shown in the Finance Accounts for 1974-75. The difference is under reconciliation.

the State Government was Rs.608.46 lakhs at the end of 1973-74. The aggregate of paid-up capital of the remaining two Corporations, viz. West Bengal Financial Corporation and West Bengal State Warehousing Corporation as on 31st March 1975 was as follows:

					(In lakhs of Rupees)
West Bengal Financial Corporation	..	..	..	..	150.00
West Bengal State Warehousing Corporation	..	..	..	..	62.00

### Loans

The aggregate of long-term loans obtained by three Corporations, viz. Calcutta State Transport Corporation, North Bengal State Transport Corporation and West Bengal Financial Corporation stood at Rs.3714.89 lakhs at the end of the year, as shown below:

				(In lakhs of Rupees)	Year
Calcutta State Transport Corporation	..	..	..	2654.77	1973-74
North Bengal State Transport Corporation	..	..	..	286.35	1971-72
West Bengal Financial Corporation	..	..	..	773.77	1974-75

### Guarantees

Government guaranteed repayment of loans of Rs.568.26 lakhs obtained through issue of bonds by two Corporations, viz. Calcutta State Transport Corporation and West Bengal Financial Corporation and these loans in their entirety were outstanding, as detailed below:

Name of the Corporation				Outstanding amount of loan guar- anteed by Government	As on 31st March
				(In lakhs of Rupees)	
Calcutta State Transport Corporation	..	..	..	110.00*	1974
West Bengal Financial Corporation	..	..	..	458.26*	1975

Government also guaranteed repayment of principal and payment of interest in respect of borrowing of Rs.568.34 lakhs by the Calcutta State Transport Corporation from the Industrial Development Bank of India of which Rs.342.55 lakhs\* were outstanding as on 31st March 1975.

\*Differs from the details of guarantee in the Finance Accounts for 1973-74 and 1974-75, The difference is under reconciliation.

**Profits/Losses**

The accounts of the following four Corporations for 1974-75 have not been received so far (January 1976):

Name of the Corporation					Year from which accounts are awaited
Calcutta State Transport Corporation	..	..	..	..	1974-75
North Bengal State Transport Corporation		..	..	..	1972-73
Durgapur State Transport Corporation	..	..	..	..	1973-74
West Bengal State Warehousing Corporation		..	..	..	1973-74

According to the latest available annual accounts, profit/loss of the three Corporations was as given below:

			Net profit (+) Net loss (-)	Year
(In lakhs of Rupees)				
(a) Calcutta State Transport Corporation	..	..	(-) 737.67	1973-74
(b) West Bengal State Warehousing Corporation	..	..	(+) 3.42	1972-73
(c) North Bengal State Transport Corporation	..	..	(-) 48.30	1971-72

A synoptic statement showing the summarised financial results of working of the four Corporations, on the basis of their latest available accounts, is given in Annexure 'B'.

## SECTION V

## WEST BENGAL STATE ELECTRICITY BOARD

**1. Introduction**

1.01. West Bengal State Electricity Board was established under Section 5 of the Electricity (Supply) Act, 1948 and started functioning from 1st May 1955. On its formation the Board took over the assets and liabilities of the Electricity Development Directorate; the net value of the assets was assessed as Rs.216.07 lakhs and treated as loan to the Board.

1.02. Some points relating to the working of the Board up to 1973-74 were mentioned in the Report of the Comptroller and Auditor General of India for the year 1973-74 (Commercial).

**2. Objects**

In terms of Section 18 of the Act, the main function of the Board is to promote co-ordinated development of the generation, supply and distribution of electricity within the State in the most efficient and economic manner, with particular reference to underdeveloped areas.

**3. Organisational set-up**

3.01. The Board consists of four whole-time members and three part-time members. The four whole-time members are the Chairman, the Engineer Member—Transmission and Distribution, the Engineer Member—Thermal and the Accounts Member.

3.02. The field organisation comprises three major generating stations, two under Additional Chief Engineers and the third under a Superintending Engineer, three Extra High Tension (Construction) circles, two Extra High Tension (Operation and Maintenance) circles and nine Rural Electrification and Distribution (R.E. & D.) circles, each under a Superintending Engineer. There is also a Stores and Purchase cell under a Deputy Chief Engineer.

3.03. The Revenue Organisation functions under the Deputy Chief Engineer (Commercial). Billing for consumers of 500 KVA and above and inter-State supplies is centralised in his office while other bulk consumers are billed from R.E. & D. circles. Low tension and other consumers are billed from respective group supply offices.

The Testing, Communications and Research wing is under the control of a Deputy Chief Engineer with three Superintending Engineers looking after three circles and six testing divisions.

#### **4. Capital structure**

**4.01. Sources:** The Board's sources of funds are.

- (i) loans towards the value of assets taken over from Government under Section 60(2) of the Act;
- (ii) loans obtained from Government under Section 64 of the Act; and
- (iii) loans raised under Sections 65 and 66 of the Act with or without guarantee of Government.

Details of loans obtained by the Board from different sources till March 1975 are indicated in the following table:

Source of loan	Period of borrowing	Amount drawn up to 31st March 1975 (In lakhs of Rupees)	Terms of repayment	Rate of interest	Amount repaid up to 31st March 1975 (In lakhs of Rupees)	Balance outstanding as on 31st March 1975 (In lakhs of Rupees)
<b>(i) Loans from Government</b>						
(a) Initial loan against value of assets taken over by the Board from Government on the date of constitution of the Board under Section 60(2) of the Act	May 1955	216.07	Not fixed	4 per cent	..	..
(b) Loans advanced by Government under Section 64 of the Act	1955-56 to 1974-75	9359.25	Not fixed	Varying from 4 to 6 per cent (provisional)	6.41	9568.91
<b>(ii) Loans guaranteed by Government under Section 66 of the Act</b>						
(a) Issue of bonds	1961-62 to 1974-75	6391.21	Repayable in 10 to 12 years	Varying from 4½ to 6 per cent	431.17	5960.04
(b) Rural Electrification Corporation Limited	1971-72 to 1974-75	1952.00	Usually in 15 to 35 annual equated instalments starting from sixth year	Varying from 5½ to 7 per cent	0.68	1951.32
(c) Loans from United Bank of India	1972-73 to 1974-75	245.30	Repayable normally in 5 equal instalments starting from twenty-fifth month from the date of drawal	3½ to 14 per cent		245.30
<b>(iii) Without Government's guarantee</b>						
Life Insurance Corporation of India	1966-67 to 1974-75	3975.00	Repayable in 15 to 20 equal instalments	Varying from 7 to 10½ per cent	406.25	3568.75
<b>Total (i) + (ii) + (iii)</b>		<b>22138.83</b>			<b>844.51</b>	<b>21294.32</b>

#### 4.02. Borrowing limits

The aggregate of loans raised from sources other than Government was in excess of the authorised borrowing limit prescribed under Section 65(3) of the Act even after the limit was raised to Rs.100 crores in March 1974, as indicated below:

As on	Limit on borrowing under Section 65(3)	Extent of borrowing
	(In crores of Rupees)	
31st March 1975 .. .. .	100.00	117.25

The limit was further raised to Rs.200 crores from December 1975.

#### 5. Financial position and profitability analysis

##### 5.01. Financial position

The table below summarises the financial position of the Board for the three years ending 1974-75:

	1972-73	1973-74	1974-75
	(In lakhs of Rupees)		
<b>A. Liabilities</b>			
(1) Loans from Government .. .. .	7588.29	8658.91	9568.91
(2) Long-term borrowing .. .. .	5906.40	8827.82	11725.41
<b>(3) Reserves and surplus</b>			
(a) General reserve .. .. .	334.44	379.30	425.43
(b) Other reserves .. .. .	1912.91	1619.32	1920.40
(4) Current liabilities .. .. .	5234.00	5703.32	6503.01
Total liabilities .. .. .	20976.04	25188.67	30143.16

1972-73      1973-74      1974-76  
(In lakhs of Rupees)

**B. Assets**

(5) Gross fixed assets .. .. .	8652.73	8971.45	9227.08
(6) <i>Less</i> consumers' contribution for service lines	1322.49	1453.82	1734.89
(7) <i>Less</i> depreciation reserve .. .. .	2137.44	2433.38	2737.16
(8) Net fixed assets .. .. .	5192.80	5084.25	4755.03
(9) Intangible assets of capital nature .. .. .	39.42	49.56	63.70
(10) Capital reserve represented by consumers' contribution for service lines	1322.49	1453.82	1734.89
(11) Works-in-progress .. .. .	8041.07	11868.60	14839.49
<b>(12) Current assets</b>			
(a) Stores .. .. .	2191.31	2218.30	2339.55
(b) Sundry debtors for energy supplied .. .. .	570.38	635.09	811.24
(c) Other receivables .. .. .	2525.79	3369.75	4338.69
(d) Investments .. .. .	655.23	243.18	262.93
(e) Cash and bank balance .. .. .	438.82	267.58	999.41
Total current assets .. .. .	6381.53	6733.90	8751.82
(13) Bad debt reserve .. .. .	1.27	1.52	1.77
Total assets (8 to 12—13) .. .. .	20976.04	25188.67	30143.16

**C. Other particulars**

(14) Working capital (12—4) .. .. .	1147.53	1030.58	2248.81
(15) *Capital employed .. .. .	6340.33	6114.83	7003.84
(16) **Capital invested .. .. .	13831.47	17868.62	21722.59

\* 'Capital employed' represents net fixed assets (excluding capital works-in-progress) plus working capital. This excludes capital reserve represented by consumers' contribution and includes bad debt reserve.

\*\* 'Capital invested' represents long-term loans plus free reserves.



## 5.02. Working results

The working results of the Board for the three years ending 1974-75 were as follows :

	1972-73	1973-74	1974-75
	(In lakhs of Rupees)		
(a) Gross revenue .. ..	2024.75	2985.32	3822.10
(i) Sale of electricity .. ..	2553.05	2925.02	3712.15
(ii) Other income .. ..	71.70	60.30	109.95
(b) Operating expenses .. ..	1846.96	2295.49	3125.15
(i) Generating expenses .. ..	738.41	980.67	1181.02
(ii) Operation and maintenance expenses ..	541.27	756.27	1131.09
(iii) Purchase of electricity .. ..	567.28	558.55	813.04
(c) (i) Net surplus (a-b) .. ..	777.79	689.83	696.95
(ii) Income from non-operating receipts ..	52.19	..	..
(d) Appropriation			
(i) Contribution to Depreciation reserve ..	290.49	295.94	303.78
(ii) Interest on bonds guaranteed under Section 66	129.87	121.90	103.69
(iii) Interest on sum guaranteed under Section 66 (cash credit)	..	36.43	29.86
(iv) Interest on loan from Life Insurance Corporation of India	139.89	107.12	148.57
(v) Interest on loan from Banks .. ..	0.02	9.39	20.24
(vi) Interest on loan from Rural Electrification Corporation Limited	21.09	..	..
(vii) Interest on loan from Industrial Development Bank of India	..	23.81	15.56
(viii) Interest on consumers' security deposit ..	3.69	3.82	5.27
(ix) Write-down of amount in respect of intangible assets	0.81	2.26	3.85
(x) Contribution to Bond redemption fund ..	20.00	20.00	20.00
(xi) Contribution to General reserve .. ..	43.26	44.85	46.13
(xii) Interest on Government loan .. ..	180.85	24.31	..
Total .. ..	829.97	689.83	696.95
(e) Arrears of interest on loans from Government shown as contingent liability	63.74	282.00	560.66

### 5.03. Interest liability

(i) The following table indicates interest accrued on loans from Government, interest actually paid to Government and interest outstanding as on 31st March 1975 since 1955-56:

Year					Interest accrued during the year	Interest paid to Government	Interest outstanding
(In lakhs of Rupees)							
1955-56	..	..	..	..	10.86	..	10.86
1956-57	..	..	..	..	19.85	..	30.71
1957-58	..	..	..	..	26.05	..	56.76
1958-59	..	..	..	..	30.16	..	86.92
1959-60	..	..	..	..	32.66	..	119.58
1960-61	..	..	..	..	37.68	..	157.26
1961-62	..	..	..	..	51.61	2.98	182.55*
1962-63	..	..	..	..	71.06	11.07	242.54
1963-64	..	..	..	..	146.32	9.05	379.81
1964-65	..	..	..	..	185.36	31.02	534.15
1965-66	..	..	..	..	247.24	54.05	727.34
1966-67	..	..	..	..	357.54	262.97	821.91
1967-68	..	..	..	..	348.45	275.95	894.41
1968-69	..	..	..	..	374.39	0.92	1267.88
1969-70	..	..	..	..	384.83	0.89	1651.82
1970-71	..	..	..	..	426.58	0.86	2077.54
1971-72	..	..	..	..	395.62	0.82	2472.34
1972-73	..	..	..	..	401.86	0.09	2874.11
1973-74	..	..	..	..	419.00	180.00	*3113.11
1974-75	..	..	..	..	492.92	300.00	3306.03†

\*Excluding Rs. 23.34 lakhs being excess provision adjusted during the year

†Consisting of Rs. 560.66 lakhs shown as contingent liabilities and Rs. 2745.39 lakhs as other current and accrued liabilities in the General Balance Sheet as at 31st March 1975

The Board approached Government (June 1975) to waive the interest liabilities. Government have undertaken (November 1975) to waive or freeze the amount of contingent liability of the Board for payment of interest on Government loans up to a date to be mutually agreed upon.

(ii) Interest on loan from Rural Electrification Corporation Limited, amounting to Rs.49.18 lakhs and Rs.64.49 lakhs for 1973-74 and 1974-75 respectively, has not been paid (February 1976).

According to the annual returns submitted by the Board to the Central Water and Power Commission, the working results of the rural electrification operations during the five years up to 1973-74 were as follows:

Year					Shortfall in revenue (after pro- viding operation and maintenanco cost and depreciation) excloding interest on long-term loans	Interest on long- term loans	Total shortfall
(In lakhs of Rupees)							
1969-70	..	..	..	..	50	20	70
1970-71	..	..	..	..	..	..	110*
1971-72	..	..	..	..	100	30	130
1972-73	..	..	..	..	80	30	110
1973-74	..	..	..	..	150	50	200

A case for subsidy was made out by the Board to Government for the first time in September 1973 indicating the working results of rural electrification operations up to 1971-72 as indicated above. Government have undertaken (November 1975) to subsidise the losses on rural electrification operations, the amount of subsidy being limited to the extent required to earn the rate of return of 9.5 per cent. The details of the scheme for grant of subsidy are reportedly being worked out by Government (November 1975).

#### 5.04. (i) Ways and means

The following was the position of cash balance of the Board at the end of the years 1972-73 to 1974-75:

				As on 31st March		
				1973	1974	1975
				(In lakhs of Rupees)		
Current account with banks	..	..	..	342.35	121.21	637.18
Cash in hand	..	..	..	96.47	146.37	362.23
			Total	438.82	267.58	999.41

\*Break-up of the figures for 1970-71 is not available.

Balance as on 31st March 1975 included Rs.503.78 lakhs received from Rural Electrification Corporation Limited in March 1975. Out of the balance of Rs.495.63 lakhs, a sum of Rs.357.13 lakhs was remitted to different units for meeting immediate requirements due on 1st April 1975. The remaining Rs.138.50 lakhs was not sufficient to meet in full the dues to Government on account of electricity duty, which was Rs.365.40 lakhs as on 31st March 1975.

**(ii) Outstanding electricity duty**

Mention was made about non-payment of electricity duty by the Board to Government in paragraph 12.3 of section V of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial). The table below shows the position of outstanding duty for the three years ending 31st March 1975 :

Year	Outstanding at the beginning of the year	Collection during the year	Payment to Government during the year	Outstanding at the end of the year
(In lakhs of Rupees)				
1972-73	293.61	140.92	107.33	327.20
1973-74	327.20	142.69	224.14	245.65
1974-75	245.65	169.66	49.91	365.40

**5.05. Return on investment**

(a) The Power Tariff Policy Committee (known as Venkataraman Committee), constituted by the Government of India (April 1964) to examine the financial position of State Electricity Boards, in their Report (October 1964) recommended, *inter alia*, the following:

- (i) "The first phase of the objective for all State Electricity Boards should be to aim at higher revenues sufficient to cover operation and maintenance charges, contributions to the general and depreciation reserves and interest charges on loan capital. Boards which have not already achieved this should aim at realising the objective within a period of three to five years" (Recommendation 7—Paragraph 20).
- (ii) "As the second phase objective, the Boards should aim at achieving a balance of revenue after meeting all the charges indicated in the first phase, working out a net return of 3 per cent on the capital base. Boards which have already achieved the first phase should immediately proceed to realise the second phase and other Boards should aim at achieving the second phase within three to five years of their achieving the first phase" (Recommendation 8—Paragraph 23).

(b) In pursuance of the recommendations of the Committee, the Board furnished an undertaking to Government (May 1969) to achieve different annual rates of return varying from 7.5 per cent to 9.5 per cent by the end of 1974-75. The return as achieved during the five years up to 1974-75 was as follows:

Year	Anticipated return	Retrn actually achioved
	(por cont)	
1970-71 .. .. .	7.5	7.9
1971-72 .. .. .	7.5	8.2
1972-73 .. .. .	8.5	8.8
1973-74 .. .. .	8.5	7.3
1974-75 .. .. .	9.5	7.5

(c) Steps proposed (May 1969) to be taken by the Board to improve the rate of return and the actual performance are mentioned below:

(i) **Revision of tariff structure**

The Board had effected major revision in its tariff in December 1974. The revision was not based on actual cost of generation, transmission and distribution of power but was made mainly with a view to raising additional funds. In spite of this revision, the overall return had not increased as the increase in operational expenses had more than offset the additional revenue raised. The following table indicates the growth of gross revenue during 1974-75 as compared to that of the previous year:

Year	Units sold (MKwh)	Revenue (In lakhs of Rupees)	Revenue per MKwh (Rupees)	Increase in revenue per MKwh (Rupees)
1973-74 .. .. .	2275	2925	1,28,571	..
1974-75 .. .. .	2426	3712	1,53,021	24,450

(ii) **Economy in generation expenses**

The following details would indicate the trend of cost of generation from year to year:

Year	Total operating expenses (exoluding power purchased)	Expenditure on generation	Percentage of generation expenses to total expenses	Average cost of generation of power per Kwh
	(In lakhs of Rupees)			(In Paise)
1972-73 .. .. .	2137.45	901.31	42.17	5.39
1973-74 .. .. .	2591.43	1134.70	43.78	6.01
1974-75 .. .. .	3428.93	1335.33	38.65	6.94

(iii) **Economies and efficiency in operation by better management of cash resources, better control over inventories, control over creation of posts and constant review of receivables, etc.**

The following table indicates the growth of staff, the trend of operating expenses, inventories, etc.:

Year	Staff employed at the end of the year	Total operating expenses (excluding power purchases)	Value of stores at the end of the year	Overall cost per Kwh at low tension terminal		Value of stores consumed per Kwh sent out
				(In lakhs of Rupees)	(In Paise)	
1972-73	13,340	2137.45	2191.32	26.32	2.66	
1973-74	25,748	2591.43	2218.31	30.55	3.35	
1974-75	28,711	3428.93	2339.51	38.34	3.07	

(iv) **Economy in operational expenses by reorganisation of revenue offices**

The trend of expenditure on billing, collection and accounting per unit sold and receivable for electricity supplied is indicated below:

Year	Expenses on billing, collection and accounting per Kwh sold	Sale of electricity	Sundry debtors for electricity supplied at the end of the year		Percentage of sundry debtors to sales
			(In Paise)	(In lakhs of Rupees)	
1972-73	0.58	2553.05	570.38	22.34	
1973-74	0.69	2925.02	635.09	21.71	
1974-75	0.93	3712.15	811.24	21.86	

(v) **Reduction in line losses**

The position of line losses is indicated below:

Year	Percentage of transmission and distribution losses
1972-73	9.0
1973-74	9.2
1974-75	9.1

**(d) Capacity utilisation**

At the time of giving the undertaking (1969) regarding rate of return, the Board estimated that in 1972-73, the sale of power would be 3000 MKwh. The Board actually sold 2425.90 MKwh during 1974-75. The actual utilisation of the installed capacity in 1974-75 was 40.1 per cent (including auxiliary consumption).

**6. Power development**

6.01. When the Board was formed, Government owned one hydel station (.80 MW) and thirteen diesel stations (2.65 MW). The following table indicates the progress achieved by the Board in generation, transmission and distribution and rural electrification :

**(a) Generation**

Installed capacity	As on 31st December 1955		As on 31st March 1974		As on 31st March 1975	
	MW	MKwh	MW	MKwh	MW	MKwh
hydel .. ..	0.80	7.00	34.00	297.84	34.50	302.22
thermal .. ..	0.65	5.69	473.00	4,143.48	495.60	4,341.46
diesel .. ..	2.65	23.21	12.00	105.12	18.20	159.43
<b>Total .. ..</b>	<b>4.10</b>	<b>35.90</b>	<b>519.00</b>	<b>4,546.44</b>	<b>548.30</b>	<b>4,803.11</b>

Maximum demand (MW)    Not available                      447.00                                      441.00\*

Generation (MKwh)	May to December 1955		1973-74	1974-75
	..	..		
hydel .. ..	..	..	1.80	84.00
thermal .. ..	..	..	1.75	1,796.00
diesel .. ..	..	..	1.97	8.00
<b>Total .. ..</b>	<b>..</b>	<b>..</b>	<b>5.52</b>	<b>1,888.00</b>
<b>Purchase (MKwh)</b>	<b>..</b>	<b>..</b>	<b>19.36</b>	<b>763.00</b>
<b>Sales (MKwh)</b>	<b>..</b>	<b>..</b>	<b>18.69</b>	<b>2,275.20</b>

\*Excluding help to D.V.C.

			As on 31st December 1955	As on 31st March 1974	As on 31st March 1975
<b>(b) Transmission and distribution</b>					
E.H.T. lines (Ckm)	..	..	Not available	2,246.1	2,575.4
H.T. lines (Ckm)	..	..	Not available	18,457.4	24,159.7
L.T. lines (Ckm)	..	..	Not available	7,560.7	10,348.8
<b>Power transformers</b>					
<b>(i) Step-up</b>					
Number	..	..	Not available	73	88
Capacity (MVA)	..	..	Not available	491.74	727.39
<b>(ii) Step-down</b>					
Number	..	..	Not available	311	330
Capacity (MVA)	..	..	Not available	1,158.10	1,249.65
<b>(iii) Distribution</b>					
Number	..	..	Not available	6,231	9,042
Capacity (MVA)	..	..	Not available	326.37	443.84
<b>(c) Number of consumers (lakhs)</b>					
Connected load (MW)	..	..	0.12	2.79	3.14
	..	..	21.87	1,019.54	1,131.43
<b>(d) Rural electrification</b>					
Number of mauzas electrified	..	..	511	8,708	9,470
Number of agricultural pump sets energised	..	..	Not available	6,470	7,694
<b>(e) Outlay and revenue (In lakhs of Rupees)</b>					
Capital expenditure on fixed assets	..	..	365.39	8971.45	9227.08
Capital works-in-progress	..	..	Not available	11688.66	14839.49
Gross revenue (annual)	..	..	36.76	2985.32	3822.10
<b>(f) Per capita consumption (Kwh)</b>					
	..	..	**58.0	**105.4	**103.1

\*\*Excludes consumption made from self-generating sets.

Note : Figures are based on Annual Accounts and Annual Statistics of the Board.



6.02. Out of 1,091.42 MW installed in the State during the period from January 1952 to March 1975, the share of the Board was 548.30 MW as shown in the following table :

	Private sector	D.V.C.	State Govern- ment	Munici- palities	W.B.S.E.B.	Total
(Installed capacity in megawatts)						
<b>As on 31st December 1951</b>						
hydel .. ..	0.80	..	..	1.96	..	2.76
thermal .. ..	539.90	..	..	..	..	539.90
diesel .. ..	2.26	..	0.86	0.39	..	3.51
<b>Total .. ..</b>	<b>452.96</b>	<b>..</b>	<b>0.86</b>	<b>2.35</b>	<b>..</b>	<b>546.17</b>
<b>As on 31st March 1975</b>						
hydel .. ..	..	60.00	..	1.96	[34.50	96.46
thermal .. ..	451.15	290.00	285.00*	..	495.60	1,521.75
diesel .. ..	..	..	..	1.18	18.20	19.38
<b>Total .. ..</b>	<b>451.15</b>	<b>350.00</b>	<b>285.00]</b>	<b>3.14</b>	<b>548.30</b>	<b>1,637.59</b>

6.03. In paragraph 4 of section V of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial), the plan outlay, target for growth of installed capacity and the physical achievement during the various plan periods were indicated. It was also pointed out in paragraph 6 *ibid* that according to the Board (August 1972) there was a shortage of power to the extent of 34 MW during 1971-72 which was expected to rise to 510 MW (469 MW in South Bengal and 41 MW in North Bengal) during 1976-77 unless additional schemes for power generation in North Bengal and South Bengal were taken up in hand immediately. The Board has undertaken execution of three projects with a total capacity of 610 MW sanctioned by the Planning Commission in June and October 1973.

