

**Annual Report
on**

**The Working
of**

**State Electricity Boards
&
Electricity Departments**



**(Power & Energy Division)
Planning Commission
Government of India
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FOREWORD

This report is brought out every year by Power and Energy Division of the Planning Commission. The present report is the Thirteenth in the series that updates and analyses the data on the working of the State Electricity Boards in the country. Most of the data contained in this document has been obtained from the State Electricity Boards (SEBs) and Electricity Departments (EDs) of the States/UTs, in connection with the discussions held to estimate the financial resources for the Annual Plan 2000-01. A brief analysis covers the performance of the power utilities during the 8th Plan period and thereafter. Information for the earlier years is also provided in respect of some important parameters.

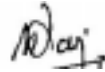
The Report comprises five chapters. In addition to this, Power Sector Performance at a Glance and Highlights of the sector have been given for the first time in this Report. Chapter 1 of the report presents an Overview of the Indian Electricity Sector indicating the major issues concerning power sector for the country as a whole. Chapter 2 focuses on the plan outlays and expenditure on power sector by the States/UTs. It also briefly gives the power balances from 1980-81 to 1998-99 and the relationship between electricity and GDP through elasticity. In Chapter 3, physical performance of the SEBs and EDs is reviewed. It covers details regarding installed capacity and its mix, generation, capacity utilisation, viz. plant load factor, forced outages, auxiliary consumption and other indicators like power purchased from other agencies, T&D losses, sales to consumers etc. Chapter 4 gives an analysis of important financial parameters such as cost of supply and its components, average tariff realized, average and consumer category-wise tariff realized and other indicators such as commercial profits and losses, subsidy provided to domestic and agricultural consumers and cross-subsidization from other consumers, rate of return on capital employed, net internal resources arrears, outstanding dues etc. for the SEBs and EDs. Chapter 5 gives details about the status of reforms in various States. Relevant annexures have been given at the end of each chapter.

In this report, an attempt has been made for the first time to estimate the state-wise breakup of gross/net operating surplus, depreciation, interest payable to the institutional creditors as well as State Government and the commercial losses for years 1996-97 to 2000-01 (Annexure 4.31). The Report, for the first time, also gives breakup of subsidy to agricultural and domestic consumers, subvention received from the State Government, surplus generated by way of cross-subsidization from other sectors and the uncovered subsidy for the years 1996-97 to 2000-01 (Annexure 4.38).

It may be noted that the information provided in the report is not always based on audited reports of the SEBs as the accounts of many SEBs are audited with a considerable time lag. In view of this, the information based on the un-audited accounts for certain years may undergo some modifications as and when the financial statements of the SEBs are audited and updated.

It has been the continuous endeavour of the Power and Energy Division to make this report more useful as a source of reference. Any suggestion for improvement in the content and presentation of this report is, therefore, welcome.

The report has been revised and updated by Shri I.A. Khan, Deputy Adviser (Power) and with the help of other officers of the Division under the guidance of Shri L.P. Sonkar, Joint Adviser (Power). Shri R.K. Kaul and Sh. B. Srinivasan have been helpful in updating the write-ups as well as the annexures. Ms. Varina has extended valuable assistance in updating most of the statistical tables as well as all the chapters. I am thankful to all of them. I would like to acknowledge the help and support provided by Ministry of Power, Central Electricity Authority and State Power Utilities and thank them for their help and cooperation.



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*New Delhi
25th June, 2001*

ACRONYMS

AEC	Ahmedabad Electric Company Limited	
APGPC	Andhra Pradesh Gas Power Corporation	
APGENCO	Andhra Pradesh Power Generation Corporation	
APTRANSCO	Andhra Pradesh Power Transmission Corporation	
BBMB	Bhakra Beas Management Board	
BKWH	Billion Kilowatt Hours = Terawatt Hours	
	BTPS	Badarpur Thermal Power Station
CESC	Calcutta Electric Supply Corporation Ltd.	
CEA	Central Electricity Authority	
DAE	Department of Atomic Energy	
DPL	Durgapur Projects Limited	
DVB	Delhi Vidyut Board	
DVC	Damodar Valley Corporation	
ED	Electricity Departments	
GIPCL	Gujarat Industrial Power Corporation Ltd.	
GRDICO	Grid Corporation of Orissa	
KPC	Karnataka Power Corporation	
KW	Kilowatt = 1000 Watts	
MKWH	Million Kilowatt Hours = Gigawatt Hours	
MW	Megawatt = 1000 KW	
NEEPCO	North Eastern Electric Power Corporation	
NHPC	National Hydro Electric Power Corporation	
NLC	Neyveli Lignite Corporation	
NTPC	National Thermal Power Corporation	
PLF	Plant Load Factor	
PSUs	Public Sector Undertakings	
RE	Revised Estimate/Rural Electrification	
R & M	Renovation & Modernisation	
ROR	Rate of return	
SEB	State Electricity Board	
SED	State Electricity Duty	
STPS	Super Thermal Power Station	
T & D	Transmission and Distribution	
TECO	Tata Electric Company	
UT	Union Territories	
WSBPDC	West Bengal Power Development Corporation	