6.04. **Survey and investigation:** The survey and investigation wing of the Board was created in 1957. As on 31st March 1975, the wing consisted of one circle with headquarters at Kurseong having two divisions situated at Kurseong and Kalimpong with two sub-divisions each. The expenditure incurred on survey and investigation during 1974-75 was Rs.7.47 lakhs as against average annual expenditure of Rs.2.41 lakhs during the Fourth Five-Year Plan period.

\*Installed capacity of the Durgapur Projects Limited

Note : Figures as on 31st December 1951 are based on "A Statistical Account 1955-73" compiled by the Board and those as on 31st March 1975 have been furnished by the Management.

### 6.05. Hydel power potential and exploitation

Ownig to easy availability of coal, South Bengal is fed by thermal power whereas North Bengal has to depend mainly on hydel and diesel stations. The following table indicates the position of the Board's hydel power in North Bengal as on 31st March 1975:

River basin	Power potential assessed by the Board (February 1959)	Installed capacity of schemes executed	Installed capacity of schemes under execution	Power potential of schemes awaiting approval of the Government of India	Power potential of schemes under investigation
(In megawatts)					
Tista .. ..	1,070.37	2.30	..	50.00	92.00*
Jaldhaka .. ..	150.46	27.00	8.00	..	..
Jaldhaka-Torsa .. ..	400.00	..	..	..	..
Raidak .. ..	162.10	..	..	..	..
Balasan .. ..	93.25	1.25	2.00	12.00	54.00
Total .. ..	1,876.18	30.55	10.00	62.00	146.00

Up to March 1975, investigation of Rammam hydroelectric scheme stage I (proposed installed capacity: 25 MW) was completed and project report was under preparation. Project report for stage II (50 MW) was awaiting approval of Government of India. Besides, 5 hydroelectric schemes with a total estimated installed capacity of 146 MW were under investigation, namely, Rammam hydroelectric scheme stage III (32 MW) and IV, (24 MW), Neora hydroelectric scheme (12 MW), Mahanadi hydroelectric scheme (24 MW) and Balasan hydroelectric scheme stage II (54 MW).

### 6.06. Projects under execution

The progress of projects under execution was indicated in paragraph 4 of section IV of the Report of the Comptroller and Auditor General of India for 1972-73 (Commercial) and paragraphs 4.3 of section V and 9 of section VII of the Report for 1973-74 (Commercial). Further developments during 1974-75 are indicated below:

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\*In addition, investigation in respect of a scheme for 25 MW has been completed.

**(A) Santaldih thermal project (4 × 120 MW)**

**(i) Revision of project cost:** After commissioning of the first unit, the cost estimate of the project has been revised (January 1976) for the third time. The table below shows the original and the revised estimates of the project prepared from time to time:

Project report (December 1965)	Revised estimate (April 1967)	Revised project report (March 1972)	Revised estimate (January 1976)
6 050	7556	8690	10000

(In lakhs of Rupees)

The reasons for revision of the estimate from time to time and the details of the estimate as revised in January 1976 are awaited (February 1976).

The expenditure on the project up to March 1975 was Rs.6202 lakhs.

**(ii) Unit II:** The second unit was commissioned in August 1975 against the target of commissioning by the fourth quarter of 1973 in the revised project report (March 1972). The following reasons were reported (June 1974) by the consultants to the Management for the delay in commissioning:

- (a) Slow progress of civil works mainly due to delay in payment to the contractors;
- (b) Suspension of work by the engineers of the Board from January 1974 to March 1974;
- (c) Delay in supply of components of the turbo-generator by Bharat Heavy Electricals Limited;
- (d) Delay in erection of boilers; and
- (e) Unsatisfactory performance of boiler feed pumps supplied by Bharat Heavy Electricals Limited.

One of the pumps supplied for unit II was utilised in unit I as the original pump installed in that unit was found to be defective in design. The defective pump was taken to Hyderabad by the supplier in February 1975 and returned after repair in September 1975.

**(iii) Units III and IV:** As per the latest schedule prepared in September 1975, the third and fourth units of the plant are expected to be commissioned in March 1977 and December 1977 as against the fourth quarter of 1975 and 1976 respectively according to the revised project report (March 1972). The slow progress, as reported by the Management

(September 1975), was due to paucity of funds, delay in procurement action, civil works, mechanical works, etc. Some specific cases of delay are stated below :

- (a) Civil works relating to foundation tunnel trenches were awarded to a firm of Calcutta in May 1973 at a cost of Rs.27.04 lakhs. The works were taken up in September 1973, and were due to be completed by August 1974; the value of work done up to July 1974 was only Rs.8.27 lakhs. The contractor was granted extension of time up to the end of June 1975 as the site for the works was not made available to him in time. The consultants also failed to furnish the requisite drawing in time. The works have not yet been completed (September 1975).
- (b) An order was placed in February 1974 on a Calcutta firm for supply, erection and commissioning of raw water treatment plant for the units at a cost of Rs.4.27 lakhs. The erection work which was due for completion by February 1975 is yet to be completed (September 1975).
- (c) The works relating to supply, erection and commissioning of ash handling plants for units III and IV awarded to a firm in July 1971 at a cost of Rs.95.21 lakhs were due to be completed in 118/122 weeks (that is, November and December 1973 for units III and IV respectively) from the date of order; the erection work has not been taken up so far (September 1975).

**(B) Bandel thermal plant (Fifth unit of 200 MW)**

As mentioned in paragraph 7 of section VI of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial), the Planning Commission approved (August 1972) the expansion of Bandel thermal power station by another 200 MW. The estimated cost of the fifth unit has been revised by the Board (October 1974) from Rs.3331.40 lakhs to Rs.5953.38 lakhs due to "unprecedented price escalation" and to Rs.6351 lakhs (January 1976) to accommodate fresh provisions for housing, freight, taxes and duties, insurance, etc. and increase in estimated cost of the power house and steel structures. The target date of commissioning of the unit has been revised from 1976-77 to the first quarter of 1980.

The work commenced in June 1973. The progress of work has been slow, as stated by the Board, due to financial stringency. The expenditure incurred up to March 1975 was Rs.489 lakhs.

**(C) Kolaghat thermal project (3 × 200 MW)**

As has been mentioned in paragraph 4.3 (k) of section V of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial), a scheme for installation of three 200 MW sets at Kolaghat was approved (June 1973) by the Planning Commission at an estimated cost of Rs.11559 lakhs.

The estimated cost has been revised by the Board to Rs.19253.47 lakhs (October 1974) mainly due to increase in the cost of civil works in the plant area arising out of (i) additional structures, (ii) substantial rise in the cost of development of land and (iii) increase in the cost of piling and foundation work of the power house building, etc.

The work on the project commenced in January 1974. Up to March 1975, preliminary works like acquisition and survey of land, primary civil works like earthwork for development of approach roads, construction of site office and store sheds have been mostly completed. Orders for turbo-generators and boilers have been placed and a letter of intent for erection, commissioning and testing of one boiler has been issued. Although many components of the boilers fabricated at Durgapur and the U.K. have reached the project site, the erection contractor has not commenced work (March 1976) due to non-payment by the Board of 10 per cent advance of the estimated erection cost as per terms of the contract. The components are being received at the project site by the Board's officials instead of by the erection contractor as stipulated in the contract.

The Board stated (August 1975) that desired progress could not be achieved due to stringency of funds. While all the units were scheduled to be commissioned by 1979, the target date of commissioning of the first and second units has been revised (September 1975) to December 1980. The expenditure incurred up to March 1975 was Rs.691.63 lakhs.

**(D) Jaldhaka hydel project (stage II—2×4 MW)**

Mention was made in paragraph 9 of section VII of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial) of stage II extension of Jaldhaka hydel project. The estimated cost of stage II of the project, as revised from time to time, and the actual expenditure incurred up to March 1975 were as follows:

Project approved by the Planning Commission (October 1973)	Revised estimate (January 1976)	Actual expenditure
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(In lakhs of Rupees)

315.56	609.00	55.00
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The work on the project commenced in May 1973 and the major civil works were due to be completed by the contractors by June 1975. According to the Management (May 1975) sufficient progress could not be achieved

due to (i) failure on the part of the contractors to engage sufficient strength of labour, (ii) failure on the part of the Board to supply machinery and vital materials like steel for penstock and (iii) paucity of funds. The project is scheduled to be completed by 1977-78.

**(E) Rammam hydel project (stage II—4 × 12.5 MW)**

The power potential of the Rammam river is proposed to be harnessed in four stages commensurate with the load demand. Stage II is being taken up first is consideration of higher output and easier approach. This stage of the project envisages generation of 50 MW of power at 50 per cent load factor inclusive of seasonal power by utilising the Rammam and the Lodhama Khola waters in the district of Darjeeling. Project report for stage II was submitted to the Planning Commission in May 1975 and is awaiting its approval (February 1976). Pending approval, preliminary works like construction of approach roads, store sheds, staff quarters, etc. have been taken up from March 1974. The estimated cost of the project is Rs.1480 lakhs. The expenditure incurred up to March 1975 was Rs.16 lakhs against work orders issued for Rs.199 lakhs.

**7. Generation**

7.01. Generation of power in the State (including power station auxiliaries) increased from 1,207.3 million units in 1951 to 5,535.3 million units in 1973-74. Board's own generation rose from 5.5 million units in 1955-56 to 1,888.0 million units in 1973-74 and 1,924.1 million units in 1974-75 as indicated below:

Year	Thermal	Hydel	Diesel	Total
	(In million units)			
1955-56	1.8	1.8	1.9	5.5
1960-61	..	4.0	4.7	8.7
1965-66	324.9	6.5	11.7	343.1
1967-68	999.6	17.5	9.8	1,026.9
1968-69	1,188.4	25.1	12.0	1,225.5
1969-70	1,355.2	28.9	14.1	1,398.2
1973-74	1,796.0	84.0	8.0	1,888.0
1974-75	1,821.2	97.0	5.9	1,924.1

*Note:* Figures up to 1969-70 are based on "A Statistical Account 1955-73" compiled by the Board.

7.02. The total installed capacity of the Board's plants amounted to 81.1 per cent of the energy requirement of the State and the Board's actual contribution to 31.1 per cent of the total energy requirement of the State at the end of the Fourth Plan, *vide* details given in the table below:

Year	Installed capacity of the Board (MW)	Firm capacity of the Board (MW)	Percentage of firm capacity to installed capacity	Energy requirement in the State		Percentage of installed capacity of the Board to energy requirement in the State	Net generation by the Board (that is, excluding station auxiliaries)		Percentage of net generation by the Board to energy requirement in the State	Percentage of net generation by the Board to installed capacity	
				(MKwh)	(MW)		(MKwh)	(MW)			
1	2	3	4	5	6	7	8	9	10	11	
1969-70	..	395.25	261.25	66.1	5,215.00	595.32	66.4	1,283.36	146.50	24.6	37.1
1970-71	..	409.10	262.95	64.3	5,225.10	596.47	68.8	1,374.80	156.94	26.3	38.4
1971-72	..	412.20	243.30	59.0	5,532.41	631.55	65.3	1,373.90	156.83	24.8	38.0
1972-73	..	421.70	243.30	57.7	5,853.97	668.26	63.1	1,544.14	176.28	26.4	41.8
1973-74	..	519.00	339.00	65.3	5,609.23	640.32	81.1	1,745.80	199.29	31.1	38.4
1974-75	..	548.30	339.00	61.8	..	..	..	1,757.10	200.58	..	36.6

Note: (i) 'Energy requirement' represents energy sold plus transmission and distribution losses.

(ii) Firm capacity refers to the generating capacity of a power station determined after due allowance for normal overhauling and maintenance of generating sets and normal losses. Availability of water is also taken into consideration in fixing the firm capacity of the hydel power stations.

(iii) Figures at columns 2 and 8 have been taken from subsidiary statement XI of the annual accounts, those at column 3 from 'Annual Statistics' (till 1970-71) and 'Budget' (1971-72 onwards) and those at column 5 from 'Annual Statistics'.

7.03. As indicated in the above table, utilisation of the Board's generating plants was 38.4 per cent during 1973-74 and came down to 36.6 per cent in 1974-75.

7.04. The net generation of power at the major stations of the Board for the years 1973-74 and 1974-75, as compared to the net generation expected of them in the project reports, is indicated below :

Stations	Installed capacity (MW)	Not generation as per project report	Actual net generation	
			1973-74	1974-75
			(In million units)	
Bandel thermal .. ..	350	1750.80	1603.00	1203.68
Santalidih thermal (commissioned in January 1974)	120	516.50	..	329.11
Jaldhaka hydel .. ..	27	94.71	59.23	68.74

Note : 'Net generation' excludes power station auxiliaries.

7.05. The annual plant factor (percentage of generation to installed capacity) of the power stations of the Board for the three years up to 1974-75 is indicated in Annexure 'C'. One of the reasons for the low annual plant factor was extensive shut down of generating plants caused by scheduled and forced outages. Mention was made in paragraph 3.03 of section VI and paragraph 5.2 of section VII of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial) of the outages of Bandel and Jaldhaka plants for the five years up to 1973-74. The particulars of outages of the plants of the major generating stations during 1974-75 are indicated below :

(a) **Bandel thermal power station (annual plant factor 47.6 per cent)**

Unit	Scheduled shut-down	Forced shut-down	Brief reasons for forced shut-downs
	(In hours)		
I ..	1656	446	Boiler tube leakage (economiser zone), boiler tube rupture in the furnace zone, instrument air trouble, etc.
II ..	..	426	Boiler tube leakage, economiser tube leakage, tripping through generator-differential protection, etc.
III ..	3839	75	Fire out as well as ignitor troubles, maintenance work of the west side bus at the switch yard, operation of differential protection relay, etc.
IV ..	..	504	Leakage in de-aerator, boiler tube leakage (re heater zone), gland steam condenser valve leakage, suspected tube leakage in the economiser-short blower zone, etc.



**(b) Santaldih thermal power station (annual plant factor 35.4 per cent)**

Unit	Scheduled shut-down	Forced shut-down	Brief reasons for forced shut-downs
	(In hours)		
I	..	1845	Boiler fire out, dewatering pump trouble, beaking of hydrogen seal, leakage in oil line of generator bearing, fault in generator stator (bus duct), economiser tube leakage, the transformer-differential relay operation, leakage in deaerator storage tank, etc.

**(c) Courepur power station (annual plant factor 22.2 per cent)**

I	..	1488	Condenser tube leakage, governor repairing, etc.
II	..	2016	Condenser tube leakage, governor repairing, etc.

**(d) Jaldhaka hydel project (annual plant factor 29.8 per cent)**

I	..	8760	Major overhauling
II	..	272	Leakage in carbon stuffing box, fault in rotor earth, and water-cooling pump, maintenance of turbine, etc.
III	..	736	Fault in bus earth, drawing oil and water from turbine guide bearing, changing of carbon ring, maintenance of turbine top cover, etc.

Mention was made in paragraph 3.04 of section VI of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial) of the scheduled and actual dates of overhauling of turbo-generators of different units of Bandel thermal power station. Subsequent dates of scheduled and actual overhauling of the turbo-generators of the power station are shown below :

Unit	Due in	Done during
I	.. May 1975	.. .. Not done (January 1976)
II	.. January 1974	.. .. Not done (January 1976)
III	.. May 1972	.. .. 23rd October 1974 to 5th April 1975
IV	.. January 1975	.. .. Not done (January 1976)

*Note :* The units were commissioned between December 1965 and October 1966.

The due and actual dates of overhauling of the turbo-generators, since installation, of two other major power stations are also indicated below :

**Santaldih thermal station**

Unit	Commissioned in	Due in	Done during
I	.. January 1974	.. January 1975	.. Not done (September 1975— date of audit)
II	.. August 1975	.. Not due till August 1976	....

**Jaldhaka hydel station**

Unit	Commissioned in	Due in	Done during
I	.. March 1967	.. March 1968	.. 23rd November 1971 to 2nd March 1972
		March 1975	.. 25th September 1973 to 7th July 1975
II	.. June 1967	.. June 1968	.. 26th March 1972 to 26th September 1973
III	.. November 1972	.. November 1973	.. Not done (August 1975-date of audit)

The Board stated (January 1976) that "normally turbo-generators are opened up and inspected for the first time after one year's operation. Thereafter depending on the condition of the water and other parameters it may be overhauled after 20,000 hours or more".

The Management could not furnish due dates of overhauling of boilers of different thermal power stations. They, however, stated (January 1976), 'as per statutory regulation, each boiler has to be overhauled after twelve months' operation. However, due to exigencies of circumstances in many cases relaxation of this regulation was obtained from the Governor and the boilers run for more than twelve months".

**7.06. Power rationing:** To adjust supply of power during peak and off-peak hours, restriction on drawal of power by different consumers, by regulating their maximum demand during peak hours, was imposed by Government in November 1971.

An Action Group consisting of the representatives of the Board, Damodar Valley Corporation, Durgapur Projects Limited, Calcutta Electric Supply Corporation Limited and Dishergarh Power Supply Company Limited was formed in September 1972 by the Chairman of the Board to finalise a scheme for staggering the supply. On the basis of the recommendations of the Action Group, Government imposed (December 1972) certain restrictions on drawal of power by the consumers which included 15 per cent cut of maximum demand and staggering of one day per week in case of high tension consumers and closure of all medium or low voltage industrial units for five hours in the evening of each working day.

The position was again reviewed in April 1973 when the shortfall in system demand was assessed to be 100 MW and 110 MW during day and evening respectively, over 420 MW and 460 MW of power available for supply during the corresponding period. To minimise the gap, power rationing was further intensified in August 1974, mainly by staggering supply for one day more in the week. It was expected that intensification of the rationing would wipe out the deficit by about 80 MW and the load shedding might be restricted to 15/20 MW per day during peak hours.

7.07. Pattern of supply: The pattern of supply of power in the State by the various units during the year 1973-74 was as under:

Units	Installed capacity (MW)	Percentage of total for the State	Generation including station auxiliaries (MKwh)	Share in generation (per cent)	Gross sale (MKwh)	Sale to ultimate consumer excluding sale to licensees (MKwh)]	Share of sale to ultimate consumers (per cent)
West Bengal State Electricity Board ..	519.00	31.3	1,888.00	34.1	2,275.20	1,227.57	24.4
Calcutta Electric Supply Corporation Limited	472.00	28.5	1,668.85	30.1	2,709.60	2,694.35	53.5
Damodar Valley Corporation (West Bengal)	350.00	21.1	1,059.71	19.2	1,541.82	590.39	11.7
Durgapur Projects Limited ..	285.00	17.2	829.28	15.0	757.23	200.15	4.0
Others ..	29.51	1.9	90.00	1.6	359.35	320.71	6.4
<b>Total ..</b>	<b>1,655.51</b>	<b>100.0</b>	<b>5,535.84</b>	<b>100.0</b>	<b>7,643.20</b>	<b>5,033.17</b>	<b>100.0</b>

Note: Figures relating to the units other than the Board are based on 'Annual Statistics 1973-74' compiled by the Board.

**7.08. Thermal efficiency:** The thermal efficiency of generation (percentage of total heat energy equivalent to the electricity sent out to the amount of heat energy in the fuel consumed in generation) of two thermal stations during the five years up to 1974-75 is indicated below :

Stations	1970-71	1971-72	1972-73	1973-74	1974-75
	Thermal efficiency (per cent)				
Bandel .. ..	31.6	29.7	30.7	31.0	31.0
Gourepore ..	Not available.	14.0	13.5	13.9	13.5

As stated by the Management (August 1975), the low thermal efficiency of Gourepore power station was due to use of inferior grade of coal. The thermal efficiency of other stations, viz. Santaldih, Dishergarh and Farakka has not been assessed by the Board.

**7.09.** The overall performance of the individual generating plants, including three diesel stations, for the three years up to 1974-75 is indicated in Annexure 'D'.

## 8. Transmission and distribution

8.01. Mention was made in paragraph 7 of section V of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial) of the expenditure and physical progress in transmission and distribution network during the Fourth Plan period.

8.02. The following table indicates the transmission and distribution facilities built up during the five years up to 1974-75 :

	1970-71	1971-72	1972-73	1973-74	1974-75
(i) Installed capacity (MW)	409.08	412.21	421.70	519.00	548.30
(ii) Length of lines (Ckm)	16,550	17,347	22,915	28,264	37,084
(iii) Sub-station transformers					
(a) Transmission					
Number ..	288	318	335	384	418
Capacity (MVA) ..	1,297.04	1,430.69	1,484.79	1,649.84	1,977.04
(b) Distribution					
Number ..	2,967	3,224	3,907	6,231	9,042
Capacity (MVA) ..	185.88	202.96	240.14	326.37	443.84
(iv) Number of consumers					
(a) total .. ..	1,76,110	1,90,643	2,38,937	2,79,486	3,14,147
(b) average per Ckm of line.	10.64	10.99	10.42	9.90	8.47
(c) per MVA of distribution transformer capacity	947	939	996	850	707

	1970-71	1971-72	1972-73	1973-74	1974-75
(v) Power sold (MKwh)					
(a) total .. ..	1801.82	1917.12	2080.65	2275.20	2425.90
(b) average per Ckm of line.	0.11	0.11	0.09	0.08	0.07
(c) average per MVA of distribution transformer capacity	9.7	9.4	8.7	7.0	5.5
(vi) Revenue earned from sale of electricity					
(a) total (in lakhs of Rupees)	2109.36	2253.21	2553.05	2925.02	3712.15
(b) average per Ckm of line (in lakhs of Rupees)	0.13	0.13	0.11	0.10	0.10
(c) average per MVA of distribution transformer capacity (in lakhs of Rupees)	11.35	11.10	10.63	8.96	8.35

*Note :* Figures upto 1973-74 are based on 'Annual Statistics' compiled by the Board and those for 1974-75 have been furnished by the Management.

While the length of transmission and distribution lines has been increasing, the number of consumers per Ckm of line increased up to 1971-72 but decreased in subsequent years. The number of consumers per MVA of distribution transformer capacity showed a decreasing trend except in 1972-73 when it registered a rise followed by decrease in 1973-74 and 1974-75. Revenue earned per Ckm of line and per MVA of distribution transformer capacity has been decreasing.

8.03. The growth of connected load in the Board's system during the years 1970-71 to 1974-75 was as follows :

	1970-71	1971-72	1972-73	1973-74	1974-75
Connected load (MW) ..	729.95	843.71	938.90	1,019.54	1,131.43
Percentage growth of connected load.	2.8	15.5	11.2	8.5	10.9
Number of consumers ..	1,76,110	1,90,643	2,38,951	2,79,486	3,14,147
Percentage growth of consumers.	11.4	8.2	25.3	16.9	12.4

*Note :* Figures of connected load have been taken from the 'Annual Statistics' of the Board.

**8.04. Transmission system for power generated at Santaldih thermal power station:** The Project report for Santaldih power station (1965) envisaged installation of two 400 kv feeders for transmission of power from Santaldih to the load centres. One feeder would terminate at Bhaskar and the other at the power station of the Durgapur Projects Limited. From Durgapur another 400 kv transmission line would transmit power to Barasat. The associated 400 kv sub-stations would each consist of two generator bays, two feeder bays and a bus coupler bay for  $4 \times 120$  MW units. However, it was finally decided (January 1969) that transmission of power from Santaldih would be at 220 kv. The construction of transmission lines and associated sub-stations was to be taken up in two stages. In the first stage, 220 kv double circuit line between Santaldih and Durgapur (100 km) and between Santaldih and Howrah (250 km) including 220/132 kv sub-stations at Durgapur and Howrah were included. Besides, 132 kv double circuit lines from (i) Santaldih to Purulia (35 km), (ii) Sonarpur to Kasba (13 km), (iii) Ashokenagar to Kasba (60 km) and (iv) Dharampur to Ashokenagar (22 km augmentation), and 132 kv sub-stations at Sonarpur, Behala and Purulia were also to be completed. The second stage covered laying of 220 kv double circuit line from Durgapur to Kasba and 220/132 kv sub-stations at Kasba and Durgapur (augmentation). The estimated expenditure for the entire work of transmission including sub-stations was Rs.1556.28 lakhs. Stage I was to be completed along with the commissioning of the first two generating units (revised target date—fourth quarter 1973) and stage II was to be completed along with the commissioning of the third and fourth generating units (revised target dates for third and fourth units—first and fourth quarter 1977 respectively). The table below indicates the estimated cost, actual expenditure and date of completion of the components of the transmission scheme:

Name of work	Amount of sanctioned estimate (January 1969)	Value of work order	Actual expenditure up to March 1975	Date of completion
(In lakhs of Rupees)				
<b>Stage I</b>				
220 kv Santaldih-Durgapur double circuit line	182.00	180.00	214.76	June 1973
220 kv Santaldih-Howrah double circuit line	389.00	472.11	346.91	April 1975
220/132 kv sub-station at Durgapur	151.70	304.40	186.80	Not completed (March 1976)
220/132 kv sub-station at Howrah	107.70	101.58	130.44	August 1975
220 kv sub-station at Kasba ..	32.00	62.34	58.16	Not completed (March 1976)
132 kv Sonarpur-Kasba double circuit line	12.20	17.31	20.80	May 1975

Name of work	Amount of sanctioned estimate (January 1969)	Value of work order	Actual expenditure up to March 1975	Date of completion
(In lakhs of Rupees)				
132 kv Ashokenagar-Kasba double circuit line	56.40	50.88	54.89	March 1971
132 kv Santaldih-Purulia double circuit line	32.90	31.62	36.44	February 1972
132 kv Dharampur-Ashokenagar double circuit line	20.00	17.06	20.53	November 1975
132 kv sub-station at Sonarpur ..	25.15	32.70	27.15	Not completed (March 1976)
132 kv sub-station at Behala ..	77.53	29.74	29.94	October 1975
132 kv sub-station at Purulia ..	12.00	13.94	11.29	February 1972
Stage II				
220 kv Durgapur-Kasba double circuit line	434.00	}	Works not taken up (March 1976)	
220/132 kv sub-station at				
(a) Kasba .. ..	67.90			
(b) Durgapur (augmentation)	23.80			
Total ..	1556.28			

Note : Figures are based on Schedule of Works 1974-75.

In addition to the abovementioned works, the Board decided (1969 to 1974) to undertake the construction of

- (i) 132 kv Durgapur-Gokarna double circuit line (100 km),
- (ii) 132 kv Durgapur-Bishnupur single circuit line (51 km),
- (iii) 132 kv Farakka-Khejuria double circuit cable line over Farakka barrage road bridge (6 km),
- (iv) Stringing of second circuit of 132 kv Gokarna-Farakka double circuit line (110 km), and
- (v) 132 kv Khejuria-Raiganj double circuit line *via* Malda (115 km).

The following points were noticed in respect of some of the schemes mentioned above:

**(a) 220 kv Santaldih-Durgapur double circuit line (100 km)**

The work estimated to cost Rs.180 lakhs was awarded to a firm of Calcutta (lowest tenderer) in November 1970. Erection of the line was completed in June 1973. Actual expenditure booked in the accounts up to March

1975 was Rs.215 lakhs. The excess expenditure awaited regularisation by the Board (September 1975). The line was charged (January 1974) at 132 kv after commissioning of the first unit of Santaldih power station in January 1974. Raw steel weighing 2,864.574 tonnes was supplied to the fabricator, against which 2,072.254 tonnes (including 5 per cent wastage) of tower members were delivered. The value of the balance quantity of raw steel (792.320 tonnes) costing Rs.41.08 lakhs (approximately) was not adjusted. The contractor was given another work on negotiated rates in March 1974 and was allowed to utilise the excess quantity of steel on that work.

**(b) 220/132 kv sub-station at Durgapur**

The transmission line from Santaldih was to terminate at the 220/132 kv sub-station at Durgapur, wherefrom one 220 kv line would proceed to Kasba. Another 132 kv line would transmit power from this sub-station to Gokarna. The sanction of the Board for the sub-station, estimated to cost Rs.58.50 lakhs (comprising only cost of land including development and structures and foundation), was obtained in November 1971. The revised estimate of Rs.304.40 lakhs (including cost of sub-station equipment for both 220 and 132 kv sections) was sanctioned by the Board in September 1975. The procurement action for long delivery item for the work valuing Rs. 92.31 lakhs was taken up between November 1970 and May 1972. Land measuring 84.25 acres was acquired in February 1971. The original target date of completion of the sub-station was May 1973. The sub-station is not yet complete (January 1976). The cost incurred up to March 1975 was Rs.186.80 lakhs. The delay in completion was mainly due to

- (i) non-availability of 100 MVA transformer from the supplier, and
- (ii) belated supply of fabricated sub-station structures by the fabrication contractor.

The delay in construction of the sub-station compelled the Management to divert power from the Santaldih thermal power station through Damodar Valley Corporation grid at Purulia till 10th April 1975, *vide* also paragraph 4.3(h) of section V of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial).

**(c) 220 kv Santaldih-Howrah double circuit line via Bishnupur (250 km)**

Although the scheme for transmission of power from the Santaldih station was approved in January 1969, the work of fabrication and erection of the above line was awarded to a firm of Madras in November 1971 at an estimated cost of Rs.472.11 lakhs. The work was to be completed by June 1974. There was a delay of about one year in completion of the work, which the contractor attributed to delayed supply of raw steel material to them by the Board. The line was completed and energised at 132 kv in April 1975; with the completion of Howrah 220/132 kv sub-station, the line was charged at 220 kv in August 1975. The actual expenditure till 31st March 1975 was Rs.346.91 lakhs.



As against the estimated requirement of 5,155.070 tonnes of steel for the entire line indicated in the work order, the actual quantity supplied to the fabricator was not available from the books of the Board. The fabricator informed the Board (June 1975) that he had despatched 6,390 tonnes of tower members but the Board accounted for 6,124 tonnes only. It was noticed at the time of audit (September 1975) that the steel account remained unreconciled.

The contractor had 80 km of conductor (approximate value: Rs.2.04 lakhs) in his custody on completion of the work; the Board has not arranged for its return. Besides, accounts of utilisation of nuts and bolts valuing Rs.32.85 lakhs were not available at the time of audit (September 1975).

**(d) 220/132 kv sub-station at Howrah**

Technical sanction for the work was obtained in February 1972 at an estimated cost of Rs.191.58 lakhs. The target date of completion of the sub-station was December 1974. Orders were placed on a Japanese firm for four 150 MVA 220/132 kv transformers (two for Kasba sub-station) to be delivered by August 1974. The date of delivery was extended by the Board up to September 1974. The first consignment of two transformers arrived at Calcutta in April 1974 but could not be transported to Howrah sub-station site before November 1974 due to non-availability of Railway wagon and heavy crane facilities, resulting in the payment of demurrage charges amounting to Rs.0.50 lakh to the port authorities. During transportation, the transformer radiators got damaged and nitrogen gas of one transformer leaked out. The damaged radiators were replaced by those of the two transformers received for Kasba sub-station. The Management reported (November 1975) that arrangements were being made to get the radiators repaired. The loss incurred on this account has not been assessed (November 1975).

Work relating to the construction of foundation and cable trenches for 220 kv and 132 kv sections was awarded to two different contractors in December 1973 at a total cost of Rs.45.92 lakhs, to be completed by July 1974. There was delay in completing the 220 kv section reportedly due to delayed supply of steel and cement by the Board. The 132 kv section was delayed as the foundation was not according to specification as per drawing. The extra expenditure involved in reconstruction of the foundation amounted to Rs.42,355; of this Rs.18,477 being the value of materials have been withheld from the contractor's running account bill. The sub-station was energised at 132 kv in April 1975. With the completion of the 220 kv section, the sub-station was charged at 220 kv in August 1975.

**(e) 132 kv double circuit line from Durgapur 220/132 kv sub-station to 'A' zone sub-station of Durgapur Projects Limited**

Apprehending delay in completion of the 220/132 kv Durgapur sub-station it was mutually agreed between the Durgapur Projects

Limited and the Board in February 1973 that one circuit of 220 kv Santaldih-Durgapur transmission line would terminate at Durgapur sub-station and one 132 kv double circuit line from this point to 'A' zone sub-station of Durgapur Projects Limited would be constructed for the purpose of evacuation of Santaldih power to the Bandel grid, including bulk power supply to the Fertilizer Corporation of India Limited at Durgapur. The erection work of 132 kv line was awarded in July 1972 at an estimated cost of Rs.22.70 lakhs, to be completed by April 1973. Anticipating delay in completion of erection of the line due to belated delivery of structurals by the fabrication contractor, construction work of a temporary line on rail pole was placed in February 1973 with the same contractor at a cost of Rs.2 lakhs. This was completed in May 1973. The 132 kv double circuit line was completed and commissioned on 29th November 1973. The expenditure booked in the accounts of the Board till March 1975 was Rs.12.33 lakhs. The flow of power between Santaldih and 'A' zone sub-station of the Durgapur Projects Limited remained suspended after occurrence of two accidents at the sub-station in April 1974. Since then, the 132 kv double circuit line remained unutilised, except for feeding back the emergency survival power required for Santaldih generating station. The temporary rail pole line has been earmarked for dismantling at an estimated expenditure of Rs.19,500.

**(f) 132 kv Santaldih-Purulia double circuit line**

Tenders were invited in July 1969 for the above work. A Calcutta firm which was the lowest tenderer was awarded the fabrication and erection work of the line in February 1970 at an estimated cost of Rs.7.21 lakhs excluding cost of materials. The line was due to be completed by March 1971 but was completed in February 1972, i.e. one year after the stipulated time, and energised at 11 kv. For the fabrication work, the contractor was allowed 10 per cent (3 per cent unaccountable and 7 per cent accountable) wastage on the raw steel to be supplied by the Board in random lengths, as against the normal five per cent (3 per cent unaccountable and 2 per cent accountable) wastage allowed in the case of Durgapur-Gokarna, Ashokenagar-Kasba and Kasba-Sonarapur lines awarded to the same contractor. The supply provision was revised in July 1970 and the contractor was asked to procure 560 tonnes of raw steel (approximately) from the market as the Board could not supply raw steel to the contractor. The total quantity of raw steel required for fabrication of the tower members, inclusive of 10 per cent wastage, was 487.493 tonnes as per the contract; the contractor was paid for 542.997 tonnes of tower structures inclusive of 49.363 tonnes of wastage. The additional expenditure incurred by the Board on (i) procurement of steel from open market instead of at J.P.C. rates and (ii) allowance of higher percentage of wastage worked out to Rs.2.78 lakhs and Rs.0.46 lakh respectively.

The expenditure including cost of materials as booked in the accounts (March 1975) amounted to Rs.36.44 lakhs.

**(g) 132 kv Farakka-Khejuria double circuit cable line over Farakka barrage road bridge**

The laying of 6 km 132 kv double circuit cable over Farakka bridge, connecting Farakka and Khejuria, for transmission of Santaldih power, was technically sanctioned (June 1971) at an estimated cost of Rs.42.26 lakhs. Although the work was awarded to a contractor in December 1972 and was due to be completed by March 1973, it has not been completed (March 1976).

Order for supply of 18,000 yards of oil-filled cable with other accessories was placed with a firm of Italy in November 1973 at a cost of Rs.30.92 lakhs. Besides, an amount of Rs.3.78 lakhs was to be paid to the foreign suppliers for technical supervision. The cable was supplied by the firm in July 1974. While unloading the material at the dock, some packages were found in damaged condition by the Board's officials and a claim for Rs.8.84 lakhs was lodged with the insurance company (October 1974). The claim is yet to be settled (February 1976). Another order was placed in April 1975 with the same firm for 1,848.2 yards of cable at a cost of Rs.8.84 lakhs (delivery within June 1975). The material was received at site in January 1976.

**(h) 132 kv Kasba-Sonarpur double circuit line (13 km)**

Construction of the line was taken up in May 1969 at an estimated cost of Rs.11.40 lakhs, subsequently raised to Rs.17.31 lakhs (February 1974). The work was scheduled to be completed in March 1972. As the erected section of the line was not kept charged, the line materials (conductors, galvanised iron wire, etc.) including a few tower members were stolen (August 1974). The cost of the stolen materials including labour charges was assessed by the Board (April 1974) at Rs.5.96 lakhs. The line was reconstructed by the contractor and completed in May 1975.

At one point the line was to cross railway track. Before the drawings indicating the location of the crossing were approved by the Railways, the works of stub setting and erection of tower members along the railway track were done. The towers had to be dismantled as required by the Railways and were re-erected, involving an additional expenditure of Rs.0.37 lakh.

**8.05. Transmission of hydel and diesel power in North Bengal:** To supply power to different load centres in North Bengal, a 66 kv net-work was erected by the Board connecting Jaldhaka hydel plant with Siliguri at one end and Cooch Behar at the other. The diesel power stations at Siliguri, Cooch Behar and Birpara were also connected with the 66 kv net-work.

From Jaldhaka, one 66 kv double circuit transmission line stretched up to Chalsa from where one single circuit line went up to Siliguri. The other 66 kv single circuit line from Chalsa connected Cooch Behar.

Besides this, 33 kv and 11 kv transmission net-work connecting different load centres at Banarhat, Madarihat, Kalchini, Chapramari, Mainaguri, Changrabandha, etc. was built up. The total length of 33 kv and 11 kv transmission lines up to March 1975 was 199.3 Ckm and 1,390.0 Ckm respectively.

The extra high tension lines and associated sub-stations including inter-State system constructed in North Bengal area are detailed below with their estimated cost, actual expenditure and date of completion :

Name of work	Sanctioned cost	Value of work order	Actual expenditure up to March 1975	Date of completion
(In lakhs of Rupees)				
132 kv Alipurduar-Sankosh single circuit line and associated sub-station	35.00	48.02	39.07	December 1973
132 kv Dalkhola-Siliguri single circuit line	82.16	72.65	90.24	August 1974
Augmentation of sub-station of North Bengal University	65.75	65.75	9.00	Not completed (March 1976)
132/33 kv sub-station at Dalkhola	33.12	33.12	26.36	Not completed (March 1976)
132 kv Khojuria-Malda-Raiganj double circuit line	86.12	86.12	Not available.	Not completed (March 1976)
132/66/33 kv sub-station at Malda	46.00	46.00	Not available.	Not completed (March 1976)
132 kv Raiganj-Balurghat single circuit line and associated sub-station	95.26	95.26	63.16	October 1973

Note : Figures are based on Schedule of works 1974-75.

Major construction works are discussed hereunder :

(a) Construction of the following Centrally-sponsored inter-State transmission lines and terminal equipment was taken up by the Board :

Name of the line and sub-station	Portion falling in the State (In km)	Estimated cost (In lakhs of Rupees)
132 kv single circuit line from Alipurduar sub-station to Sankosh (Assam border) with arrangement for terminal equipment at Alipurduar sub-station	38	35
132 kv single circuit line from Dalkhola to Siliguri with arrangement for terminal equipment at Siliguri sub-station at North Bengal University	128	82.16

**(i) 132 kv Alipurduar to Sankosh (Assam border) single circuit line and augmentation of Alipurduar sub-station**

With a view to utilising 8 MW power expected to be received from the Assam State Electricity Board, the above scheme was taken up by the Board (October 1969) under Centrally-sponsored inter-State transmission schemes. Technical sanction for the work was accorded (October 1969 and June 1970) at a cost of Rs.35 lakhs; construction of the line was completed in September 1972 at a cost of Rs.26.33 lakhs and augmentation work of the sub-station with 132/66 kv transformer was completed in December 1973 at a cost of Rs.12.74 lakhs. No agreement was entered into with the Assam State Electricity Board for supply of power through the grid as the Assam portion of the inter-State line was not complete; the line remained unutilised (March 1976).

**(ii) 132 kv Dalkhola-Siliguri single circuit line**

To utilise 6 MW power expected to be available from the Bihar State Electricity Board, construction of this line was sanctioned by the Board (June 1970) for Rs.72.65 lakhs. The work was awarded in July 1971 and was scheduled to be completed in May 1972. After about one year the contractor expressed his inability to procure material as required in the contract and the Board arranged to supply the material.

The contractor was directed (January 1973) to complete the 132 kv single circuit transmission line from Raigunj to Balurghat by suspending this work. Simultaneously, the Management decided in favour of departmental execution of the work. But it was later on found that departmental execution would be costlier and it was decided to get it done through the contractor. Accordingly, the contractor was asked to resume the work (October 1973). The line was commissioned and energised at 11 kv on 7th August 1974 and subsequently energised at 66 kv (February 1975) as the related 132/33 kv sub-station at Siliguri was under construction (February 1976).

The actual cost for this line booked up to 31st March 1975 was Rs.90.24 lakhs as against the estimate of Rs.72.65 lakhs. The Management explained (October 1975) that the excess expenditure of about Rs.18 lakhs was due to

- (i) increase in the price of materials (Rs.2.37 lakhs),
- (ii) idle labour charges paid to the contractor as extra-contractual compensation, and
- (iii) additional supervision cost due to delay in execution.

**(b) 132 kv Raiganj-Balurghat single circuit line (100 km) and associated sub-station at Balurghat**

The Board approved (September and November 1972) installation of a 132/33 kv sub-station at Balurghat and erection of 132 kv single circuit line from Raiganj to Balurghat under rural electrification scheme at estimated costs of Rs.32.91 lakhs and Rs.62.35 lakhs respectively. Eighty per cent of the total expenditure of these two schemes was to be financed by the Rural Electrification Corporation Limited.

Erection of the line was awarded by the Board (September 1972) to a firm of Madras at 15 per cent over the rates allowed to the same firm (July 1971) for Dalkhola-Siliguri single circuit line on the condition that the work should be completed by 31st July 1973. For expeditious completion of the work the contractor was asked to transfer construction materials from Dalkhola-Siliguri site to Raiganj-Balurghat site though this was not stipulated in the contract. The work was completed on 6th August 1973 but the contractor was paid the extra 15 per cent (Rs.1.06 lakhs) besides Rs.1.07 lakhs towards transportation of materials.

On 3rd October 1973, the line was energised at 33 kv from Raiganj sub-station to Patiram road crossing (96 km). The Director General, Civil Aviation did not allow energisation of the line beyond that point (4 km) on the ground that the obstruction marks as per provisions contained in the "International standard and recommended practices—Aerodromes" were not provided.

For the purpose of erection of 132/33 kv sub-station at Balurghat, seven acres of land was acquired (April 1973) and the work of construction was awarded for completion in three stages. One 5 MVA 66/11 kv transformer was installed at the sub-station (June 1974) and the expenditure on the work up to March 1975 was Rs.2.20 lakhs. Due to restrictions imposed by the Civil Aviation authorities, the transformer was charged at 11 kv by back-feeding process from the existing system of Balurghat (diesel generation). The Management decided (September 1975) to shift the sub-station to another locality.

**8.06. Abandoned Work:** For supply of power in bulk to ten consumers, mainly Tea estates, the Board had taken up construction of lines during 1965-66, estimated to cost Rs.8.21 lakhs. All these works were abandoned (April 1967) before completion, after the Board incurred an expenditure of Rs.4.53 lakhs against Rs.8,760 collected from the parties. Under the rules, Rs.0.82 lakh being 10 per cent of the estimated cost should have been recovered even before commencement of work.

**8.07. Construction wing:** With a view to meeting the anticipated increased load of construction works during the Fourth Plan period, the Board set up three circles, eight divisions and twenty-six sub-divisions during

1972-73. In two sub-divisions no work was done since their formation in December 1972; the expenditure on staff in these two sub-divisions was Rs.2.31 lakhs up to March 1975. The Management stated (February 1976) that the staff numbering 30 were utilised for the work of the respective divisions.

8.08. **Transmission, transformation and distribution loss:** The table below gives the particulars of generation, purchase, sale of energy and loss in transmission and distribution of the Board during the three years ending 1974-75 :

			1972-73	1973-74	1974-75
Installed capacity (MW)	..	..	421.70	519.00	548.30
Firm capacity (MW)	..	..	243.30	339.00	339.00
Maximum demand (MW)	..	..	426	447	441
Power generated (MKwh)	..	..	1,673.22	1,888.00	1,924.10
Power purchased (MKwh)	..	..	745.04	763.00	915.50
Power station auxiliaries (MKwh)	..	..	129.08	142.20	167.00
Sub-station auxiliaries (MKwh)	..	..	1.18	1.20	1.20
Free supply to Bhutan Government (MKwh)	..	..	0.50	0.65	1.20
Power available for sale (MKwh)	..	..	2,289.18	2,508.80	2,672.60
Power sold (MKwh)	..	..	2,080.65	2,275.20	2,425.90
Transmission and distribution loss (MKwh)	..	..	208.85	231.75	244.30
Percentage of transmission and distribution loss to power available for sale	..	..	9.0	9.2	9.1

The line losses amounted to Rs.338 lakhs in 1974-75 at the average rate of revenue realised per unit. The line losses comprise losses in transmission, transformation and distribution of energy. The Board has no data about the loss sustained at each of these stages. The losses have not been analysed to identify the reasons, such as low load factor, pilferage, defective meters, etc. It was reported by the Management (August 1975) that the grid loss in three districts of North Bengal (Darjeeling, Jalpaiguri and Cooch Behar) was more than 28 per cent in 1972-73.

8.09. **Under-utilisation of lines:** The following transmission lines were under-utilised (position as in December 1975) :

Particulars of line	Energised at kv	Cost of the line (In lakhs of Rupees)	Period of under-utilisation	Remarks
<b>220 kv line</b>				
Santaldih-Durgapur (100 km)	132	214.76	Since 1st January 1974.	The 220/132 kv sub-station at Durgapur is not ready.
Santaldih-Bishnupur (110 km)	132	147.69	14th April 1975 to 10th August 1975.	The 220/132 kv sub-station at Howrah was not ready.
Bishnupur-Howrah (140 km)	132	199.22	Ditto	Ditto
<b>132 kv line</b>				
Kolaghat-Haldia (66 km)	33	47.78	Since June 1971	The sub-station at Haldia is not ready to receive power at 132 kv.
Durgapur-Gokarna (100 km)	66	104.23	June 1973 to March 1974	Power was transmitted through Ranaghat 66 kv sub-station until Santaldih generation started.
Gokarna-Farakka (110 km) (taken up in Third Plan)	66	1.61*	Since March 1974	Completed and energised on 25th February 1974. The receiving sub-station at Farakka is not ready.
Raigang-Balurghat (100 km)	33	63.16	30th October 1973 to 15th June 1974	} The Sub-station at Balurghat was not ready (September 1975).
	66		Since 16th June 1974.	
Dalkhola-Siliguri (128 km)	11	90.24	7th August 1974 to 27th February 1975.	} Related 132/33 kv sub-station at Siliguri was under construction (February 1976).
	66	..	Since 28th February 1975.	
Santaldih-Purulia (35 km)	11 } 33 }	36.44	February 1972 to December 1972, January 1973 to March 1973.	Completed and energised in February 1972. Power for construction of Santaldih thermal power station supplied through this line.

\*The cost does not include the value of conductors used as the expenditure has not so far been booked in the accounts (February 1976).



8.10. **System improvement scheme:** Rural Electrification Corporation Limited introduced loan assistance schemes (July 1972) for carrying out system improvement, subject to a maximum of Rs.50 lakhs. The Board submitted to the Rural Electrification Corporation Limited, for the first time in July 1975, a scheme on system improvement covering one district (Nadia), estimated to cost Rs.29.33 lakhs. The scheme envisaged a saving of about 30 per cent of energy loss in the system. The Rural Electrification Corporation Limited sanctioned a loan assistance of Rs.12.38 lakhs in December 1975. It was stated by the Management (June 1975) that similar schemes covering other districts of the State were under preparation.

8.11. **Loss by theft from erected lines:** During the period from 1st April 1970 to 31st March 1975, the Board suffered heavy loss due to theft of materials from erected lines and sub-stations. The table below indicates the extent of loss suffered:

Year					Number of cases	Value (In lakhs of Rupees)
1970-71	..	..	..	..	451	6.43
1971-72	..	..	..	..	541	11.56
1972-73	..	..	..	..	231	4.17
1973-74	..	..	..	..	497	13.36
1974-75	..	..	..	..	1,059	25.74
					<b>Total</b>	<b>61.26</b>

These losses have not been adjusted in the accounts (March 1975). In view of the large incidence of theft from the transmission lines, the Board set up (May 1974) resistance groups consisting of members of the public and Board's employees for safeguarding the Board's properties. Up to March 1975 the Board had spent Rs.0.45 lakh by way of cash awards to resistance groups for providing useful information to prevent pilferage of the Board's property.

8.12. **Hot line staff:** The Board had initially trained a few staff and officers in 1960-61 to work as hot line maintenance staff but there was no record of the work done by them. It was stated by the Management (August 1975) that there was no hot line staff and the repair works in the lines were being done after taking a complete shut-down. The extent of loss suffered by the Board due to interruptions in the supply of power through lines during repair works was not assessed.