DEFINITIONS

CAPACITY : Station Capacity as indicated by Central Electricity Authority.

GROSS OPERATING SURPLUS/DEFICIT : Operating surplus or deficit (Gross) before providing for depreciation and interest to the institutions and to the State Government i.e. Revenue Receipts less Revenue Expenditure.

RETAINED REVENUE SURPLUS/DEFICIT : Gross operating surplus minus depreciation minus interest to institutional creditors. If there is still surplus, then interest to State Government will be deducted to the extent of surplus available. If there is a deficit, then no interest to State Government is deducted.

INTERNAL RESOURCES : Retained revenue surplus or deficit plus depreciation and miscellaneous capital receipts minus repayment of loans.

OPERATING RATIO : Working expenses (including depreciation) as a proportion to revenue from sale of electricity.

COMMERCIAL PROFIT/LOSS : Net surplus/deficit i.e. gross operating surplus or deficit less depreciation, interest due to institutional creditors and to the State Governments, i.e. total revenue minus total cost.

ARM : Additional resources mobilised through tariff revision and in some cases revenue from fuel surcharge is also shown as ARM.

CAPITAL BASE : Original costs of fixed assets in service reduced by cumulative depreciation and consumer's contribution for service lines at the beginning of the year. *It is also known as net fixed assets at the beginning of the year.*

AVERAGE TARIFF : Average rate of realisation of revenue from sale of energy i.e. revenue from sale divided by units sold.

REVENUE RECEIPTS : Revenue from sale of energy plus miscellaneous revenue receipts, like subsidy/subvention and other receipts.

AVERAGE COST : Total cost i.e. revenue expenditure plus depreciation and interest due , divided by total electricity sold.

EFFECTIVE SUBSIDY : The amount actually lost by the SEBs on account of sale of electricity at less than average cost to a sector i.e average cost minus average tariff times the number of units sold to a given sector.

RATE OF RETURN : Ratio of commercial profits/losses to net fixed assets, expressed as percentage.

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POWER SECTOR PERFORMANCE AT A GLANCE

Ownership and Mode-wise Pattern of Installed Capacity (MW)As on 31-3-2001

Ownership/Mode	Hydel	Steam	Gas	Diesel	Wind	Nuclear	Total
State	22020.78	35817.00	2428.0	539.69	57.46	0.0	60862.93
Central	2644.00	20917.50	4449.0	0.00	0.0	2860.0	30870.50
Private	477.00	4291.38	3614.9	331.20	1212.17	0.0	9926.65
Total	25141.78	61025.88	10491.9	870.89	1269.63	2860.0	101660.08
% of Installed Capacity	24.73	60.03	10.32	0.86	1.25	2.81	100.0

Power Sector Plan Outlay and Expenditure

Plan Period	Outlays (Rs. Crore)		Col. 2 as % of Col. 3	Expenditure (Rs. Crore)		Col. 5 as % of Col. 6
	Power Sector	All Sectors		Power Sector	All Sectors	
1	2	3	4	5	6	7
Seventh Plan (1985-90)	34273.46	180000.00	19.04	37895.30	218729.60	17.33
Eighth Plan (1992-97)	79589.32	434100.00	18.33	76677.38	485457.17	15.79
Ninth Plan (1997-2002)	124526.00	859200.00	14.49	NA	NA	NA
Annual Plan (1997-98)	20830.51	155904.67	13.36	18736.56	139625.90	13.42
Annual Plan (1998-99)	25737.99	185907.47	13.84	21159.02	149403.46	14.16
Annual Plan (1999-2000)	26825.00	192262.89	13.95	21845.96	170856.80	12.79 (RE)
Annual Plan (2000-01)	26554.0	NA		NA	NA	NA

PHYSICAL PERFORMANCE (At the All-India Level)