8.13. **Line accident:** The Board had about 37,084 Ckm transmission and distribution lines at the end of 1974-75. The number of accidents which occurred in the lines and compensation paid during the five years up to 1974-75 are indicated below :

Year					Number of fatal accidents	Number of non-fatal accidents	Compensation paid (Rupees)
1970-71	..	..	..	..	10	41	57,788
1971-72	..	..	..	..	8	48	71,038
1972-73	..	..	..	..	8	34	43,117
1973-74	..	..	..	..	9	42	65,281
1974-75	..	..	..	..	11	54	40,014

It was observed by the Board (August 1974) that the staff involved in most of the accidents were untrained muster roll employees although sufficient number of trained line staff was available to attend to maintenance work. This was viewed seriously by the Board which directed (August 1974) that a detailed enquiry be made by the Chief Engineer in the matter. Results of the enquiry are yet to be placed before the Board (February 1976).

## 9. Rural electrification

9.01. Expenditure and achievements up to the end of the Fourth Five Year Plan, that is, up to March 1974 in respect of rural electrification schemes were indicated in paragraph 5 of section V of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial). The total number of mouzas\* electrified and pump sets energised as on 31st March 1974 were 8,708 and 6,470 respectively. An expenditure of Rs.691.55 lakhs was incurred on rural electrification schemes in 1974-75 and 762 mouzas were electrified and 1,224 pump sets energised.

9.02. **Electrification of mouzas in the State vis-a-vis all India performance:** Out of 38,454 mouzas in the State, electricity reached 9,470 mouzas as on 31st March 1975, that is, about 24.6 per cent against the all India figure of 29.3 per cent. The position of the State compared with that of the rest of the country is as below :

					West Bengal	All India
Total number of mauzas	..	..	..	..	38,454	5,66,908
Number of mauzas electrified as on 31st March						
1951	..	..	..	..	386	3,525
1956	..	..	..	..	553	9,362
1961	..	..	..	..	920	25,406
1966	..	..	..	..	1,594	45,909
1969	..	..	..	..	2,433	74,466
1974	..	..	..	..	8,708	1,56,663
1975	..	..	..	..	9,470	1,66,208

\*Generally a mauza corresponds to a village; but in some cases more than one village may be included in a mouza.

9.03. **Target and achievement:** Scrutiny of accounts and records in respect of 66 schemes sanctioned by the Rural Electrification Corporation Limited indicated shortfall in actual performance in 28 schemes which have completed two years or more out of the construction phase of five years. The table below shows the load forecast made in the 28 scheme reports and the performance up to 31st March 1975 :

Number of schemes	Number of mouzas to be covered	Number of service connections as per target	Number of mouzas actually covered	Number of service connections actually given	Percentage of achievement in respect of		
					mouzas	service connections	
28	..	4,826	1,73,246	3,370	11,506	69.8	6.6

9.04. An examination of three schemes in Midnapore district revealed that out of 1,276 mouzas shown as completed by the rural electrification wing of the Board, works in respect of 23 mouzas completed in 1973-74 and 45 mouzas completed in 1974-75, involving an expenditure of Rs.31.28 lakhs were not taken over (January 1976) by the operation and maintenance wing as these were not considered to be fit for acceptance due to incomplete work, defective installations, theft, etc.

9.05. In test check it was found (August 1975) that in 173 mouzas there was no consumer at all although the mouzas were electrified 2 to 3 years ago. Taking the average cost of electrification per mouza at Rs.0.46 lakh, the total investment on these 173 mouzas was about Rs.79 lakhs. The Board declares a village as electrified as soon as the village transformer is energised after completion of high tension/low tension lines, irrespective of any service connection issued.

9.06. The pattern of sale of electricity by the Board shows that sale for agricultural purposes formed 1.69 per cent of total sales in 1972-73, 1.32 per cent in 1973-74 and 1.66 per cent in 1974-75 (*vide* paragraph 10.04 at page 75).

While formulating schemes under rural electrification programme, the irrigation diesel pump sets, already in use in the areas, are included in the target for new pump set connections. In this connection the Management explained (August 1974) that the contributory factors for delay in conversion of existing diesel pumps into electrically operated ones in villages where electricity was made available were :

- (i) non-availability of easy financial assistance for conversion of diesel sets,
- (ii) absence of suitable scheme for utilisation of diesel sets after their conversion to power, and
- (iii) uncertainty of power in rural areas.

While no concessional rate is offered to the agricultural consumers of electricity in the rural areas, certain modifications in the standard terms and conditions for energising shallow tube-well pumps have been made (June 1975).

9.07. With a view to reviewing the slow pace of rural electrification in the Eastern States, Government of India constituted (January 1974) a Committee to review the progress achieved and to identify the reasons for slow progress of rural electrification works. The Committee observed (March 1975), *inter alia*, the following:

- (a) less attention is paid to power development in general and rural electrification in particular;
- (b) transmission and distribution net-work so far laid out caters to the industrial loads and urban centres mainly;
- (c) people follow traditional mode of agriculture utilising the monsoon rain. On account of economic backwardness of rural masses supplemental irrigation is not used;
- (d) ground water survey indicates that water is not suitable in some areas for irrigation and for obtaining good water deep tube-well is necessary;
- (e) earlier, no suitable organisation was existing in the West Bengal State Electricity Board for planning and executing large scale programme of rural electrification work; and
- (f) there is lack of co-ordination between the various developmental departments, specially the Agriculture Department.

9.08. The Committee, *inter alia*, recommended (March 1975) that—

- (a) organisation for load promotion and other activities should be created by the Board or by any other Development Department of the State Government,
- (b) rules and procedure for taking connections should be made easier for the rural consumers,
- (c) progress of new connections should not be retarded for want of service connection materials,
- (d) agricultural consumers should be given preferential treatment, as far as possible, in the matter of supply of power and
- (e) the problem of frequent interruption of power supply in rural areas should be examined in detail and remedial action taken on urgent basis.

The recommendations duly accepted by the Government of India were communicated to the State Government in June 1975 for implementation.

9.09. Some points noticed in test check of the execution of rural electrification schemes are given below :

- (i) Three schemes for departmental manufacture of prestressed cement concrete poles for use in rural electrification, transmission and distribution works were taken up (Bandel—November 1971, Malda and Siliguri—March 1973) by the Board and manufacturing units were established at Bandel (November 1971), Malda (March 1973) and Siliguri (March 1973). The capital cost incurred was Rs.12.96 lakhs for Bandel; the cost of the other two units has not been intimated by the Management (February 1976). Target of production at Bandel was fixed at 11,500 poles per year whereas the Malda and Siliguri units were expected to produce 12,000 to 18,000 poles each per year depending on climatic condition and flow of raw materials.

The actual production at Bandel from January 1972 to September 1973 was only 8,547 poles. No cost analysis of the poles manufactured was made. The Bandel unit stopped production from September 1973. The other two units did not go into production at all. The reasons for suspension of production at Bandel have not been stated by the Management; in respect of the other two units it was decided by the Board (March 1974) that the original idea of departmental production at Malda and Siliguri be abandoned as the production of prestressed cement concrete poles was to be entrusted to private entrepreneurs and the premises where such units were established were urgently required by the operation and maintenance wing.

Payment made to the idle staff on account of wages and salaries for Bandel unit from September 1973 and for the other units from the inception worked out to Rs.3.50 lakhs (up to the time of audit, i.e., August 1975 for Bandel, March 1975 for Malda and February 1976 for Siliguri). As there were no proper storing facilities, materials like high tensile wire, cement, etc. valued at Rs.2.33 lakhs in the three units got rusted or glodged rendering them unserviceable.

(ii) Actual expenditure up to March 1975 on three rural electrification works under execution (May 1975—at the time of audit) in the district of Darjeeling exceeded the provision made in the respective sanctioned estimate as indicated below :

Name of the work	Date of work order	Amount technically sanctioned	Expenditure up to March 1975		Percentage of excess expenditure
				Excess expenditure	
(In lakhs of Rupees)					
Electrification of 63 villages and power supply to 34 tea gardens	21st December 1972	41.69	52.17	10.48	25
Electrification of 8 villages	22nd January 1973	4.44	14.07	9.63	217
Electrification of 25 mouzas	9th May 1973	4.75	31.99	27.24	573

The following reasons were indicated by the Superintending Engineer, Himalayan (O & M) Circle (May 1975) for the excess expenditure :

- (a) allowance of rates to contractors higher than the rates prescribed by the Board on the ground that the prescribed rates were not suitable for hill areas,
- (b) quantitative increase in the length of low tension lines found necessary to meet the pressing demand of the locality.

The excess expenditure is yet to be approved by the Board (August 1975).

## 10. Tariff and commercial matters

10.01. As mentioned in paragraph 9 of section V of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial), the Board made two major general revisions of tariff; the first was given effect to from 1st September 1965 and the second from 1st December 1974. In view of the sharp rise in operating expenditure the Board made another general revision of tariff which came into effect from 24th December 1975.

Though the Board directed (1974) that detailed cost data should be made available for future tariff revision, no detailed data on cost of generation, transmission and distribution were prepared for consideration of the Board. The Board, while revising the tariff in December 1975, took into consideration

the "steep increase in the salary and wage bills and other operating expenditure supplemented by certain rise in the cost of import of power due to revision of tariff by Damodar Valley Corporation, Durgapur Projects Limited and Bihar State Electricity Board".

10.02. The following table indicates the revenue of the Board from sale of energy and the overall cost of the units sold during the five years up to 1974-75 :

Year	Sale	Revenue from sale of energy	Revenue per unit sold	Total revenue expenditure	Overall cost per unit sold	Loss per unit sold
	(In MKwh)	(In lakhs of Rupees)	(In Paise)	(In lakhs of Rupees)	(In Paise)	(In Paise)
1970-71 ..	1802	2109	11.70	2136	11.85	0.15
1971-72 ..	1917	2253	11.75	2362	12.32	0.57
1972-73 ..	2081	2553	12.26	2564	12.32	0.06
1973-74 ..	2275	2925	12.85	3136	13.78	0.93
1974-75 ..	2426	3712	15.30	4031	16.61	1.31

*Note :* In calculating total revenue expenditure, cost of purchase of power, generation expenses, operation and maintenance expenses including administration expenses, depreciation and total interest on loan, bond and security deposit have been taken into account. Amounts appropriated for general reserve, intangible assets written down and contribution to Bond Redemption Fund have not been considered.

10.03. **Special tariff:** Prior to September 1965, the Board had fixed special tariffs for large bulk consumers like the Calcutta Electric Supply Corporation Limited, Birla Jute Manufacturing Company Limited (Calcium Carbide Division), Uttarbhag Pumping Station, Dishergarh Power Supply Company Limited (agreement expired in March 1971), the Railways (for traction purpose) and the Farakka Barrage Project, on the basis of agreements entered into with them. The special tariffs for bulk supply were kept unaltered at the time of general revision of tariff in September 1965. These were revised along with the general revision of tariff in December 1974 except in the case of the Calcutta Electric Supply Corporation Limited. The Farakka Barrage Project was brought under standard tariff since December 1974. The rates of special tariffs and standard tariff effective after the general revisions in December 1974 and December 1975 are given in the following table :

Name of the consumer	Special tariff				Standard tariff			
	December 1974		December 1975		December 1974		December 1975	
	Demand charge per KVA per month (Rupees)	Energy charge per Kwh (Paise)	Demand charge per KVA per month (Rupees)	Energy charge per Kwh (Paise)	Demand charge per KVA per month (Rupees)	Energy charge per Kwh (Paise)	Demand charge per KVA per month (Rupees)	Energy charge per Kwh (Paise)
Birla Jute Manufacturing Company Limited (Calcium Carbide Division)	16	3.8	30	8.0	18	7.5	30	12.0
Uttarbhadg Pumping Station .. ..	8	10 up to first 50,000 Kwh and 9 for all in excess of 50,000 Kwh	30	9.5	17 up to first 500 KVA and 16 for all in excess of 500 KVA	10 up to first 50,000 Kwh and 9 for all in excess of 50,000 Kwh	30	12.0
Eastern Railways (traction purpose) ..	19	5.6	30	8.0	18	7.5	30	9.5
South Eastern Railways (traction purpose)	19	3.5	30	8.0	18	7.5	30	9.5

Note : In all the above cases standard fuel surcharge is applicable. This was 6.516 paise per Kwh during 1974-75. The formula for determining the standard fuel surcharge did not undergo any revision in December 1975.



The particulars of special tariffs in respect of the two private consumers are given below:

**(A) The Calcutta Electric Supply Corporation Limited**

The Company was availing of power at 132 kv on commencement of supply in May 1964 at the following rates:

(i) Demand charge	..	..	Rs. 13 per KVA per month,
(ii) Energy charge	..	..	2.5 paise per Kwh and
(iii) Fuel surcharge	..	..	0.0181 paise per Kwh for each 1 per cent variation in weighted average cost of fuel above or below Rs. 5.

As per the terms of the agreement (May 1965), the Board would have had to continue the tariff up to 31st March 1967. But, by mutual agreement, the Board and the Company decided to revise the rate with effect from July 1966 on the understanding that the Board would maintain the revised tariff up to 30th September 1968. The revised tariff from July 1966 was as follows:

(i) Demand charge	..	..	Rs. 14 per KVA per month,
(ii) Energy charge	..	..	3.8 paise per Kwh and
(iii) Fuel surcharge	..	..	0.0181 paise per Kwh for each 1 per cent variation in the weighted average cost of fuel above or below Rs. 5.

The Board proposed (March 1968) to enhance the special tariff by about 5 per cent from the date the Calcutta Electric Supply Corporation Limited proposed to revise the rates to its own consumers but in any case not later than 1st October 1968. At the instance of Government, revision of rates charged by the Calcutta Electric Supply Corporation Limited to its consumers was deferred up to January 1970 and the Board also decided (January 1969) to defer enhancement of its tariff for bulk supply to the Company. The Company was permitted by Government to enhance its rates from 29th June 1970. The Board revised its tariff with effect from 29th June 1970. The revised rates were as under:

(i) Demand charge	..	..	Rs. 15 per KVA per month,
(ii) Energy charge	..	..	4.2 paise per Kwh and
(iii) Fuel surcharge	..	..	0.0181 paise per Kwh for each 1 per cent variation in the weighted average cost of fuel above or below Rs. 5.

Deferment of revision of tariff from 1st October 1968 till 28th June 1970 resulted in loss of revenue of Rs.35.16 lakhs, as worked out by the Board.

The tariff was further revised with effect from 1st April 1975. The special tariff and the standard rate for extra high voltage supply for industrial purpose are given below:

		Special tariff (132 kv supply)	Standard tariff (66/132 kv supply)
		From June 1970	From December 1974
Demand charge .. ..		Rs. 15 per KVA per month and	Rs. 19 per KVA per month and
Energy charge .. ..		4.2 paise per Kwh	6.5 paise per Kwh
		From April 1975	From December 1975
Demand charge .. ..		Rs. 10 per KVA per month and	Rs. 30 per KVA per month and
Energy charge .. ..		5.3 paise per Kwh	8 paise per Kwh

*Note:* In the case of the Calcutta Electric Supply Corporation Limited, the fuel surcharge is 0.0181 paise per Kwh for each 1 per cent variation in the weighted average cost of fuel above or below Rs.5. In case of consumers under standard tariff, standard fuel surcharge is applicable.

The following table indicates the sale of energy to the Calcutta Electric Supply Corporation Limited and revenue earned thereby with reference to total sale and revenue of the Board for the three years up to 1974-75:

Year	Total sale			Revenue of from sale to C.E.S.C.		
	Total sale	Sale to the C.E.S.C.	Percentage of sale to the C.E.S.C. to total sale of the Board	Total revenue of the Board	Revenue from sale to C.E.S.C.	Percentage of revenue earned by sale to the C.E.S.C. to total revenue of the Board
	(In Mkw)			(In lakhs of Rupees)		
1972-73 ..	2081	817	39	2553	702	27
1973-74 ..	2275	1017	45	2025	926	32
1974-75 ..	2426	824	34	3712	923	25

#### (B) Birla Jute Manufacturing Company Limited (Calcium Carbide Division)

An agreement was entered into with the Birla Jute Manufacturing Company Limited in June 1961 for supply of energy at 6.6 kv for a maximum demand of 5 MW. The supply was commenced in July 1961. The overall rates



10.05. **Loss of revenue:** Mention was made in paragraph 3 of section VIII of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial) of some cases of delay in application of appropriate tariff. Cases noticed in test check subsequently are stated below :

According to the standard tariff introduced in September 1965, an industrial consumer at 6/11 kv supply, consuming energy for industrial and domestic purposes, should pay at rate 'F', the overall rate being 18 paise per Kwh. If the consumption for domestic purposes exceeded 10 per cent of the total consumption, rate 'F' (overall rate 28 paise per unit) would apply. In the case of three consumers who were to be charged at rate 'F', bills were raised at rate 'E', resulting in loss of revenue to the extent of Rs.5.18 lakhs as detailed below :

Name of consumer	Period	Amount under-charged (In lakhs of Rupees)
Indo-Japanese Prototype and Production Centre.	November 1965 to September 1974	2.28
Government of India Press	.. September 1965 to September 1974 ..	1.04
New Jalpaiguri Railway station	.. April 1971 to August 1973 ..	1.26
	Total	5.18

10.06. **Non-realisation of electricity charges:** Meter reading for consumption of electricity supplied by the Board to the staff quarters of the Santaldih thermal project was taken by the controlling division first in March 1969; till October 1972 readings were not taken regularly nor were any energy bills prepared. Bills have been prepared since November 1972 but the amounts have not been realised (September 1975—date of audit). Electricity charges due from members of the staff of the project from November 1972 to July 1975 amounted to Rs.1.73 lakhs including electricity duty of Rs.0.17 lakh. The staff of the project have, however, been paid electricity allowance which was introduced in September 1973 in lieu of the facility of free/concessional supply of electricity.

#### 11. Acquisition of private electric supply undertakings

There were thirty-eight undertakings when the Board was formed. The Purulia Electric Supply Corporation Limited, holding the Purulia Electric Licence, was added in November 1965 following the transfer of Purulia district from Bihar to West Bengal. By September 1961, the Board had taken over 13 of the undertakings.

The Estimates Committee observed in their second report (1963-64) that contrary to the Government policy to do away with intermediaries, the Board was not only retaining the licensed intermediaries but also supplying power to them, as a result of which some of the undertakings had stopped generation,

The Committee was of the view that a definite phased programme should be adopted for taking over the non-generating units which charged their customers more than the Board's supply rate. During the period from August 1965 to June 1974, the Board took over twelve undertakings all of which had received power from the Board including two which had their own generating stations. As on 31st May 1975, there were thirteen Companies and one Municipal licensee; out of these, eight had their own generation, four obtained power only from the Board and the remaining two received power from other sources. The Board was, however, restrained by Court orders from taking over four of the existing undertakings (May 1975).

## 12. Material management and inventory control

12.01. Although the Board has been in existence for the last 20 years, no material management manual has been prepared (December 1975).

12.02. **Purchase procedure:** The central purchase organisations, headed by the Deputy Chief Engineer (Stores and Purchase), processes the indents received from the executing units of the Board.

12.03. **Closing stock and consumption of materials:** The following table indicates the inventory holdings as per financial books for the three years up to 1974-75 :

Particulars	1972-73	1973-74	1974-75
	(In lakhs of Rupees)		
Opening stock .. .. .	1258.13	2080.22	2112.72
Receipts during the year .. .. .	3644.84	3689.79	2982.36
Issues during the year .. .. .	2822.75	3657.29	2917.41
Closing stock .. .. .	2080.22	2112.72	2177.67

The stock at the end of the year was equivalent to 9 months' consumption in 1974-75 as against 7 months' in 1973-74 and 9 months' in 1972-73.

The trend of annual consumption of materials during the four years ending 1974-75 is given in the table below :

	1971-72	1972-73	1973-74	1974-75
	(In lakhs of Rupees)			
<b>1. Construction stores</b>				
(a) Closing stock .. .. .	861	1540	1619	1639
(b) Consumption .. .. .	692	2268	2393	2026
(c) Percentage of closing stock to consumption	124	68	56	81
<b>2. Operation and maintenance stores</b>				
(a) Closing stock .. .. .	475	651	600	701
(b) Consumption .. .. .	483	554	764	891
(c) Percentage of closing stock to consumption	98	118	79	79

12.04. The closing stock of construction stores represented 15 months' consumption in 1971-72, 8 months' consumption in 1972-73, 6½ months' consumption in 1973-74 and 9½ months' consumption in 1974-75. The corresponding figures for operation and maintenance stores were 12 months, 14 months, 9½ months, and 9½ months respectively. The Board is yet to fix "Maximum", "Minimum" and "Ordering" levels for inventory control (February 1976).

12.05. **Non-invitation of tenders:** Open tenders are required to be invited for procurement of stores valuing Rs.50,000 and above. It was noticed in test check that in eight cases materials valued at Rs.215.96 lakhs were purchased during the period from 1971-72 to 1974-75 without inviting open tenders; no reasons were on record for non-invitation of tenders.

12.06. **Non-observance of purchase procedure:** The Superintending Engineer in charge of a circle may finalise tender for stores falling under local items up to a limit of Rs.25,000 and also purchase stores borne on the central list up to Rs.2,500 in each case, provided a valid "No stock" certificate is obtained from the central stores depot. In practice this was not always followed, as indicated below:

- (i) The Superintending Engineer, Howrah Rural Electrification and Distribution Circle purchased (December 1973) 1,000 metres (3×95 square millimetres) 11 kv cables for Rs.0.67 lakh without obtaining "No stock" certificate from the central stores where 14 drums (14 km) of such cables had been lying since 1967 besides 3.5 km valuing Rs.2.10 lakhs (purchased in October 1973).
- (ii) The Superintending Engineer, Himalayan (Operation and Maintenance) Circle purchased aluminium conductors of different specifications during 1973-74 without obtaining "No stock" certificate from the central stores. The purchases were made at rates higher than those paid for central purchases, resulting in an extra expenditure of Rs.1.96 lakhs, as detailed below:

Description of conductors	Rate per km of local purchase	Rate per km of central purchase during 1973-74	Difference in rates	Quantity of local purchase	Extra expenditure
	(Rupees)	(Rupees)	(Rupees)	(km)	(In lakhs of Rupees)
<b>All aluminium conductors</b>					
(i) 7/3·10 mm 3 S.W.G.	1,990	1,307·76	682·24	22	0·15
(ii) 7/2·44 mm 6 S.W.G.	1,550	741·48	808·52	158	1·28
(iii) 1·96 mm 8 S.W.G.	1,150	558·53	591·47	89	0·53
			<b>Total</b>	<b>..</b>	<b>1·96</b>

373.807 km of aluminium conductors of 7/3.10 mm 3 S.W. gauge were available (opening stock: 17.335 km and receipt from central and other stores: 356.472 km) at the stores and 101.118 km was issued during 1973-74. Local purchase of 22 km (value: Rs.0.44 lakh) was, therefore, in excess of requirement.

**12.07. Purchases unrelated to requirements:** A few instances of purchase of materials which have remained unused are given below:

- (i) Cables for underground laying costing Rs.32.86 lakhs, purchased in 1966-67 for utilisation in transmission and distribution system, were not utilised (February 1976).
- (ii) A quantity of 729.139 tonnes of 4 mm steel wire, purchased in March 1973 at a cost of Rs.27.37 lakhs for utilisation in departmental manufacture of prestressed cement concrete poles and also for distribution to the contractors for fabrication of such poles, was not utilised (January 1976) [vide also paragraph 9.09 (i) at page 69].
- (iii) Transformers of different ratings (cost: Rs.15.58 lakhs) purchased between 1960-61 and 1970-71 were lying idle (February 1976).
- (iv) Steel materials of different varieties costing Rs.34.03 lakhs were lying unused for more than 3 years (August 1975).
- (v) The Burdwan Rural Electrification Construction Division purchased 3,000 untreated 16 ft. long salwood poles for Rs.0.66 lakh in 1971-72. Out of these, 2,100 poles (cost: Rs.0.46 lakh) could not be utilised (July 1975—date of audit). The Management had stated (March 1973) that these short length wood poles were unfit for utilisation in overhead line construction.
- (vi) 8,000 steel lattice poles costing Rs.25.60 lakhs and 1,600 deviation and deadend poles including erection belts costing Rs.6.72 lakhs were purchased during 1972-73 even though the units for which the materials were purchased did not place any requisition therefor. The poles remained unutilised (February 1976).

**12.08. Rejection of lowest tender:** Tenders were invited in October 1971 for supply of 43 isolators of 132 kv with connector but without insulator. Seven offers ranging from Rs.2.76 lakhs to Rs.3.31 lakhs were received. Order for the entire quantity at Rs.3.31 lakhs was placed with the highest tenderer in April 1972. No reasons were on record for rejecting the lower offers. The Board stated (August 1973) that the offers of all other tenderers, excepting the fifth lowest, were not considered due to their lack of experience in manufacture of the isolators and the offer of the fifth lowest was not considered as validity of their offer had expired. It was, however,

noticed that the lowest tenderer had manufactured and supplied, to the satisfaction of the Board, 33 isolators of 132 kv in 1971-72 against the orders placed in June 1970 and February 1971. Non-acceptance of the lowest offer resulted in an extra expenditure of Rs.0.55 lakh.

**12.09. Advance payment:** The Board makes normally 90 per cent advance payment of the value of materials for bulk purchases against proof of despatch. A few instances of incomplete supply, short supply and non-supply of materials by contractors, after receiving advance payment, are given below :

- (i) Order for supply of 4,000 poles was placed with a firm of Bombay for delivery by July 1972 at the Burdwan Rural Electrification Division. Ninety-nine per cent of the cost of these poles amounting to Rs.12.46 lakhs was paid to the firm between July 1971 and June 1972. During 1972-73, 2,611 complete poles and 1,389 incomplete poles were received. Wanting members in respect of the incomplete poles have not been supplied (February 1976).
- (ii) A firm supplied (during 1970 to 1974) ACSR 'Lark' conductor (14,055 km, cost: Rs.280.61 lakhs) wound on wooden drums with the brand and weight of conductor and gross weight of drum enfaced on each drum. In the course of erection of a line, it was noticed by the Divisional Engineer of Siliguri Construction Division (January 1974) that actual length of conductor in each drum was less than what was recorded thereon. This fact was verified (June 1974) through joint inspection by the representatives of the Board and the firm, in respect of the conductor drums in the central stores depot when it was found that the actual length of conductor in each drum was short of the recorded length by about 5 per cent. It was estimated by the Board that 700 km (at 5 per cent of the total quantity of 14,055 km), valued at Rs.14.03 lakhs, had been short supplied by the firm. The Management withheld (December 1974) payment of Rs.3 lakhs to the supplier; the matter is reported to be under correspondence with the firm (March 1976).
- (iii) An order was placed (August 1972) with a firm of New Delhi for supply of 400 km Panther ACSR conductor. The purchase order stipulated consignment of materials through the Railways and 100 per cent payment against railway receipt. The party despatched (August 1972) 200 km of conductor (value: Rs.13.71 lakhs) by railway wagons to the destination station (Berhampore). A further quantity of 199.85 km (value: Rs.13.69 lakhs) was handed over by the firm in five consignments to a transport contractor for transportation by road to the Berhampore Construction Sub-division and 100 per cent payment obtained by



them between August and December 1972 against road transport challans, though the purchase order did not stipulate delivery by road. None of the five consignments reached the destination and the consignee officer did not take any action till November 1973 when he reported the matter to the Purchase Officer. The Tender Sub-Committee decided (October 1974) that the Board should insist on completion of supply of the balance quantity of ACSR conductor and if no supply was effected by December 1974, the firm might be asked to refund the cost of the material not supplied by them along with interest charges at Board's borrowing rates. The Sub-Committee also suggested that the question of taking disciplinary action against the officer concerned might be taken up with the administrative authority. The firm has not supplied the balance quantity (118.144 km) and no recovery of cost with interest has been made (March 1976). Disciplinary proceedings against the officer concerned have not been initiated (March 1976).

**12.10. Claim for short receipt of steel:** A test audit of stores receipt vouchers for the three years ending 1974-75 *vis-a-vis* railway receipts and challans concerning purchase of steel of different specifications by the central purchase organisation disclosed short receipt of steel to the extent of 169.369 tonnes valued at Rs.5.08 lakhs (approximately), as indicated in the following table:

Year	Quantity as per invoice/ railway receipt	Quantity received	Difference
(In tonnes)			
1972-73 .. .. .	3,568.050	3,541.900	26.150
1973-74 .. .. .	2,671.357	2,627.050	44.307
1974-75 .. .. .	3,617.821	3,518.909	98.912
		Total ..	169.369

No action was taken to ascertain whether the shortage was due to lapse on the part of the supplier or the transport contractor. Claims for shortages were also not preferred (February 1976).

**12.11. Acceptance of materials without proper verification:** (i) The Board placed orders (June 1973) with different suppliers for supply of 1,870 distribution transformers of different ratings at a total cost of Rs.69.20 lakhs.

The purchase orders provided that the transformers should be guaranteed against any manufacturing defect due to faulty design or workmanship and defective materials, for a period of 12 months from the date of commissioning or 18 months from the date of despatch, whichever was earlier, and also that no transformer should be despatched without approved test certificate. The provision for test certificate was subsequently deleted by the Board (July 1973).

Out of the transformers supplied up to July 1973, 850 went out of order immediately after commissioning between October and November 1973 but the Board did not take any steps against the supplier for rectification or replacement. For these transformers the guarantee period has expired in terms of the purchase order. The transformers are lying idle (February 1976).

The Deputy Chief Engineer (Rural Electrification) stated (April 1975) that "the Board should have taken steps before and after placement of bulk orders for distribution transformers with such parties to make such purchases effective; no regular Inspection wing is there in the Board and absence of the same is strongly felt in this particular deal".

The technical wing of the Board stated (April 1975) that penalty of Rs.4.51 lakhs should be recovered from the suppliers. The Chief Engineer (Transmission and Distribution), however, recommended (April 1975) recovery of penalty on a token basis ranging from 2 per cent to 8 per cent totalling Rs.1.40 lakhs from the suppliers' pending bills. The recommendation for reduced penalty was made reportedly on the basis of tests carried out in the factory of the supplier on some transformers meant for supplies to others. No decision has been taken yet (January 1976).

(ii) An order was placed with a firm in Amritsar (April 1973) for supply and delivery at Midnapore of 2,000 prestressed cement concrete poles at Rs.230 per pole. The poles reached the destination in July 1974 and the inspection was carried out in March 1975 when it was detected that out of 1,940 poles supplied, 126 were damaged. It was reported by various site engineers (July 1974) that the quality of the poles supplied was not satisfactory. Full payment, including Rs.0.29 lakh for the damaged poles, was, however, made in August 1975.

As ordered by the Chief Engineer (Transmission and Distribution), a Committee was formed in April 1975 to investigate into the matter and fix responsibility for the loss; further developments are awaited (March 1976).

**12.12. Non-utilisation of wood treatment plant:** A plant for treatment of timber was set up (October 1971) at Chord Road central stores at a cost of Rs. 1.19 lakhs. Another existing wood treatment plant was renovated at a cost of Rs.0.17 lakh (April 1973). Both the plants have remained idle since May 1973 (March 1976).

About 13 tonnes of wood preservative chemical, purchased in October 1971 for rupees one lakh, could not be utilised (March 1976); the condition of the chemical was reported (March 1975) to be deteriorating.

12.13. **Slow-moving, non-moving and surplus stores:** The Finance branch of the central stores organisation conducted a review of idle stores in August 1974 and reported that stores valuing Rs.70.91 lakhs were lying idle for three to seven years with practically no issue. The Finance branch recommended setting up of a special committee to conduct a thorough enquiry into the heavy accumulation of stores and fix responsibility therefor. Further progress in this regard is awaited (March 1976). No review of slow-moving stock in divisional stores has been made (March 1976).

12.14. **Automobile workshop:** Equipment for maintenance and servicing of vehicles, purchased in February 1967 at a cost of Rs.0.80 lakh, was installed in the workshop in May 1970; the equipment has not been utilised since installation. The local Management stated (October 1974) that the Board had to incur an estimated excess expenditure of Rs.8.25 lakhs for servicing the vehicles outside during the five years up to 1974-75.

### 13. Accounting system

13.01. The following defects in accounts are persisting (November 1975) in spite of their having been repeatedly pointed out by Audit:

- (i) No provision was made in the accounts for 1971-72, 1972-73, 1973-74 and 1974-75 for loss of materials, and unserviceable and damaged stores valued at Rs.7.68 lakhs, Rs.9.42 lakhs, Rs.2.52 lakhs and Rs. 3.19 lakhs respectively.
- (ii) Postings in the priced stock ledgers were in arrears (March 1975) in five units out of 35 units test checked and reconciliation of the priced stock ledgers with the stock ledgers was not done till March 1975.
- (iii) No physical inventory was prepared to arrive at the actual closing balances of stores in 30 units out of 35 units test checked till March 1975. In the remaining five units, physical verification of all the items, especially coal and fuel oil, was not conducted during 1974-75.
- (iv) Monthly accounts are not compiled and sent to the head office in time.
- (v) Store transactions are not incorporated in the monthly accounts in most of the cases but accounted for only at the time of closing of annual accounts.

- (vi) Sundry creditors ledgers are not kept up-to-date with reference to store receipt vouchers and outstanding bills.
- (vii) Register of works is either not maintained or not kept up-to-date in many units.
- (viii) There was considerable delay in settlement of inter-divisional transfers. Total amounts outstanding on this account at the end of each of the five years up to 1974-75 were as follows :

Year	Outstanding balance
	(In lakhs of Rupees)
1970-71 .. .. .	221.73
1971-72 .. .. .	690.77
1972-73 .. .. .	1119.45
1973-74 .. .. .	1437.82
1974-75 .. .. .	2153.36

In the absence of adequate details in respect of these balances it has not been possible to verify that these represent tangible assets. Materials valued at Rs.158.32 lakhs reported to have been sent during 1967-68 to 1973-74 from Chord Road and Majerhat central stores to different units remained unacknowledged (February 1976).

- (ix) Deposit and Advance ledgers were not completed in all respects in most of the units.
- (x) With the bifurcation/reorganisation of divisions, balances under sundry debtors, stores, etc. have not been transferred (February 1976) from the original divisions (Siliguri, Midnapore, Howrah) to the new ones (Cooch Behar and Jalpaiguri, Bankura and Purulia, Hooghly).
- (xi) The books of original entries such as bill registers, demand lists and consumer ledgers and other subsidiary accounts such as debtors ledgers, creditors ledgers, registers of works, assets registers, etc. are either incomplete or are not maintained.

13.02. **Sundry debtors:** Mention was made in paragraph 11.01 of section V of the Report of the Comptroller and Auditor General of India for 1973-74 (Commercial) of the position of sundry debtors up to 1973-74. The closing balance of sundry debtors increased from Rs.635.09 lakhs at the end of 1973-74 to Rs.811.24 lakhs at the end of 1974-75.

The following table indicates the position of sundry debtors during the five years ending 1974-75:

	1970-71	1971-72	1972-73	1973-74	1974-75
	(In lakhs of Rupees)				
Opening balance .. ..	517.67	498.13	594.30	570.38	635.00
Demand raised during the year ..	1785.44	2455.80	2587.50	2962.49	4006.06
Total realisable dues ..	2303.11	2953.99	3181.80	3532.87	4641.15
Collection during the year ..	1804.98	2359.09	2611.42	2807.78	3829.91
Outstanding dues at the end of the year	498.13	594.30	570.38	635.09	811.24
Total sale of electricity ..	2109.36	2253.21	2553.05	2925.02	3712.15
Number of months' sales represented by the outstanding balance at the end of the year	2½	3½	2½	2½	2½

#### 14. Manpower analysis

14.01. The growth of staff of the Board from 1972-73 to 1974-75 is indicated in the table below:

	1972-73	1973-74	1974-75
Number of employees (including <i>ad hoc</i> staff) ..	13,349	25,748	28,711
Number of consumers (in thousand) .. ..	239	279	314
Revenue from sale of electricity (In lakhs of Rupees)	2553	2925	3712
Number of consumers per employee .. ..	18	11	11
Revenue per employee (in thousand of Rupees) ..	19	11	13
Units generated (MKwh) .. ..	1,673	1,888	1,924
Units generated per employee (in thousand Kwh) ..	125	73	67
Units sold (MKwh) .. ..	2,081	2,275	2,426
Units sold per employee (in thousand Kwh) ..	156	88	84

14.02. The percentage of expenditure on salaries and wages to gross revenue during the years 1971-72 to 1974-75 is given in the table below:

Year	Gross revenue	Salaries and wages	Percentage of salaries and wages to gross revenue
	(In lakhs of Rupees)		
1971-72 .. ..	2327	449.67	19.32
1972-73 .. ..	2625	531.19	20.24
1973-74 .. ..	2985	719.49	24.10
1974-75 .. ..	3822	1082.52	28.32

According to the Management (1974), increased expenses on dearness allowance, *ad interim* relief, revision in the scales of pay and recruitment of *ad hoc* personnel contributed to the rising trend in salaries and wages.

#### **15. Contributory Provident Fund Scheme**

15.01. The West Bengal State Electricity Board Employees' Provident Fund Regulation 1965 was adopted by the Board at its meeting held on 28th September 1965. A Board of Trustees with six members was constituted in May 1972. A Trust Deed was also executed in September 1972, which provided that all sums already contributed or to be contributed by the Board and already subscribed or to be subscribed by the members should vest in the Board of Trustees forthwith. In the absence of adequate staff, the Board continued to operate the funds till April 1974 when the control and management of cash were transferred to the Board of Trustees.

15.02. The cumulative dues of the Board towards its contribution to the Fund stood at Rs.20.39 lakhs at the end of 1974-75. The Board had provided for Rs.12.61 lakhs only in the accounts for 1974-75.

#### **16. Outstanding inspection reports**

As on 30th September 1975, 458 inspection reports containing 1,360 paragraphs issued up to 31st March 1975 remained outstanding.

## SECTION VI

## CALCUTTA STATE TRANSPORT CORPORATION

**1. Introduction**

1.01. The Calcutta State Transport Corporation was established on 15th June 1960 under Section 3 of the Road Transport Corporations Act, 1950. The assets and liabilities of the erstwhile Rajya Transport of net value of Rs.570 lakhs were transferred to the Corporation on the date of its formation.

1.02. Some aspects of the working of the Corporation were mentioned in the Audit Report 1966 and in the Report of the Comptroller and Auditor General of India for the year 1972-73 (Commercial).

1.03. The Corporation has six depots located at Lake, Belghoria, Howrah, Paikpara, Taratala and Manicktala. There is a Central Workshop at Belghoria for body building, tyre retreading and major overhauling of vehicles, engines and parts. There is also a civil engineering unit to undertake construction and repair of the Corporation buildings, sheds, passenger shelters, etc.

**2. Organisation**

The Board of the Corporation consisted of seven members as on 31st March 1975 including the Chairman and the General Manager, who were full time officials, two Government officials in ex-officio capacity and three non-official members.

**3. Nationalisation**

The State transport services in Calcutta were started by Government on 31st July 1948 as a departmental undertaking. It was then intended to supplement the transport services run by the private operators. Government decided in 1954 to nationalise the city routes. By 1962-63 all but three routes were nationalised and entrusted to the Calcutta State Transport Corporation which, in the meantime, had come into existence (from 15th June 1960). Between 1964 and 1967, the Corporation had virtual monopoly of all the city routes. However, between 1967 and 1970 due to deterioration in the service provided by the Corporation the State Government decided to de-nationalise some routes in the city.

In August 1975, the number of private buses in the city was 643 (single deckers) as against 556 buses (320 double deckers and 236 single deckers) of the Calcutta State Transport Corporation on the road.

#### 4. Capital structure

4.01. **Sources:** The capital of the Corporation comprises capital contributions and borrowings from the following sources:

- (a) Value of the assets of the Rajya Transport transferred to the Corporation on its formation, treated as capital contribution of the State Government;
- (b) capital contributions of the Central and State Governments under Section 23 of the Act; and
- (c) amounts borrowed under Section 26 of the Act.

The Corporation has also been availing itself of temporary accommodation from a commercial bank and rediscounting facilities from the Industrial Development Bank of India.



4.02. **Funds raised:** The details regarding the funds raised by the Corporation from various sources since inception to the end of 1974-75 are given in the table below:

Serial number	Source and nature of funds raised	Period during which raised	Amount raised up to 1974-75 (In lakhs Rupees)	Terms of repayment	Rate of interest per annum (per cent)	Amount repaid (In lakhs of Rupees)	Balance outstanding as on 31st March 1975 (In lakhs of Rupees)	Remarks	
1	2	3	4	5	6	7	8	9	
<b>1. Capital</b>									
	State Government	.. Since inception to the end of March 1964	82.74 525.72	Not finalised	4 6	..	608.46	} Net value of the assets and liabilities (Rs. 570 lakhs) of the Rajya Transport was transferred by the State Government to the Corporation on its formation and treated as capital contribution.	
	Government of India	.. 1974-75	100.00	....	Not finalised	..	100.00		
<b>2. Loan</b>									
	State Government	.. Since inception to the end of March 1975	2563.40	Not finalised	Do	..	2563.40	....	
	Government of India (Ministry of Rehabilitation)	.. Since inception to the end of March 1962	42.25	10 equated instalments	4	25.98	16.27	The loan was received through the State Government which repaid it to Government of India. The Corporation has to pay to the State Government Rs. 16.27 lakhs in respect of instalments due since 1968-69. Non-repayment was due to paucity of funds, as stated by the Management.	

Serial number	Source and nature of funds raised	Period during which raised	Amount raised up to 1974-75 (In lakhs of Rupees)	Terms of repayment	Rate of interest per annum (per cent)	Amount repaid (In lakhs of Rupees)	Balance outstanding as on 31st March 1975 (In lakhs of Rupees)	Remarks
1	2	3	4	5	6	7	8	9
1.	Government of India (out of additional levy on petrol)	1974-75	300.00	15 years in equal instalments from first anniversary of the drawal of loan	13	..	300.00	....
2.	Calcutta Metropolitan Development Authority	1970-71 to 1974-75	533.27	10 equal instalments commencing from fourth anniversary of drawal of loan	6½	..	533.27	In case of default in the repayment of loan and/or repayment of interest thereon, interest at penal rate of 7½ per cent per annum would be chargeable on all overdue instalments. Rupees 5 lakhs, being the first instalment of loan drawn in January 1971, which fell due in 1974-75, was not paid.
3.	Borrowings from the Industrial Development Bank of India	1969-70 to 1974-75	588.34	Rs. 457.21 lakhs within 5 years Rs. 111.13 lakhs within 7 years	6.95 to 13.04	225.79	342.55	Repayment of principal and payment of interest guaranteed by the State Government without levying any guarantee commission
4.	Market loan by issue of bonds	1972-73 ..	110.00	Redeemable in 1984	6 (payable half yearly)	..	110.00	Guaranteed by the State Government

Section 23 of the Road Transport Corporations Act provided that the capital of the Corporation would be provided by the Central Government and the State Government in agreed proportions. Till 31st March 1975, the proportions were not finalised.

4.03. **Cash credit:** The Corporation has been availing itself of cash credit facility with a nationalised bank since December 1973 against a guarantee given by Government to the extent of Rs.42 lakhs.

The overdraft balance as at different dates is indicated below:

As at	Overdraft balance (In lakhs of Rupees)
31st March 1974	71.96
31st March 1975	78.73
31st October 1975	136.00

Interest on overdraft amounted to Rs.1.11 lakhs and Rs.9.56 lakhs during 1973-74 and 1974-75 respectively.

#### 5. **Fourth Five-Year Plan programme**

During the Fourth Five-Year Plan period, the Corporation received from the State Government Rs.91.70 lakhs for acquisition of new buses and renovation of old buses. The Corporation also raised finances during this period from the Industrial Development Bank of India, the Calcutta Metropolitan Development Authority and by a market loan for meeting the full cost of the planned programme.

The table below indicates the target and achievement during the Fourth Plan period by the Corporation :

Programme	Estimated cost	Source of funds received				Physical achievements
		State Government	Industrial Development Bank of India	Calcutta Metropolitan Development Authority	Market loan	
1	2	3	4	5	6	7
(In lakhs of Rupees)						
<b>I. Acquisition of new buses :</b>						
Acquisition of new buses complete with bodies, 409 D.D. and 443 S.D.	1360.75	46.70	788.20	425.85	100.00	235 D.D., 347 S.D. and 5 semi-articulated D.D. buses complete with bodies acquired
<b>II. Renovation of old buses, etc. :</b>						
Renovation of 50 S.D., 60 D.D., conversion of 75 S.D. into D.D., acquisition of spares for 217 S.D. and spare engines for 2 D.D.	142.59	45.00	..	97.59	..	Renovation of 50 S.D., and 60 D.D. and conversion of 104 S.D. into D.D. were done. Imported spares for 217 S.D. and spare engines for 2 D.D. acquired
<b>III. Civil constructions :</b>						
Construction of 2 new depots, one sub-depots, ancillary civil works and passenger shelter sheds, etc.	115.44	..	..	108.44	7.00	Construction of one new depot, one sub-depot, part construction of one new depot and other ancillary works done

IV. Acquisition of plant, machinery,  
other vehicles, etc. :

Plant and machinery for the new depots, sub-depot and central workshop, printing machine and miscellaneous vans.	51.75	..	48.75	3.00	Most of the plant and machinery for new depot, sub-depot and central workshop, vans, etc. were acquired. Rotary prin- ting machine acquired and commissioned.
Total ..	1670.53	91.70	680.63	110.00	
Total expenditure incurred during the the Fourth Plan period	1230.89	91.70	510.52	108.71	

Note : D.D. stands for double deck and S.D. for single deck buses.

## 6. Fleet acquisition and replacement

6.01. The Corporation operates passenger transport services only. There are two divisions of the services, namely, (i) city services in the metropolitan area of the city of Calcutta (fleet strength: 1,410 buses on 31st March 1975), and (ii) long distance services including inter-State service (26 buses on 31st March 1975). The Corporation operates three types of services, viz. ordinary, limited stop and *de luxe* services. The 12 long distance routes on 31st March 1975 are indicated in Annexure 'E'.

6.02. **Fleet acquisition:** The Corporation which started with 670 vehicles on 15th June 1960 had a fleet strength of 1,436 on 31st March 1975.

The table below indicates the details of the fleet held by the Corporation during the five years ending 1974-75:

Type of fleet	As at the end of				
	1970-71	1971-72	1972-73	1973-74	1974-75
<b>Double deck buses :</b>					
Leyland Titan and Cometised Titan	390	428	482	563	609
Leyland Tiger P. S. 2 ..	....	13	63	104	121
A. E. C. MK-V ..	....	....	....	....	3
Semi-articulated trailer	1	1	1	6	22
<b>Single deck buses :</b>					
Leyland Royal Tiger ..	7	....	....	....	....
Leyland Tiger P. S. 1 ..	6	....	....	....	....
Leyland Tiger P. S. 2 ..	179	166	116	72	55
Leyland Tiger L. P. D. ..	1	1	1	1	1
Leyland Royal Tiger (Cub)	49	49	49	44	44
Leyland Comet 90 ..	20	4	4	4	4
Leyland Comet ALCOP	335	419	556	528	539
Leyland Comet Viking ..	....	1	1	1	1
A. E. C. MK-III ..	31	....	....	....	....
A. E. C. MK-V ..	40	40	40	40	37
<b>Total ..</b>	<b>1,059</b>	<b>1,122</b>	<b>1,313</b>	<b>1,363</b>	<b>1,436</b>

6.03. A "Crash Programme" was taken up by the Corporation at the end of 1970 to acquire 200 new single deck buses during the years 1970-71 and 1971-72. Accordingly, 73 new single deck buses and 17 double deck buses were acquired and added to the fleet during 1970-71. As the "Crash Programme" was found inadequate, it was replaced in November 1971 by a massive programme called the "Accelerated Renewal Programme" covering the period from 1971-72 (November 1971) to 1973-74. According to the programme, 395 double deck and 226 single deck buses were required to be acquired during the period. The Corporation actually acquired 217 double deck and 230 single deck buses. The object of the programme was to acquire double deck and single deck buses so as to achieve a ratio of 2:1. The shortfall in acquisition of vehicles was attributed by the Management (November 1973) to non-availability of chassis from the manufacturers and paucity of funds.

6.04. The working group on Metropolitan Transport Services set up by the Planning Commission (March 1970) had recommended in September 1970 that the city transport undertakings should introduce large capacity buses, preferably double deckers, in order to meet the peak hour demand.

6.05. The Estimates Committee in their sixteenth report recommended (March 1974) that there should be every attempt to reach the target of double deckers and single deckers ratio at 2:1 and that the single deck buses should ply only on such routes where it was not possible to operate double deckers because of road condition. According to the Committee, the revenue earnings from a double decker are generally higher by at least 50 per cent than from a single decker though the operative cost of a double decker is only marginally higher than the cost of operating a single decker.

6.06. The table below indicates the ratio of double and single deck buses during the five years up to 1974-75:

Year	Total number of fleet as at the end of year	Double deckers including semi-articulated trailer	Single deckers	Ratio
1970-71	1,059	391	668	2 : 3.4
1971-72	1,122	442	680	2 : 3.1
1972-73	1,313	546	767	2 : 2.8
1973-74	1,363	673	690	2 : 2.1
1974-75	1,436	755	681	2 : 1.8

6.07. **Replacement:** In April 1972, the Corporation decided to permit, subject to certain conditions, scrapping of vehicles according to the following norms :

Double deck buses 7.5 lakh kilometres or 12 years of operation, whichever is earlier.

Single deck buses 5 lakh kilometres or 8 years of operation, whichever is earlier.

The Management stated (December 1972) that due to failure to generate internal resources no provision could be made over the years for regular replacement of old buses. In the statement of accounts for 1972-73 the Management stated further (November 1973) that the Corporation could not carry out the replacement programme as above as it did not have a well-defined policy of regular replacement of its buses.

6.08. The following table indicates the composition of vehicles in terms of years and kilometers operated as at the end of March 1974; position as at the end of March 1975 was not available with the Management, (January 1976):

			Total number of buses	Double deckers	Single deckers
<b>(a) In terms of years of operation</b>					
(i) Over 12 years	..	..	461	304	157
(ii) Above 8 years but not exceeding 12 years	..	..	247	84	163
(iii) Above 5 years but not exceeding 8 years	..	..	64	41	23
(iv) 5 years and less	..	..	581	244	347
		<b>Total</b>	<b>1,363</b>	<b>673</b>	<b>690</b>
<b>(b) In terms of kilometres run</b>					
(i) Over 7.5 lakh kilometres	..	..	427	304	123
(ii) Over 5 lakh kilometres but not exceeding 7.5 lakh kilometres	..	..	282	83	199
(iii) 5 lakh kilometres and less	..	..	654	286	368
		<b>Total</b>	<b>1,363</b>	<b>673</b>	<b>690</b>



The average age of the fleet was more than eight years (average age of double deck buses: 9.7 years and that of single deck buses: 7.4 years).

In the statement of accounts for 1972-73 the Management stated (November 1973) "presence of a large number of age-old buses in the fleet had a dual effect: (a) the cost of operation increased further due to increased consumption of fuel, spare parts and stores, and (b) because of the increasing incidence of break-downs on the road, both the outshedding and effectiveness of buses were reduced, leading to a considerable loss of revenue".

6.09. Due to non-replacement of the worn out vehicles in accordance with the prescribed norms, the Corporation had to operate fully depreciated vehicles after renovation. The table below indicates the total number of vehicles held in the fleet, number of fully depreciated vehicles and vehicles beyond economic repairs for the three years ending 1974-75:

	As at the end of		
	1972-73	1973-74	1974-75
(a) Total number of vehicles . . . . .	1,313	1,363	1,436
(b) Fully depreciated vehicles . . . . .	426	443	516
(c) Vehicles beyond economic repairs included in (b)	400*	400*	453*

\* These are not put on the road.

6.10. The Estimates Committee in their sixteenth report observed (March 1974) that a large number of vehicles remained either to be condemned or were awaiting disposal after condemnation. The Committee pointed out that there was no efficient machinery for examining the conditions of vehicles for condemnation and disposal and recommended establishment of a Condemnation Board consisting of not less than 3 persons having experience in automobile engineering to examine the vehicles. This recommendation has not been given effect to (March 1976).

6.11. While many vehicles beyond economic repair are awaiting condemnation and disposal, 158 vehicles of Leyland ALCOP 1/1 type were withdrawn from service before completion of the stipulated 8 years' life or 5 lakh kilometres. These buses were stated to have been withdrawn prior to 1964-65. The Commission of Enquiry set up by Government in April 1974 to enquire into the disposal of certain buses by this Corporation (and also by North Bengal State Transport Corporation) had felt that faults which developed in the brake system of these buses were not such as to warrant withdrawal from the routes or disposal on a wholesale basis even before their expected life was over.

6.12. The Estimates Committee in their sixteenth report observed (March 1974) that two buses which were only eight years old and were in good condition were disposed of by the Corporation for Rs.12,500 and

Rs.12,100 respectively "with undue haste" though there were many buses older than these two awaiting condemnation and disposal. The Chairman of the Corporation informed the Committee that the two buses were disposed of by way of experiment in order to test the price they could yield in the market. But the Committee were not convinced and suggested a thorough enquiry into the matter. The results of enquiry were not available (January 1976).

## 7. Profitability analysis

7.01. **Financial position:** The financial position and working results of the Corporation for the four years ending 1973-74 are given below :

	1970-71	1971-72	1972-73	1973-74*
	(In lakhs of Rupees)			
<b>A. Liabilities</b>				
(a) Capital contributions from the State Government	608.46	608.46	608.46	608.46
(b) Reserves and surpluses including Depreciation Reserve Fund, etc.	1306.86	1440.54	1630.69	1860.87
(c) Deposits .. .. .	11.34	12.17	13.98	15.47
(d) Loans .. .. .	1170.30	1717.44	2264.89	2654.77
(e) Trade dues and current liabilities	710.59	953.37	1262.01	1717.45
Total ..	3807.55	4731.98	5780.03	6857.02
<b>B. Assets</b>				
(a) Fixed assets .. ..	1230.07	1405.04	1729.81	2103.15
(b) Investments .. ..	415.36	471.58	475.93	484.82
(c) Deposits with banks ..	85.35	90.82	16.84	..
(d) Current assets, loans and advances	406.77	521.43	705.83	679.60
(e) Miscellaneous expenses ..	0.12	0.83	0.85	1.01
(f) Accumulated losses .. ..	1669.88	2241.38	2850.77	3588.44
Total ..	3807.55	4731.98	5780.03	6857.02

\*The accounts for the year 1974-75 are under compilation (February 1976).

7.02. **Financial analysis:** An analysis of the accounts of the Corporation for the years 1970-71 to 1973-74 is given below :

	1970-71	1971-72	1972-73	1973-74
	(In lakhs of Rupees)			
1. Capital invested .. ..	1778.76	2325.90	2873.35	3263.23
2. Capital employed .. ..	58.00	110.30	114.96	(-)156.29
3. Gross revenue .. ..	426.31	409.99	541.98	503.75
4. Total expenses .. ..	831.30	981.49	1151.37	1241.42
5. Net profit (+)/Loss(-) (item 3-4)	(-)404.99	(-)571.50	(-)609.39	(-)737.67
6. Interest on capital and long term loans (included in item 4)	96.51	126.23	168.89	208.81
7. Total return on capital invested (item 5+6)	(-)308.48	(-)445.27	(-)440.50	(-)528.86
8. Return on capital invested (percen- tage of item 7 to item 1)	Nil	Nil	Nil	Nil
9. Return on capital employed (percen- tage of item 8 to item 2)	Nil	Nil	Nil	Nil

*Notes:* 1. Capital invested represents capital contributed by Governments *plus* long-term loans *plus* free reserves at the end of the year.

2. Capital employed represents net fixed assets (excluding capital works-in-progress) *plus* or *minus* working capital.

3. Total return on capital invested represents loss less interest on capital and long-term loan.

The Corporation has been incurring cash losses every year from 1970-71, as the revenues are not sufficient to cover working expenses (excluding depreciation) as shown in the following table :

Year	Operating expenses excluding depreciation	Revenue	Cash loss
	(In lakhs of Rupees)		
1970-71 .. ..	666.65	426.31	240.34
1971-72 .. ..	776.13	409.99	366.14
1972-73 .. ..	874.32	541.98	332.34
1973-74 .. ..	908.83	503.75	405.08

7.03. **Working results:** The following table gives the working results of the Corporation for the four years ending 1973-74:

	1970-71	1971-72	1972-73	1973-74
	(In lakhs of Rupees excepting items i to l)			
(a) Operating revenue .. ..	416.43	391.54	527.11	487.40
(b) Non-operating revenue .. ..	9.88	18.45	14.87	16.35
(c) Total revenue .. ..	426.31	409.99	541.98	503.75
(d) Operating expenses .. ..	739.16	859.65	986.92	1037.15
(e) Non-operating expenses .. ..	92.14	121.84	164.45	204.27
(f) Total expenses .. ..	831.30	981.49	1151.37	1241.42
(g) Operating profit (+)/loss(-) (a—d)	(-)322.73	(-)468.11	(-)459.81	(-)549.75
(h) Net profit (+)/loss (-) (c—f) ..	(-)404.99	(-)571.50	(-)609.39	(-)737.67
(i) Percentage of operating expenses to operating revenue.	177	219	187	213
(j) Total operating expenses per effective km (Paise)	305.44	377.04	312.32	365.19
(k) Total operating revenue per effective km (Paise)	172.42	171.76	166.81	171.62
(l) Loss per effective kilometre (Paise)	133.02	205.28	145.51	193.57

A review of the working results of the Corporation since its formation to the end of 1973-74 revealed that the Corporation earned profits totalling Rs.26.50 lakhs during the years 1960-61 and 1961-62. From 1962-63 onwards, it suffered losses and by the end of 1973-74, the total loss amounted to Rs.3588.44 lakhs.

Reasons for the losses during these years reported by the Management (in different administration reports and statements of accounts) were as follows:

- (i) Aging of large number of vehicles in the fleet causing increase in the operating cost;
- (ii) increase in the cost of fuel, spares, stores, etc.;
- (iii) increase in salaries and allowances of staff;
- (iv) operation of lesser number of buses;
- (v) deterioration of roads due to heavy rains during rainy seasons;
- (vi) uneconomic fare structure;
- (vii) rise in the rate of interest of loans;
- (viii) frequent diversions of route services due to disturbed conditions, resulting in non-availability of commuters in various sectors in 1970-71;

- (ix) withdrawal of buses from routes due to call of frequent bundhs and promulgation of curfew, etc. in 1970-71; and
- (x) heavy cancellation of services, damages caused to vehicles (100 vehicles) and burning of vehicles (15 vehicles) during civil disturbances in the city during 1970-71.

While assessing the financial and physical performance of the Corporation the Estimates Committee in their sixteenth report observed (March 1974) that the loss entailed two factors, namely, (i) inefficient functioning of the organisation in its diverse internal aspects leading to mounting cost of operation and (ii) fall in revenue on account of uneconomic and non-commercial fare structure.

7.04. The Corporation does not maintain route-wise profit and loss account in respect of long distance services. However, an income and expenditure account was prepared by the Corporation for 1972-73 which showed that out of 9 long distance routes, five were uneconomic. The table below indicates the route-wise analysis of the long distance services during the year 1972-73:

Route	Total revenue	Total expenditure	Surplus(+) Deficit(-)	Average income per kilometre	Average cost of operation per kilometre
	(In lakhs of Rupees)			(In Paise)	(In Paise)
1. Calcutta-Keonjhar ..	2.38	2.85	(-)0.47	92	110
2. Calcutta-Digha ..	2.77	2.04	(+)0.73	150	110
3. Calcutta-Berhampore	0.91	1.67	(-)0.76	62	114
4. Calcutta-Midnapore ..	0.67	0.66	(+)0.01	129	126
5. Calcutta-Haldia ..	1.23	0.95	(+)0.28	211	162
6. Calcutta-Suri ..	0.60	1.09	(-)0.49	72	130
7. Calcutta-Burdwan ..	0.19	0.63	(-)0.44	34	114
8. Calcutta-Krishnanagar	0.24	0.80	(-)0.56	27	92
9. Calcutta-Namkhana*	0.34	0.28	(+)0.06	191	156
	9.33	10.97	(-)1.64		

\*Discontinued from January 1973.

The total operating expenses of the nine long distance services (excluding fixed costs like depreciation, interest on capital, etc.) during 1972-73 amounted to Rs.10.97 lakhs as against the traffic revenue of Rs.9.33 lakhs.

## 8. Passenger traffic and fare structure

According to the information supplied by the Management, in the year of inception 1960-61, the Corporation's buses (567 buses put on road) carried 4,235 lakh passengers, while in 1973-74 the number of passengers carried was 3,082.8 lakhs (533 buses put on road).

8.01. The fare structure for city services prescribed by the Corporation from time to time was as follows :

Fare rate (In Paise)	1st February 1965 to 30th November 1973	1st December 1973 to 1st January 1974	2nd January 1974 to 31st July 1975	From 1st August 1975
10	.. Up to 3.5 km ..	....	Up to 2 km ..	....
5	.. Above 3.5 km up to 6.9 km	Up to 3.5 km ..	Above 2 km up to 3.5 km	....
20	.. Above 6.9 km up to 10.9 km	Above 3.5 km up to 6.9 km	Above 3.5 km up to 6.9 km	Up to 6.9 km
25	.. Above 10.9 km up to 13.9 km	Above 6.9 km up to 10.9 km	Above 6.9 km up to 10.9 km	Above 6.9 km up to 10.9 km
30	.. Above 13.9 km up to 17.6 km	Above 10.9 km up to 13.9 km	Above 10.9 km up to 13.9 km	Above 10.9 km up to 13.9 km
35	.. Above 17.6 km up to 19.6 km	Above 13.9 km up to 17.6 km	Above 13.9 km up to 17.6 km	Above 13.9 km up to 17.6 km
40	.. ....	Above 17.6 km up to 19.6 km	Above 17.6 km up to 19.6 km	Above 17.6 km up to 19.6 km

Note : An extra 5 paise is charged in limited stop service buses introduced in March 1972.

The Corporation has not worked out the detailed cost of operation to serve as a guide for fare fixation. The growing cost of operation due to higher cost of chassis, body building and spare parts and increase in wages and motor vehicle taxes were the reasons generally given for the revision of fare from time to time.

The Corporation has not made any analysis of the additional revenue received due to revision in fare structure and increased operation.

8.02. **Issue of concessional tickets:** The Corporation extends the facility of concessional fares to certain classes of travellers like students, police personnel, etc.

8.03. **Student concession scheme:** The scheme was introduced in November 1971 at the instance of Government to allow concession to the extent of 50 per cent of the normal fare to students for performing journeys

to educational institutions, subject to certain terms and conditions. The table below indicates the number of coupons issued and concession offered on this account during the three years ending 1974-75 :

Year					Coupon issued	Face value of coupons	Concession offered
					(In lakhs)	(In lakhs of Rupees)	
1972-78	..	..	..	..	1.34	8.82	4.41
1973-74	..	..	..	..	2.92	19.34	9.67
1974-75	..	..	..	..	4.30	28.10	14.05

The Management has not stated whether any claim for subsidy on this account was lodged with Government.

There is no system to prevent re-use of the redeemed coupons.

8.04. **Issue of passes to police personnel at concessional rates:** A scheme to issue passes at concessional rates to the police personnel travelling by the Corporation's buses was introduced in May 1968. Government had accepted (March 1968) in principle to compensate the Corporation for the facility extended to the police personnel. The fee payable to the Corporation was fixed at Rs.8 per pass per month. The rate did not undergo any revision until February 1975 when it was decided to increase it to Rs.15 per pass per month with effect from 1st April 1975. The table below indicates the number of bus passes issued to the police personnel up to the period ending 31st December 1974:

Period			Number of passes issued	Number of passes surrendered/lost/damaged
Up to December 1970	..	..	19,365	..
During 1971	..	..	17,356	68
During 1972	..	..	22	252
During 1973	..	..	33	207
During 1974	..	..	6	103

There is no system of periodical verification of passes issued by the Corporation with those actually in use according to the records of the Police Department.

8.05. The following table indicates the particulars of dues outstanding as on 31st August 1975 in respect of passes issued to the police personnel :

Particulars	Amount due	Amount realised	Amount outstanding
1. Commissioner of Police, Calcutta .. ..	116.56	100.92	15.64
2. Inspector-General of Police, West Bengal ..	14.46	12.96	1.50
3. Vigilance Commissioner .. ..	0.48	Nil	0.48
<b>Total ..</b>	<b>131.50</b>	<b>113.88</b>	<b>17.62</b>

Payments made to the Corporation by Government on this account were provisional.

8.06. **Ticketless travel:** According to the Management (July 1974), leakage of revenue was a major factor causing loss to the Corporation. The Corporation has a number of ticket examiners, route inspectors, zonal inspectors, etc. for checking of tickets in the buses.

To intensify checking, the Corporation issued an order (July 1974) enumerating the duties of the checking squads in detail. Three special squads were formed in July 1974 and one cell improvement squad was formed in August 1975.

8.07. No norms were prescribed for constituting surprise squads *vis-a-vis* kilometres operated. The strength of all the checking squads in September 1975 was as under :

	Squad number I	Squad number II	Squad number III	Flying squad	Total
Ticket examiner ..	66	62	62	52	242
Route Inspector ..	2	2	2	..	6
Zonal Inspector ..	..	..	..	4	4
Traffic Inspector ..	..	..	..	1	1
Starter .. ..	..	..	..	4	4
Superintendent of Operation ..	..	..	..	1	1



8.08. The following table indicates the total number of checks exercised, number of cases reported, etc. during 1973-74 and 1974-75 :

Year	Average number of buses on road per day	Number of buses checked per day	Total number of way bills checked	Total number of cases reported	Cases of non-issue of tickets against fare tendered	Cases of non-collection of fare	Others (including cash shortage, etc.)
1973-74	.. 533	Not available	6,081	2,871	705	671	1,295
1974-75	.. 489	Not available	10,167	4,489	1,148	638	2,703

A test check (September 1975) of the way bills pertaining to Taratola depot during the period from 1973-74 to 1974-75 revealed that in most cases only one denomination of the tickets was checked by the line supervisory staff, leaving other columns for different denominations of tickets blank, although they were required to check all denominations.

## 9. Operational efficiency

9.01. The following table gives details of operations of the Corporation during the six years ending 1974-75 :

A—City services		1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
Number of routes (as on 31st March)	..	20	20	29	36	37	38
Route kilometres	..	387.5	387.5	362.2	490.62	497.88	516.83
Average route distance (in kilometres)	..	13.35	13.35	12.48	13.62	13.45	13.60
Number of schedules	..	554	554	554	640	655	682
Scheduled kilometres (in lakhs)		528	528	448	463	479	487
Effective kilometres operated (in lakhs)		288	240	223	307	267	244
Operational efficiency (percentage)		54.5	45.4	49.8	66.8	55.7	50.1
Number of passengers carried (in lakhs)		3,510	2,898	2,712	3,475	3,077	Not available
Number of passengers carried per bus (in lakhs)		6.3	5.9	5.8	6.1	6.0	Not available

## B—Long distance routes

	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
Number of routes (as on 31st March)	1	1	3	8	10	12
Route kilometres ..	252	252	824	1,576	1,962	2,487
Average route distance (in kilometres)	252.0	252.0	274.7	197.0	196.2	207.3
Number of schedules ..	2	2	6	20	30	36
Scheduled kilometres (in lakhs)	2	2	5	9	17	23
Effective kilometres operated (in lakhs)	2	2	5	9	17	23
Operational efficiency (percentage)	100	100	100	100	100	100
Number of passengers carried (in lakhs)	Not available	Not available	Not available	Not available	5.8	8.2
Number of passengers carried per bus (in lakhs)	Not available	Not available	Not available	Not available	0.29	0.32

Note : Figures have been furnished by the Management.

9.02. **Fleet and vehicle utilisation:** The table below shows the number of vehicles held in fleet, vehicles on road, percentage of fleet utilisation and average kilometres per bus on road per day, etc. for the six years ending 1974-75 :

## A-City Services

Particulars	1969-70	1970-71	1971-72	1971-72	1973-74	1974-75
Average number of vehicles held in fleet	1,110	1,074	1,086	1,206	1,320	1,375
Average number of vehicles on road per day	559	491	467	571	516	465
Average number of vehicles off road per day	551	583	619	635	804	910
Percentage of fleet utilisation	50.4	45.7	43.0	47.3	39.1	33.8
Percentage of vehicles off road to total fleet strength	49.6	54.3	57.0	52.7	60.9	66.2
Number of new buses put in the fleet	54	90	143	185	101	67
Number of buses con- demned	92	124	82	1	60	Nil
Average daily vehicles utilisation (in kilometres)	141	133	131	147	142	144
Total kilometres operated (in lakhs)	311	260	242	330	286	259
Effective kilometres ope- rated (in lakhs)	288	240	223	307	267	244
Dead kilometres operated (in lakhs)	23	20	19	23	19	15
Percentage of dead kilo- metres to kilometres operated	7.4	7.7	7.9	7.0	6.6	5.8

Note : Figures up to 1972-73 are based on 'Transport Statistics 1960-61 to 1972-73' compiled by the Corporation and those for 1973-74 and 1974-75 have been furnished by the Management.

**B—Long distance routes**

	1968-70	1970-71	1971-72	1972-73	1973-74	1974-75
Average number of vehicles held in fleet	2	2	5	12	18	25
Average number of vehicles on road per day	2	2	4	11	17	24
Average number of vehicles off road per day	Nil	Nil	1	1	1	1
Percentage of fleet utilisation	100	100	80.0	91.7	94.4	96.0
Percentage of vehicles off road to total fleet strength	Nil	Nil	20.0	8.3	5.6	4.0
Number of new buses put in the fleet	Nil	Nil	2	7	9	6
Number of buses condemned	Nil	Nil	Nil	Nil	Nil	Nil
Average daily vehicles utilisation (in kilometres)	264	264	332	217	277	260
Total kilometres operated (in lakhs)	2	2	5	9	18	24
Effective kilometres operated (in lakhs)	1.93	1.93	4.85	8.73	17.17	22.75
Dead kilometres operated (in lakhs)	0.07	0.07	0.15	0.27	0.83	1.25
Percentage of dead kilometres to kilometres operated	3.50	3.50	3.00	3.00	4.61	5.21

*Note :* Figures have been furnished by the Management.

The poor utilisation of vehicles was attributed by the Management from time to time mainly to (i) shortage of spare parts, tyres and tubes and delay in repairs in the central workshop of the Corporation, (ii) poor outshedding of vehicles due to excessive absenteeism of drivers and conductors and (iii) bad road conditions, mainly in rainy season.

The overall percentage of dead kilometres to kilometres operated in the city services varied from 5.8 in 1974-75 to 7.9 in 1971-72. The dead kilometres were mainly on account of location of bus depots far away from the starting points of the routes in most places.

More than 50 per cent of the buses in the city services were off road. The effective utilisation of even the vehicles put on road was reduced due to break-downs, accidents and cancellation of trips.

9.03. **Break-downs:** The following table indicates the break-downs in the city services during the six years ending 1974-75 :

	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
Total kilometres operated (in lakhs)	311	260	242	330	286	259
Total number of break-downs (due to mechanical failures)	82,178	71,944	70,580	64,538	74,095	73,784
Break-downs per 10,000 kilometres	26.4	27.7	29.2	19.6	25.9	28.5
Average number of break-downs per day	225	197	193	177	203	202
Rate of break-downs per vehicle on road	147.0	146.5	151.1	113.0	143.6	148.7

In test audit of the daily break-down statements relating to a depot (Belghoria) for one month each during the three years ending 1974-75, it was noticed (August 1975) that a number of buses reported break-down frequently, in some cases in both the shifts in which they were put, mainly due to mechanical causes. It was also noted that there were instances of repeated break-downs of the same bus in a month.

9.04. The Enquiry Commission appointed by Government in June 1974 in their preliminary report (September 1974) observed that the increasing trend of break-downs in the city was mainly due to poor maintenance and repairs of vehicles in the depots owing to overcrowding of vehicles in the depots and that with the present break-down rates, it was quite possible that scheduled maintenance was overlooked to give precedence to repairs. The Board (May 1974) and also the Chairman (August 1975) observed that proper care was not taken of the buses at the different depots.

9.05. The expenditure on repairs and maintenance of buses during the five years ending 31st March 1974 is as indicated below :

Year					Amount of expenditure	Average number of buses on road	Expenditure per bus per annum
					(In lakhs of Rupees)		(Rupees)
1969-70	..	..	..	..	223.32	561	39,807
1970-71	..	..	..	..	189.71	493	38,480
1971-72	..	..	..	..	200.31	471	42,528
1972-73	..	..	..	..	256.35	582	44,047
1973-74	..	..	..	..	267.36	533	50,160

9.06. **Accidents:** The table below indicates the total number of accidents, number of vehicles on road, number of accidents per bus operated and number of accidents per 10,000 bus kilometres run during the four years ending 1974-75 :

Year				Total number of accidents	Number of vehicles on road	Number of accidents per vehicle	Number of accidents per 10,000 effective kilometres
1971-72	..	..	..	446	471	0.95	0.19
1972-73	..	..	..	839	582	1.44	0.26
1973-74	..	..	..	666	533	1.25	0.24
1974-75	..	..	..	694	489	1.42	0.26

9.07. The following table indicates the compensation paid on account of accidents and the number of pending cases during the four years up to 1974-75 :

Year				Compensation paid (Rupees)	Cases pending at the end of the year
1971-72	..	..	..	10,650	31
1972-73	..	..	..	9,909	36
1973-74	..	..	..	9,312	58
1974-75	..	..	..	5,336	44

9.08. **Regularity of services:** The table below indicates the details of the scheduled and cancelled trips during the five years up to 1974-75 :

Year					Number of trips scheduled	Number of trips cancelled	Percentage of cancelled trips to scheduled trips
					(In lakhs)		
1970 71	..	..	..	..	19.08	10.62	55.7
1971-72	..	..	..	..	18.44	10.87	58.9
1972-73	..	..	..	..	17.86	5.04	32.5
1973-74	..	..	..	..	17.58	7.57	43.1
1974-75	..	..	..	..	17.80	8.73	49.0

The main reasons for cancellation of trips were stated to be want of crew, mechanical failures and late supply of buses.

## 10. Oil and lubricants

10.01. The expenditure on high speed diesel oil and lubricants during the five years ending 1973-74 was as follows:

Year	Amount spent on		Total operating expenses	Percentage of expenditure on fuel and lubricants to operating expenses	Fuel consumption (in kilolitres)		Gross kilometres operated (In lakhs)	Cost per gross kilometre		Kilometres obtained per litre of H. S. D oil	
	H. S. D. oil	Lubricants			H. S. D. oil	Lubricants		H. S. D. oil	Lubricating oil of H. S. D oil		
	(In lakhs of Rupees)										
1969-70 ..	104.52	13.98	795.84	14.89	13,233	Not available.	313	36.04	4.83	2.10	
1970-71 ..	88.51	11.00	739.16	13.46	10,685	Not available.	262	36.57	4.55	2.27	
1971-72 ..	90.73	17.79	859.65	12.62	9,814	Not available.	247	39.80	7.80	2.32	
1972-73 ..	120.28	14.20	988.92	13.63	13,876	Not available.	339	38.06	4.50	2.27	
1973-74 ..	113.79	19.71	1037.15	12.87	11,588	Not available.	304	40.06	6.94	2.44	

Note : Data for 1974-75 were not compiled by the Corporation (February 1976).

10.02. No norms for consumption of high speed diesel oil and lubricating oil have been fixed by the Corporation. The Management stated (February 1976) that norms could not be fixed due to the following reasons:

- (i) Bad road condition;
- (ii) heavy passenger load;
- (iii) big traffic jams and traffic hazards; and
- (iv) aging of vehicles.

10.03. **Tyres:** The details of expenditure on tyres during the five years up to 1973-74 are indicated below :

Year	Effective kilometres operated	Total expenditure on tyres	Expenditure on tyre per kilometre
	(In lakhs)	(In lakhs of Rupees)	(In Paise)
1969-70 .. .. .	290	43.37	14.98
1970-71 .. .. .	242	40.68	16.84
1971-72 .. .. .	228	43.50	19.08
1972-73 .. .. .	316	46.13	14.60
1973-74 .. .. .	284	61.44	21.61

*Note :* Data for 1974-75 not compiled by the Corporation (February 1976)

10.04. According to the norms fixed by the Corporation (February 1972), tyres should be retreaded before covering 0.35 lakh kilometres for better and longer life. The table below indicates the number of tyres which were retreaded after reaching the retreading stage during the four years ended 1973-74 :

(Figures in lakh kilometres)

Year	1100 × 20 size		1000 × 20 size		900 × 20 size	
	Number of tyres	Kilometres run (In lakh)	Number of tyres	Kilometres run (In lakh)	Number of tyres	Kilometres run (In lakh)
1970-71 ..	164	0.59	1,544	0.43	1,448	0.42
1971-72 ..	159	0.52	1,613	0.38	1,194	0.39
1972-73 ..	82	0.52	1,839	0.35	1,720	0.36
1973-74 ..	29	0.54	1,953	0.35	1,486	0.36

The Management stated (February 1972) that owing to acute shortage of new tyres the Corporation could not remove the used tyres from the vehicles in operation at the appropriate time for retreading. The Management observed (March 1974) that due to paucity of funds the procurement of new tyres had been very poor and that the shortfall in the supply of tyres to different depots affected the smooth maintenance of vehicles. The shortfall in the supply of tyres to different depots in March 1974 was reported to be as under :

Depot	1000 × 20 size	900 × 20 size
Lake depot .. .. .	98	10
Belghoria depot .. .. .	88	16
Paikpara depot .. .. .	82	20
Howrah depot .. .. .	80	20
Taratata depot .. .. .	35	12
Manicktala depot .. .. .	..	35
<b>Total ..</b>	<b>383</b>	<b>113</b>

10.05. The following table gives an analysis of the tyres scrapped during the four years up to 1973-74 :

Particulars	1970-71		1971-72	
	Number of tyres scrapped	Percentage to total tyres scrapped	Number of tyres scrapped	Percentage to total tyres scrapped
Tyres before retreading ..	2,470	78.1	1,657	55.9
Retreaded tyres ..	692	21.9	1,309	44.1
	<u>3,162</u>		<u>2,966</u>	
	1972-73		1973-74	
	Number of tyres scrapped	Percentage to total tyres scrapped	Number of tyres scrapped	Percentage to total tyres scrapped
	2,288	62.8	2,446	70.5
	1,353	37.2	1,022	29.5
	<u>3,641</u>		<u>3,468</u>	

10.06. **Premature failure of tyres:** There were instances of tyres being scrapped prematurely. A test check (February 1976) of records of Belghoria depot revealed that out of 635 new tyres scrapped (without any retreading) during 1974-75, 350 (55 per cent) failed prematurely (before running 35,000 kilometres) as shown in the following table :

Total distance covered before being scrapped (kilometres)	Number of new tyres scrapped (1974-75)		
	900 x 20 size	1000 x 20 size	1100 x 20 size
Up to 4,999 .. ..	1	..	..
5,000 to 14,999 .. ..	11	10	..
15,000 to 24,999 .. ..	53	63	..
25,000 to 34,999 .. ..	134	76	2
35,000 and above .. ..	210	75	..
<b>Total</b> .. ..	<b>409</b>	<b>224</b>	<b>2</b>

10.07. According to the norms fixed by the Board (November 1971) a tyre should run 50,000 kilometres including retreading. A test check (February 1976) of records of Belghoria depot revealed that out of 409



retreaded tyres scrapped during 1974-75, 155 (38 per cent) failed prematurely (before running 50,000 km including new life and retreaded life), as shown in the following table :

Total distance covered before being scrapped (kilometres)	Number of retreaded tyres scrapped (1974-75)		
	900 x 20 size	1000 x 20 size	1100 x 20 size
Up to 19,999 .. .. .	1	4	..
20,000 to 29,999 .. .. .	4	15	..
30,000 to 39,999 .. .. .	15	19	..
40,000 to 49,999 .. .. .	65	32	..
50,000 and above .. .. .	214	38	2
Total .. .. .	299	108	2

The premature failures of new and retreaded tyres were attributed by the Management mainly to (i) a suitable retreading/resoling programme not being followed and (ii) bad maintenance of tyres. The Estimates Committee in their sixteenth report observed (March 1974) that when the tyres were actually taken out from buses they were already unfit for retreading due to overuse, and that had it been possible to make timely replacement for retreading, the life of tyres could have prolonged two fold. This view was also expressed by the Enquiry Commission in September 1974.

10.08. **Batteries:** The details of expenditure on batteries during the five years up to 1973-74 are given below :

Year	Effective kilometres operated	Total expenditure on batteries	Expenditure on batteries per kilometre
	(In lakhs)	(In lakhs of Rupees)	(In Paise)
1969-70 .. .. .	290	3.31	1.14
1970-71 .. .. .	242	2.16	0.89
1971-72 .. .. .	228	3.42	1.50
1972-73 .. .. .	316	4.14	1.31
1973-74 .. .. .	284	3.53	1.24

Note : Data for 1974-75 not compiled by the Corporation (February 1976)

## 11. Central Workshop

11.01. The Central Workshop at Belghoria was set up in 1952. It consists of (i) body building shop; (ii) tyre retreading shop; (iii) overhauling shop; and (iv) machine shop. Routine maintenance of vehicles is done at the depots.

11.02. The capital investment on the workshop at the end of 1973-74 was as follows :

Particulars	Investment (In lakhs of Rupees)
Land .. .. .	2.94
Buildings .. .. .	11.76
Sheds .. .. .	8.47
Fixture and Fittings .. .. .	5.75
Plant and Machinery .. .. .	15.85
Tools and Implements .. .. .	4.71
Other assets .. .. .	1.09
Total .. .. .	50.57

11.03. **Body building unit:** This unit was established for the construction of new bus bodies and renovation and rebuilding of old buses. Mention was made in paragraph 3 of section V of the Report of the Comptroller and Auditor General of India for the year 1972-73 (Commercial) of the performance of the unit below its capacity up to 1972-73, placing of orders with private firms for building bodies of buses while the departmental unit was not operating to its full capacity, obtaining approval of the Board for such orders *ex-post-facto* and payments made under an incentive scheme for workers.

The unit continued to function below its capacity during 1973-74 and 1974-75 (actual output being 334.14 units and 343.77 units respectively against the capacity of 360 units per annum). Orders for the construction of 25 single deck and 10 double deck bus bodies (22 single deck and 10 double deck with a Calcutta firm and 3 single deck with a Madras firm) were placed in September 1972 and June 1973 without inviting any tender. Subsequently, orders for construction of 90 double deck bodies were placed with six private firms (70 with four Calcutta firms and 20 with two Bombay firms) in July 1973. There was no indication of prior assessment of the internal production capacity before placing these orders. In all these cases, approval of the Board was obtained *ex-post-facto*. While approving the construction of 10 double deck bodies, the Board directed (January 1974) that work should not be entrusted in future to outside parties without prior assessment of the production capacity available internally.

11.04. **Tyre retreading unit:** This unit was established in March 1957. The following table indicates the capacity of the unit fixed from time to time:

Period	Retreading capacity per annum	Repairing capacity per annum
	(Number of tyres)	
Up to 26th November 1972 .. .. .	3,168	5,808
27th November 1972 onwards .. .. .	5,484	9,600

The details of the performance of the shop during the nine years ending 1974-75 are given below:

Year	Retreading		Repairing	
	Performance (Number of tyres)	Percentage of utilisation	Performance (Number of tyres)	Percentage of utilisation
1966-67 .. .. .	2,235	70.55	5,635	97.02
1967-68 .. .. .	2,518	79.48	8,021	148.43
1968-69 .. .. .	1,923	60.70	7,844	135.06
1969-70 .. .. .	2,059	64.99	6,034	103.89
1970-71 .. .. .	2,285	72.13	5,536	95.82
1971-72 .. .. .	1,942	61.30	5,588	96.21
1972-73 .. .. .	2,341	59.42	7,569	107.03
1973-74 .. .. .	2,066	37.67	11,122	115.85
1974-75 .. .. .	1,475	26.89	8,177	85.18

Though the output of the tyre retreading unit fell short of the capacity, resoling work on some tyres was entrusted to outsiders in 1971-72 at a cost of Rs.0.22 lakh. Particulars of orders placed outside from 1972-73 onwards are awaited (February 1976).

Machine cards are not being maintained to assess the extent of machine utilisation.

11.05. **Overhauling unit:** This unit was established mainly for (i) engine overhauling and (ii) bus chassis overhauling. No norms of the work or production were laid down initially. A committee appointed by the Corporation fixed the following capacity for the unit in November 1968:

- (a) Engine overhauling—10 to 12 per month.
- (b) Chassis overhauling—10 to 12 per month.

11.06. The table below indicates the performance of the unit during the six years ending 1974-75.

Year	Number of	
	Engines overhauled	Chassis overhauled
1969-70 .. .. .	55	66
1970-71 .. .. .	95	90
1971-72 .. .. .	119	97
1972-73 .. .. .	124	129
1973-74 .. .. .	142	141
1974-75 .. .. .	142	141

11.07. **Machine shop unit:** This unit undertakes reconditioning of major assembly spares. The details regarding the capacity of the workshop for this item were not furnished to Audit (February 1976). Value of production during the six years ending 1974-75 is shown below :

Year	Value of production (Rupees)
1969-70 .. .. .	4,38,790
1970-71 .. .. .	5,40,772
1971-72 .. .. .	7,15,106
1972-73 .. .. .	6,70,472
1973-74 .. .. .	7,21,191
1974-75 .. .. .	13,39,184

11.08. **Vehicles lying at Central Workshop:** The following table shows the position of vehicles awaiting repair/renovation at the Central Workshop as on 31st January during the four years ending 1975:

	As on 31st January			
	1972	1973	1974	1975
	(Number of vehicles)			
Double decker .. .. .	27	35	50	85
Single decker .. .. .	90	85	75	87
Total .. .. .	117	120	125	172

Out of 172 vehicles awaiting repair on 31st January 1975, 53 had been lying in the Central Workshop for more than one year. The Management stated that want of materials was a factor responsible for the delays.

## 12. Civil engineering unit

12.01. The civil engineering unit started functioning in February 1961. All construction and repair works of the Corporation are being done by this unit which consists of 47 members of staff including an executive engineer and two assistant engineers.

12.02. The table below indicates the value of work done by the unit and the establishment charges incurred during the fourteen years ending 1974-75:

Year		Value of works executed	Total establishment charges for engineering unit	Percentage of establishment charges to value of work executed	Percentage of departmental charges leviable on the value of the work if the work had been executed by the Government Agency
		(In lakhs of Rupees)			
1961-62	..	3.18	0.51	16.04	12.5
1962-63	..	6.80	0.90	13.24	12.5
1963-64	..	4.75	0.84	17.68	12.5
1964-65	..	6.04	1.08	17.88	12.5
1965-66	..	12.68	1.41	11.12	12.5
1966-67	..	5.61	1.41	25.13	12.5
1967-68	..	2.95	1.19	40.34	12.5
1968-69	..	3.00	1.19	39.67	12.5
1969-70	..	3.20	1.17	36.56	12.5
1970-71	..	1.87	1.38	73.80	12.5
1971-72	..	3.93	1.46	37.15	12.5
1972-73	..	28.86	1.98	6.86	12.5
1973-74	..	19.17	2.51	13.09	12.5
1974-75	..	18.98	Not available	..	12.5

12.03. The table below indicates the budget forecast and value of works executed thereagainst during the four years ending 1974-75:

Year					Budget forecast	Value of works executed	Percentage of value of works executed to budget forecast
					(In lakhs of Rupees)		
1971-72	..	..	..	..	19.20	3.93	20.47
1972-73	..	..	..	..	35.57	28.86	81.13
1973-74	..	..	..	..	41.50	19.17	46.19
1974-75	..	..	..	..	66.70	13.98	20.96

### 13. Printing Press

13.01. The printing press of the Corporation was set up at Belghoria in 1956. The press has been printing all bus tickets, discount coupons, holiday tickets, fare tables, leaflets, posters, pamphlets, forms, job cards, paybill, etc. for the Corporation; it has also been doing some jobs for North Bengal State Transport Corporation, Durgapur State Transport Corporation and other departments of the State Government.

13.02. The capital investment in the printing press as on 31st March 1974 was Rs.16.47 lakhs (Buildings: Rs.0.54 lakh, plant and machinery: Rs.15.91 lakhs and tools and accessories: Rs.0.02 lakh).

13.03. **Performance of the press:** The table below indicates the details of printing of bus tickets done during the six years ending 31st March 1975:

Year					Capacity of the machine as assessed in 1963-64	Production
					(In lakhs)	(In lakhs)
1969-70	..	..	..	..	6,000	3728.80
1970-71	..	..	..	..	6,000	3130.20
1971-72	..	..	..	..	6,000	2835.20
1972-73	..	..	..	..	6,000	3806.30
1973-74	..	..	..	..	6,000	3214.69
1974-75	..	..	..	..	9,000*	3065.32

\*Capacity increased due to purchase of new machines at a cost of Rs. 15.91 lakhs.

13.04. Machine log books are not being maintained. Norms have not been fixed for men and machines working in the press; in their absence the extent of utilisation could not be assessed. Although the Corporation prescribed (January 1972) a cost accounting procedure for the press, it has not been introduced (January 1976).

13.05. Norms for wastage of paper have not been prescribed so far (January 1976). Also, no records are maintained to indicate the actual wastages.

#### 14. Purchase procedure

14.01. Purchases of value not exceeding Rs.15,000 each are required to be made from the approved list of dealers by inviting quotation. Where the value exceeds Rs.15,000 each, the purchase is required to be made on the basis of open tenders by advertisement in the Calcutta press. In respect of spare parts and components of all types of vehicles as well as plant and machinery, purchases should be made direct from the manufacturers or their accredited agents without obtaining quotations when they are the sole source of supply and in other cases purchases should be made by taking quotation from all agents where there would be more than one agent.

The Controller of Stores, Works Manager (Central Workshop) and Depot Managers are empowered to purchase stores locally in case of urgency up to a limit of Rs.3,000 per month, when the store materials are not available in Central or Depot Stores, by inviting quotations from not less than three suppliers of the approved list.

Requirements of various items of stores and spares are to be assessed correctly and reviewed periodically and purchases are required to be made in bulk so as to secure better competitive rate.

14.02. A test check of purchases revealed the following points:

- (a) There were delays in indenting, issuing enquiries and placing orders. A few cases of delay in finalising the enquiries/tenders are given below:
  - (i) Tender was invited on 19th January 1973 for the purchase of 14,949 pieces of Khaki full pants. Order for the supply was placed with the lowest tenderer (at the rate of Rs.10.05 per piece) on 7th April 1973, i.e., about 3 months after the invitation of tender. The firm expressed its inability (17th April 1973) to execute the order due to non-availability of required variety of cloth. After negotiation with all other tenderers on 19th May 1973, revised orders were placed with four firms (at the rate of Rs.11.55 per piece) on 25th May 1973. This delay in finalisation of tender resulted in an extra expenditure of Rs.0.22 lakh.

(ii) Against quotations invited in May 1973, the Corporation placed an order (March 1974) on a firm under Director General, Supplies and Disposals rate contract, for the supply of one diesel engine driven air compressor at a cost of Rs.0.67 lakh. As the rate contract had expired on 28th February 1974, the compressor was supplied at Rs.0.94 lakh being the price as per the new rate contract. The delay in finalisation of the purchase entailed an extra expenditure of Rs.0.27 lakh.

(b) For purchase of spare parts valued at Rs.0.34 lakh (October 1973) and Rs.1.37 lakhs (July 1974) the Corporation did not invite any tender.

### 15. Inventory control

15.01. The details of stores purchased and consumed during the four years ending 1974-75 are as follows:

	1971-72	1972-73	1973-74	1974-75
	(In lakhs of Rupees)			
Opening balance ..	133.39	173.74	205.34	202.27
Receipt during the year ..	310.51	359.60	323.20	Not available
Issue during the year ..	270.16	328.00	326.27	Not available
Closing balance ..	173.74	205.34	202.27	200.17*

The closing stock was equal to 7.72, 7.51 and 7.44 months' consumption during 1971-72, 1972-73 and 1973-74 respectively.

15.02. The value of stores per bus held is indicated in the following table:

Year	Number of buses held at the end of the year	Value of stores and spares held at the end of the year	Average value of stores per vehicle held
		(In lakhs of Rupees)	(Rupees)
1971-72 .. ..	1,122	173.74	15,485
1972-73 .. ..	1,313	205.34	15,631
1973-74 .. ..	1,363	202.27	14,840
1974-75 .. ..	1,436	200.17*	13,939

\*Provisional



15.03. Test check of store records disclosed the following deficiencies:

- (i) The minimum, maximum and re-ordering levels of stores and spares were not fixed.
- (ii) The Corporation did not compile any stores manual.
- (iii) No bin cards were maintained.
- (iv) Priced store ledgers were not reconciled with the quantity ledgers. Reconciliation between the priced store ledgers and financial accounts was also not made.
- (v) Periodical review of inventory to assess and dispose of surplus/obsolete items of stores and spares was not conducted. A test check of the store ledgers showed that 1,363 items of spares (cost: Rs.4.82 lakhs) relating to A.E.C. make vehicles (Mark III and V) had not been issued during 1969-70 to 1973-74 and 1,007 items of A.E.C. (Mark III and V) spares (cost: Rs.3.59 lakhs) had not moved during 1967-68 to 1973-74. In July 1975, the Board resolved that detailed investigation should be carried out to ascertain the quantum of obsolete stocks. Results of action taken are awaited (March 1976).
- (vi) Adequate security deposits according to the scale proscribed by the Corporation were not collected from stores officials.
- (vii) Consumption of stores as shown in the accounts was being arrived at by deducting the closing stock found during physical verification from the total of opening stock and purchases during the year and not by working out the actual consumption of stores with reference to store issue vouchers.
- (viii) Value of excesses and shortages of stores noticed on physical verification during the period 1971-72 to 1973-74 was as indicated below:

Year	Excess	Shortage
	(In lakhs of Rupees)	
1971-72 .. .. .	1.91	2.83
1972-73 .. .. .	1.95	1.83
1973-74 .. .. .	2.07	2.13

The shortages were not written off every year with the sanction of appropriate authority. Both excesses and shortages are automatically adjusted in accounts against consumption as the consumption is arrived at by the incorrect method indicated at (vii) above.

15.04. The store items were not analysed age-wise or value-wise for effecting cost reduction through inventory control. The non-moving items registered an increasing trend during the three years ending 31st March 1974:

As on 31st March				Value (In lakhs of Rupees)		
1972	..	..	..	..	..	10.70
1973	..	..	..	..	..	11.79 ]
1974	..	..	..	..	..	12.43

15.05. In February 1969, the Metropolitan Transport Team of the Planning Commission in its report on mass transportation system in Calcutta had observed that the Corporation had been suffering from overstocking besides shortages. The team recommended that modern method of stock control on the basis of A.B.C. analysis should be introduced. The recommendation of the team has not been given effect to as yet (March 1976).

#### 16. Man-power analysis

16.01. The table below indicates the extent of staff utilisation during the seven years ending 1974-75:

		At the end of						
		1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
1.	Number of depots ..	5	5	5	5	6	6	6
2.	Number of schedules ..	554	554	554	554	640	655	682
3.	Number of vehicles held in fleet.	1,131	1,093	1,059	1,122	1,313	1,363	1,436
4.	Average number of vehicles on road.	592	561	493	471	582	533	489
5.	Staff employed							
	(a) Operating staff ..	7,712	7,902	7,795	7,743	7,942	7,884	8,198
	(b) Overall ..	13,078	13,171	12,997	12,905	13,092	13,184	13,100
6.	Staff ratio to number of schedules							
	(a) Operating staff ..	13.92	14.26	14.07	13.97	12.40	12.03	12.02
	(b) Overall ..	23.60	23.77	23.46	23.60	20.45	20.13	19.20
7.	Number of operating staff per vehicle on road.	13.03	14.09	15.81	16.44	13.65	14.79	16.76
8.	Number of overall staff per vehicle held in fleet.	11.56	12.05	12.27	11.50	9.96	9.67	9.12
9.	Number of overall staff per vehicle on road.	22.09	23.48	26.36	27.40	22.49	24.74	26.79

The Estimates Committee in their sixteenth report observed (March 1974) that the vehicle staff ratio in the Corporation was the highest as compared to other States in the country.

16.02. The admissible strength of running crew (drivers and conductors) per bus was as under :

- (a) Drivers—3 per bus,  
 (b) Conductors—6.25 per bus.

The table below indicates the vehicle running crew (drivers and conductors) ratio during the seven years up to 1974-75 :

	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
Number of vehicles held in fleet as on last day of the year	1,131	1,093	1,059	1,122	1,313	1,363	1,436
Average number of vehicles on road	592	561	493	471	582	533	489
Drivers and conductors employed							
(a) Drivers .. ..	2,078	2,083	2,032	1,975	2,124	2,231	2,175
(b) Conductors .. ..	4,424	4,594	4,525	4,534	4,475	4,324	4,222
Number of drivers and conductors per vehicle on road							
(a) Drivers .. ..	3.51	3.71	4.12	4.19	3.65	4.19	4.45
(b) Conductors .. ..	7.47	8.19	9.18	9.02	7.69	8.11	8.63
Number of drivers and conductors per vehicle held in fleet							
(a) Drivers .. ..	1.84	1.91	1.94	1.76	1.62	1.64	1.51
(b) Conductors .. ..	3.91	4.20	4.27	4.04	3.49	3.17	2.94

It would be seen from the above table that the running crew (drivers and conductors) vehicle ratio exceeded the admissible ratio during all the seven years. A sum of Rs.30.76 lakhs was paid as overtime allowance to the running crew during the two years ending 31st March 1974.

16.03. The following table will show that pay and allowances accounted for about half of the operating expenses :

	Total number of staff	Pay and allowances	Total operating expenses	Percentage of pay and allowances to operating expenses
		(In lakhs of Rupees)		
1969-70 .. ..	13,171	400.38	795.84	50.31
1970-71 .. ..	12,997	404.26	739.16	54.69
1971-72 .. ..	12,905	410.72	859.65	47.78
1972-73 .. ..	13,092	502.77	986.92	50.94
1973-74 .. ..	13,184	535.75	1037.15	51.66

16.04. **Staff amenities:** Apart from statutory amenities like medical facilities, canteen facilities, etc. the Corporation has been extending other benefits like free transport and bus passes.

The particulars of the amounts spent on the amenities by the Corporation during the three years up to 1973-74 are indicated below :

				1971-72	1972-73	1973-74
(In lakhs of Rupees)						
Canteen subsidy	..	..	..	2.24	0.68	1.00
Medical	..	..	..	3.49	3.99	3.64

*Note :* Data for 1974-75 not compiled by the Corporation (February 1976)

### 17. Costing system, Internal audit, etc.

17.01. **Costing system:** Activities of the Corporation requiring compilation of costs are as follows :

- (1) Traffic operations.
- (2) Repairs and complete overhaul of vehicles.
- (3) Building of bus bodies in the body building unit.
- (4) Recapping, retreading, etc. of tyres and tubes.
- (5) Printing of tickets, etc., in the printing press.

A cost accounting cell headed by an Accounts Officer (Cost) has been functioning since the formation of the Corporation. Only historical job costing system for works done in the Central Workshop has been adopted so far (October 1975).

17.02. The Board approved (March 1969) a scheme of reorganisation of the accounts branch including costing and internal audit with effect from 1969-70 to achieve the following objects in a phased programme :

- (a) to maintain all records connected with job costing of repairing works;
- (b) to introduce costing system in the printing press;
- (c) to maintain all records in connection with consumption of fuel, tyres and tubes, etc.

17.03. The following deficiencies were noticed in the existing system during test check (January 1976) :

- (i) Standards for normal wastage had not been fixed;
- (ii) variance analysis had not been conducted;

- (iii) idle labour cost had not been assessed and analysed;
- (iv) overhead rates introduced in 1971-72 remained unrevised; and
- (v) job cost cards for works executed by Central Workshop after 1st April 1974 have not so far been completed (October 1975).

17.04. The Estimates Committee pointed out (March 1974), *inter alia*, that (i) there was no system of cost accounting or cost analysis, (ii) there was no system for computing the average maintenance cost per bus and average cost of running a vehicle per kilometre, and (iii) history sheets of buses and spare parts were not properly maintained.

17.05. **Internal audit:** There is an internal audit department functioning since 1960 under the control of the Chief Accounts Officer. No manual indicating the scope and functions of internal audit has so far been compiled (October 1975). The internal audit is mainly engaged in the pre-audit of salary bills, suppliers' bills, civil construction bills, etc. and processing of inspection reports of statutory audit. No periodical internal audit report is submitted to the Board.

#### 18. Other topics of interest

18.01. **Non-payment of road tax:** Mention was made in paragraph 55 of the Report of the Comptroller and Auditor General of India for the year 1973-74 Revenue Receipts (Civil) of arrears of road tax of Rs.80 lakhs due from the Corporation up to March 1974. The arrears of tax due up to March 1975 amounted to Rs.103.94 lakhs, as detailed below:

Name of depot	Amounts
	(In lakhs of Rupees)
Belghoria depot .. .. .	21.01
Lake depot .. .. .	23.72
Paikpara depot .. .. .	21.95
Howrah depot .. .. .	23.24
Taratola depot .. .. .	11.27
Maniktala depot .. .. .	2.75
	103.94

No payment on this account has been made so far (March 1976). Non-payment of road tax was attributed by the Management to paucity of funds. The Corporation represented to Government in October 1973 that it should be exempted from payment of tax. No order has been passed by Government so far on this representation (October 1975),

18.02. **Non-investment of contributions of contributory provident fund:** The Corporation falls within the purview of the Employees' Provident Fund Scheme, 1952, framed under the Employees' Provident Fund Act, 1952. The Corporation has not been granted exemption under Section 17 of the Employees' Provident Fund Act, 1952, from the obligation to transfer the contributory provident fund balance to the Regional Provident Fund Commissioner. It has not transferred the fund and the work of maintenance of the accounts thereof to the Regional Provident Fund Commissioner so far (January 1976).

The Corporation had invested the employer's and the net share of employees' contribution to contributory provident fund only up to November 1969 and March 1972 respectively (June 1975).

18.03. A total amount of Rs.283.71 lakhs was awaiting investment at the end of June 1975 as indicated below :

Year	Employer's contribution including shortfall of interest	Net share of employees' contribution (i.e. employees' contribution plus loan recoveries minus loan disbursed and final payments made)	Total
(In lakhs of Rupees)			
1969-70 .. .. .	9.72	..	9.72
1970-71 .. .. .	32.10	..	32.10
1971-72 .. .. .	35.29	..	35.29
1972-73 .. .. .	37.06	14.42	51.48
1973-74 .. .. .	42.37	24.19	66.56
1974-75 .. .. .	54.55	8.10	62.65
1975-76 .. .. . (up to June 1975)	10.80	5.03	15.83
	221.89	51.74	273.63
Matured investment of contributory provident fund accumulation not reinvested			10.08
			283.71

Non-investment of funds was attributed by the Management to financial stringency. The Board resolved (June 1975) that both the employer's and the net share of employees' contribution should be set apart and invested regularly every month commencing from June 1975. During the period from July 1975 to December 1975 the Corporation invested a sum of Rs.51.77 lakhs which included an amount of Rs.10.90 lakhs representing arrear contributions.

The Board resolved (June 1975) that the Government should be requested to advance funds to clear the arrear contributions.

## SECTION VII

## OTHER TOPICS OF INTEREST

## NORTH BENGAL STATE TRANSPORT CORPORATION

## 1. Loss of revenue due to non-revision of fare on increased route distance

Consequent upon the opening of the Farakka Barrage bridge six North Bengal-Calcutta express bus routes were re-scheduled from 18th February 1972 over the bridge. As a result, the length of the routes increased by 20 kms to 24 kms as detailed below :

Route	Distance prior to opening of Farakka Barrage bridge	Distance after opening of Farakka Barrage bridge	Increase of distance
	(In kilometres)		
Raiganj-Calcutta via Itahar ..	417	440	23
Raiganj-Calcutta via Buniadpur ..	450	470	20
Balurghat-Calcutta (Night service) ..	446	470	24
Balurghat-Calcutta (Day service) ..	446	470	24
Malda-Calcutta (Night service) ..	340	360	20
Malda-Calcutta (Day service) ..	340	360	20

The passenger fares for journeys on these routes continued to be charged on the basis of the original route distance. This resulted in a loss of revenue of about Rs.4.25 lakhs till 21st February 1975, reckoned with reference to the average fare charged on these routes and the occupancy ratio on these routes, as indicated by the Management. The actual route distance was taken into account for calculating the fares with effect from 22nd February 1975 when there was a general revision of tariff.

The matter was referred to Government (November 1975); their reply is awaited (February 1976).

## 2. Procurement of mini buses

To meet the demand of stage carriage services in the hill areas of the Darjeeling district, the Corporation purchased during the period April to August 1972 seven "Dodge" make petrol driven mini bus chassis at a cost of Rs.2.46 lakhs without examining their operational suitability, especially in those areas. A further amount of Rs.1.59 lakhs was spent on departmental construction of bodies on these chassis. These buses had to be withdrawn between November 1973 and March 1975 after service for about a year due to frequent breakage of

axle, trend spring, differential crown tail, etc., and high operational and maintenance cost. These buses were replaced by ten "Telco" make diesel driven mini buses procured in April 1973 at a cost of Rs.6.01 lakhs. Eight of these were placed on service in the hill areas in June-August 1973 and two in August 1975.

One of the petrol driven mini buses has since been sold to the State Government for Rs.0.41 lakh and the other six are lying idle (December 1975). The Management stated (August 1975) that the purchases made earlier were in the context of non-availability of diesel driven mini buses.

The Management also stated that, after withdrawal from hill areas, attempts were made to run these buses in the plains as contract carriages but the proposition was found uneconomic and the idea was dropped.

The matter was reported to Government (November 1975); their reply is awaited (February 1976).



(T. B. NAGARAJAN),  
*Accountant General, West Bengal.*

CALCUTTA,

The 26<sup>th</sup> JUN , 1976.

Countersigned



(A. BAKSI),  
*Comptroller and Auditor General of India.*

NEW DELHI,

The 29<sup>th</sup> JUN , 1976.



**ANNEXURE 'A'**

(Reference : Paragraph 1 of section 1, page 1)

31

**Statement showing summarised financial results of Government Companies**

Sl. No.	Name of the Company	Name of the Department	Date of incorporation	Period of accounts	Total capital invested	Total Profit(+) Loss(-)	Total interest charged to Pro-fit and Loss Account	Inte-rest on long term loans	Total capital invested (7 + 9)	Percen-tage of total return on capital employed (7 + 8)	Capital employed	Total return on capital employed (7 + 8)	Percen-tage of total return on capital employed
1	2	3	4	5	6	7	8	9	10	11	12	13	14
(In lakhs of Rupees excepting columns 11 and 14)													
1.	Kalyani Spinning Mills Limited	Public Under-takings	13-1-1960	1974-75	542.59	(-)147.27	33.28	18.46	(-)128.81	Nil	98.09	(-)113.99	Nil
2.	Durgapur Projects Limited	Do. . .	6-9-1961	1974-75	6203.67	(-)152.65	242.15	242.15	(+)89.50	1.44	3694.61	(+)189.50	2.42
3.	Durgapur Chemicals Limited	Do. . .	31-7-1963	1974-75	1471.78	(-)178.50	55.79	51.48	(-)127.02	Nil	609.32	(-)122.71	Nil
4.	State Fisheries Development Corporation Limited	Fisheries . .	30-3-1966	1974-75	85.20	(-)2.88	..	..	(-)2.88	Nil	69.19	(-)2.88	Nil
5.	West Bengal Industrial Development Corporation Limited	Commerce and Industries	6-1-1967	1974-75	..	(+)26.76	37.16	37.16	..	..	876.14	(+)63.92	7.29

ANNEXURE 'A'—contd.

(Reference : Paragraph 1 of section 1, page 1)

Statement showing summarised financial results of Government Companies

Sl. No.	Name of the Company	Name of the Department	Date of incorporation	Period of accounts	5	6	7	8	9	10	11	12	13	14
					Total Profit(+) or Loss(-)	Total capital invested	Total interest charged to Profit and Loss Account	Inte- long-term loans	Total return on capital invested (7 + 9)	Per- cent- total return on capital invested	Cap- ital employed	Total return on capital employed (7 + 8)	Per- cent- total return on capital employed	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
6.	West Bengal Mi- neral Develop- ment and Tra- ding Corpora- tion Limited	Commerce and Industries	23-2-1973	1974-75	27.90	(-)3.10	..	--	(-)3.10	Nil	20.29	(-)3.10	Nil	
7.	West Bengal Su- gar Industries Development Corporation Limited	Do.	30-6-1973	1974-75	165.27	(-)32.38	6.69	5.87	(-)26.51	Nil	133.25	(-)25.69	Nil	
8.	West Bengal Electronic Industries Development Corporation Limited	Do.	4-2-1974	1974-75	10.00	(-)3.26	..	..	(-)3.26	Nil	5.96	(-)3.26	Nil	
9.	West Bengal State Textiles Corporation Limited	Closed and Sick Indus- tries	19-3-1973	1974-75	251.57	(+)1.40	4.66	4.66	(+)6.06	2.41	251.23	(+)6.06	2.41	

(In lakhs of Rupees excepting columns 11 and 14)

10. West Bengal State Minor Irrigation Corporation Limited	Agriculture and Community Development	29-1-1974	1974-75	149.99	(-)10.11	..	(-)10.11	Nil	148.94	(-)0.11	Nil	
11. West Bengal Essential Commodities Supply Corporation Limited	Food and Supply	15-3-1974	1974-75	65.86	(+)11.44	33.04	2.24	(+)13.88	20.77	65.86	(+)44.48	67.54
12. West Bengal Tourism Development Corporation Limited	Tourism	29-4-1974	1974-75	2.00	(-)0.96	..	..	(-)0.96	Nil	0.28	(-)0.96	Nil
13. West Bengal Agro-Industries Corporation Limited	Public Under-takings	16-8-1968	1973-74	343.52	(+)1.55	..	..	(+)1.55	0.45	343.52	(+)1.55	0.45
14. Westinghouse Saxby Farmer Limited	Do.	19-7-1969 @	1973-74	336.56	(-)42.11	38.27	22.74	(-)19.37	Nil	181.25	(-)3.84	Nil
15. West Bengal Handloom and Powerloom Development Corporation Limited	Do.	25-9-1973	1973-74	27.50	(-)0.32	..	..	(-)0.32	Nil	26.97	(-)0.32	Nil

Note: 1. 'Capital invested' represents paid-up capital plus long-term loans plus free reserves at the close of the year.

2. 'Capital employed' (except in the case of West Bengal Industrial Development Corporation Limited) represents net fixed assets (excluding works-in-progress) plus or minus working capital. In case of West Bengal Industrial Development Corporation Limited, 'Capital employed' represents mean capital employed, i.e. mean of aggregate of opening and closing balances of (i) paid-up capital, (ii) bonds and debentures, (iii) reserves, (iv) borrowings including refinance, and (v) deposits.

@ Became a Government Company on this date.

ANNEXURE 'B'

(Reference : Paragraph 2 of section IV, page 25)

Statement showing summarised financial results of Statutory Corporations/Board

Sl. No.	Name of the Corporation/Board	Name of the Department	Date of incorporation	Period of accounts	3	4	5	6	7	8	9	10	11	12	13	14
					Total capital invested	Total Profit(+) Loss(-)	Total interest charged to Pro-fit and Loss Account	Total intrest rest on long-term loans	Total return on invested capital (7 + 9)	Total return on capital employed	Percen- tage of total return on capital employed	Total return on capital employed (7 + 8)	Percen- tage of total return on capital employed	Capital employed	Total return on capital employed (7 + 8)	Percen- tage of total return on capital employed

(In lakhs of Rupees excepting columns 11 and 14)

(i) Electricity Board

1.	West Bengal State Electricity Board	Power	1-5-1955	1974-75	23455.71	(+)66.14*	323.19	288.05	354.19	1.51	8736.97	389.33	4.46
					1973-74	19322.44	(+)64.86*	326.78	286.52	351.38	1.82	7567.14	391.64

(ii) Other Corporations

1.	West Bengal Financial Corporation	Public Under- takings.	1-3-1954	1974-75	..	(+)23.80	29.02	29.02	..	..	933.45	52.82	5.66
					1973-74	..	(+)16.17	31.22	31.22	..	..	816.22	47.39
2.	West Bengal State Ware- housing Corpo- ration	Do.	31-3-1958	1972-73	62.00	(+)3.42	0.01	..	3.42	5.52	93.06	3.43	3.69
					1971-72	58.75	(+)3.44	0.01	..	3.44	5.86	80.35	3.45

2. Calcutta State Transport Corporation	Home (Transport)	15-6-1960	1973-74	3263.23	(-)	737.67	208.81	173.93	(-)	563.74	..	(-)	156.29	(-)	529.86	..
			1972-73	2873.35	(-)	609.39	168.89	134.00	(-)	475.39	..		114.96	(-)	440.50	..
4. North Bengal State Transport Corporation	Do.	15-4-1960	1970-71	202.03	(-)	42.04	12.39	12.33	(-)	29.71	..		114.19	(-)	29.65	..
			1971-72	287.09	(-)	48.30	14.66	14.34	(-)	33.96	..		150.03	(-)	33.64	..

Note: 1. 'Capital invested' represents paid-up capital plus long-term loans plus free reserves at the close of the year.

2. 'Capital employed' (except in the case of West Bengal Financial Corporation) represents net fixed assets (excluding works-in-progress) plus or minus working capital. In case of West Bengal Financial Corporation, 'capital employed' represents mean capital employed i.e. mean of aggregate of opening and closing balances of (i) paid-up capital, (ii) bonds and debentures, (iii) reserves, (iv) borrowings including refinance, and (v) deposits.

3. Return on capital employed in respect of West Bengal Financial Corporation has been worked out on mean figures for the year.

\*These represent contributions to General Reserve and Bond Redemption Fund.

ANNEXURE 'C'

(Reference : Paragraph 7.05 of section V, page 48)

Statement showing annual plant factor

	1972-73			1973-74			1974-75				
	Installed capacity (MW)	Genera- tion (MKwh)	Annual plant factor	Installed capacity (MW)	Genera- tion (MKwh)	Annual plant factor	Installed capacity (MW)	Genera- tion (MKwh)	Annual plant factor		
<b>Thermal stations</b>											
Bandel ..	350.00	1527.52	49.8	350.00	3066.0	1733.54	56.5	330.00*	2890.8	1376.66	47.6
Santalidih (commissioned in January 1974)	..	..	..	120.00	1051.2	32.70	..	120.00	1051.2	372.63	35.4
Gourepora ..	35.00	81.59	26.6	35.00	306.6	58.43	19.1	35.00	306.6	68.20	22.2
Dishergarh ..	..	..	..	7.00	61.3	2.30	3.8	6.00	52.6	3.67	7.0
Farakka ..	3.50	30.7	1.63	3.50	30.7	1.35	4.4	..	..	..	..
<b>Hydel stations</b>											
Jaldhaka ..	27.00	236.5	47.13	27.00	236.5	61.31	25.9	27.00	236.5	70.44	29.8
Bijanbari ..	0.30	2.6	0.93	0.30	2.6	0.08	3.0	0.30	2.6	0.03	1.2
Kurseong (Rinchington)	1.25	10.9	3.59	1.25	10.9	4.75	43.6	1.25	10.9	3.52	32.3
Little Rangit (commissioned in 1971-72)	2.00	17.5	3.34	2.00	17.5	4.62	28.4	2.00	17.5	7.49	42.8
Massanjore (taken over by the Board in April 1973)	..	..	..	4.00	35.0	12.70	36.3	4.00	35.0	15.55	44.4
Diesel stations ..	15.60	136.7	7.50	12.00	105.1	8.00	7.6	18.20	159.4	5.90	3.7

\*As intimated by the Board (February 1976)

ANNEXURE 'D1'

(Reference : Paragraph 7-09 of section V, page 52)

Performance of generating stations

	Bandel thermal power station		Santalidih thermal power station*		Gourepore power station			Dishergarh pack- aged plant**			Farakka pack- aged plant**			
	1972-73	1973-74	1974-75	1973-74	1974-75	1972-73	1973-74	1974-75	1973-74	1974-75	1972-73	1973-74	1972-73	1973-74
Installed capacity (MW)	..	350	350	120	120	35	35	35	7	6@	3.52	3.52	3.52	3.52
Derated capacity (MW)	..	320	320	120	120	24.50	27.50	27.50	6	6	3	3	3	3
Maximum demand (MW)	..	310	300	290	65	95	18	22	20	0.8	1.1	1.2	1.1	1.1
Total generation (MKwh)	..	1527.52	1733.54	1376.66	32.70	372.63	81.59	58.43	68.20	2.30	3.47	1.63	1.35	1.35
Auxiliary consumption (MKwh)	..	118.53	131.96	112.88	5.20	44.07	8.29	6.32	6.76	1.16	1.61	0.52	0.59	0.59
Unit sent out (MKwh) ..	..	1403.63	1597.43	1258.56	27.50	329.12	73.30	52.11	61.44	1.14	1.86	1.11	0.76	0.76
Percentage of auxiliary consumption to total generation		7.8	7.6	9.7	15.9	11.8	10.1	10.8	9.9	50.4	46.4	32.5	43.7	43.7
Average load (MW) ..	..	174.4	198.0	175.1	..	42.5	9.3	6.7	7.8	0.3	0.4	0.2	0.2	0.2
Plant load factor (per cent)	..	56.2	66.0	56.1	..	44.7	51.7	30.5	39.0	37.5	36.3	16.7	18.2	18.2

\*Commissioned on 1st January 1974

\*\*Remained closed during 1972-73

\*\*\*Closed on 31st March 1974

@As intimated by the Board (February 1976)

Note : Auxiliary consumption of Bandel thermal power station excludes free supply.

(contd.D<sub>1</sub>)

ANNEXURE 'D'

	Jaldhaka hydel project				Kurseong hydel station				Bijanbari and Little Rangit hydel power stations				Massenjore hydel power station*	
	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75	1973-74	1974-75
Installed capacity (MW) ..	27	27	27	1.248	1.248	1.248	2.3	2.3	2.3	2.3	2.3	4	4	
Derated capacity (MW) ..	27	27	27	1.150	1.150	1.150	2.3	2.3	2.3	2.3	2.3	4	4	
Maximum demand (MW) ..	9.4	15.6	17.7	1.0	1.2	1.1	1.4	1.4	2.2	2.2	2.0	4.8	4.8	
Total generation (MKwh) ..	47.13	61.31	70.44	3.59	4.75	3.52	4.27	4.70	7.52	7.52	12.70	16.55	16.55	
Auxiliary consumption (MKwh)	1.40	2.08	1.69	0.02	0.04	0.02	0.01	0.03	0.02	0.02	0.04	0.06	0.06	
Units sent out (MKwh) ..	45.73	59.23	68.75	3.57	4.71	3.50	4.36	4.67	7.50	7.50	12.66	15.49	15.49	
Percentage of auxiliary consumption to total generation	3.0	3.4	2.4	0.5	0.8	0.6	0.2	0.6	0.3	0.3	0.3	0.4	0.4	
Average load (MW) ..	5.4	7.0	8.0	0.4	0.5	0.4	0.5	0.5	0.9	0.9	1.4	1.8	1.8	
Plant load factor (per cent)	57.4	44.9	45.1	40.0	41.7	38.4	35.7	22.7	45.0	45.0	29.2	37.5	37.5	

\*Taken over by the Board in April 1973

(contd-D<sub>3</sub>)



ANNEXURE 'D,'

	Siliguri diesel station		Cooch Behar diesel station		Central diesel power station				
	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75	1972-73	1973-74	1974-75
Installed capacity (MW) ..	4.12	4.12	4.12	3.35	3.23	3.35	3.66	3.66	3.66
Derated capacity (MW) ..	3.55	3.55	3.23	2.57	2.28	2.28	1.54	1.65	1.69
Maximum demand (MW) ..	2.48	2.25	2.76	1.81	1.86	2.08	1.33	1.56	1.44
Total generation (MKwh) ..	2.25	1.13	1.51	1.14	0.71	1.02	2.19	4.60	1.8)
Auxiliary consumption (MKwh)	0.07	0.03	0.04	0.03	0.01	0.01	0.06	0.09	0.07
Units sent out (MKwh) ..	2.18	1.10	1.47	1.11	0.70	1.01	2.13	4.51	1.73
Percentage of auxiliary consumption to total generation	3.11	2.66	2.65	2.63	1.41	0.98	2.74	1.96	3.89
Average load(MW) ..	0.3	0.1	0.2	0.1	0.1	0.1	0.3	0.5	0.2
Plant load factor (per cent)	12.1	4.4	7.2	5.5	5.4	4.8	22.6	32.1	13.9

## ANNEXURE 'E'

(Reference : Paragraph 6.01 of section VI, page 94)

**Statement showing the position of long distance routes operated by the Calcutta State Transport Corporation as on 31st March 1975**

Routes	Date of inauguration	Route kilometres	Number of buses allotted	Number of trips	
				Up	Down
1. Calcutta-Digha ..	.. April 1968 ..	252	2	1	1
2. Calcutta-Keonjhar	.. April 1971 ..	372	3	1	1
3. Calcutta-Berhampore	.. January 1972 ..	200	2	1	1
4. Calcutta-Suri ..	.. August 1972 ..	242	2	1	1
5. Calcutta-Midnapore	.. August 1972 .. } .. December 1973 .. } .. July 1974 .. }	139	3	3	3
6. Calcutta-Haldia ..	.. October 1972 .. } .. November 1972 .. } .. March 1973 .. } .. July 1973 .. }	134	4	4	4
7. Calcutta-Purulia ..	.. July 1973 ..	308	2	1	1
8. Calcutta-Tarakeswar	.. August 1973 ..	65	1	2	2
9. Calcutta-Harinkhola	.. August 1973 ..	68	1	1	1
10. Calcutta-Karimpore	.. August 1973 .. } .. October 1973 .. }	192	2	2	2
11. Calcutta-Bankura	.. December 1974 ..	225	2	1	1
12. Calcutta-Rampurhat	.. November 1974 ..	300	2	1	1

(Out of the above routes, Calcutta-Keonjhar is an inter-State route covering the States of Orissa and a portion of Bihar).