Year	Plant Availability (%)	Plant Load Factor (%)	T&D Losses (%)
1996-97	79.0	64.4	24.53
1997-98	79.4	64.7	24.79
1998-99	78.7	64.6	25.0
1999-2000	80.3	67.3	23.7
2000-01	NA	69.0	23.0

FINANCIAL PERFORMANCE OF SEBS*s

Sr No		1996-97	1997-98	1998-99	1999-2000	2000-01
1.	Cost of Supply (Paise/Kwh)	215.60	239.70	262.50	283.80	303.80
2.	Average Tariff (Paise/Kwh)	165.30	180.30	185.50	199.00	212.00
3.	% of Recovery	76.70	75.21	70.70	70.10	69.80
4.	Average Agriculture Tariff (Paise/Kwh)	21.20	20.22	20.62	21.09	28.48
5.	Commercial Losses (with subsidy) (Rs. Crore)	-4674.31	-7597.95	-12396.77	-18226.11	-20220.50
6.	Commercial Losses (without subsidy) (Rs. Crore)	-11305.00	-13963.00	-19972.00	-23028.00	-26013.00
7.	Net Internal Resources (Rs. Crore)	-2090.70	-6209.00	-11401.70	-11531.60	-13092.50
8.	Subsidy for Domestic Consumers	4386.00	5258.40	6433.00	8671.00	10061.80
9.	Subsidy for Agricultural Consumers	15585.20	17706.67	20685.43	24598.77	27083.47
10.	Gross Subsidy* (Rs. Crore)	20209.96	23422.23	27672.09	33081.47	37037.11
11.	Subvention Received (Rs. Crore)	6630.60	6364.80	7574.80	4801.80	5792.80
12.	Uncovered Subsidy (Rs. Crore)	5800.41	8046.61	12255.85	20032.33	23638.35
13.	Gross Subsidy Per Unit of Sales (Paise/Kwh)	75.40	82.60	92.70	103.40	108.40

* Gross Subsidy includes subsidy for domestic consumers, agricultural consumers and on interstate sales.

HIGHLIGHTS

PHYSICAL

- The installed generation capacity of the utilities in the country as on March 2001 is 101660 MW, of which 59.9% is owned by the States, 30.4% by Centre and 9.7% is owned by the Private Sector.
- The share of hydro capacity is about 24.7%.
- Against the 9th Plan target of 40245 MW capacity addition, likely addition is expected to be 20892 MW, i.e., 51.9%.
- Capacity addition in the Central Sector would be 4964 MW i.e. 41.7% as against the target of 11909 MW.
- Capacity addition in the State Sector would be 9192 MW i.e. 85.5% as against the target of 10748 MW.
- Capacity addition in the Private Sector is expected to be 6735 MW, which is about 38.3% of the target of 17589 MW.
- Slippage in the case of hydro as well as thermal capacity would be about 49%.
- The capacity addition in Nuclear Power would be 880 MW as targeted.
- Plant Load Factor of Thermal Power Stations in the country has improved during Ninth Plan. It increased from a level of 64.4% in 1996-97 to 69% in 2000-01.
- The T&D losses increased from a level of 19.8% in 1992-93 to 25% in 1998-99. These losses are expected to decline to about 23% during 2000-01.
- The actual power supply position as on March 2001, as assessed by CEA, indicates a peak deficit of 13% and energy deficit of 7.8% at the All India Level as against a peak deficit of 18% and energy deficit of 11.5% during 1996-97.
- The per capita electricity consumption of the country was 360 Kwh during 1998-99 as against 334 in 1996-97. The per capita consumption in China during 1997 was 719 Kwh.

FINANCIAL

- Average tariff charged to the consumers has increased from a level of 165 paise in 1996-97 to 212 paise in 2000-01.
- The cost of supply has increased from a level of 215.6 paise in 1996-97 to 303.8 paise in 2000-01.
- *The gap between average cost of supply and average tariff has increased from a level of 28 paise/Kwh in 1991-92 to 92 paise/Kwh in 2000-01.*
- The recovery of cost of supply through tariff has declined from 76.7% in 1996-97 to 69.8% in 2000-01.
- The domestic and agricultural consumers continue to get power supplies at subsidized rates. The estimated tariff for domestic and agricultural consumers for the year 2000-01 is 173 paise and 28.5 paise respectively as against the average tariff of 212 paise/Kwh.
- *The tariff charged to agricultural consumers has increased marginally from a level of 12 paise/Kwh in 1991-92 to 28.5 paise/Kwh in 2000-01. And yet, this is much below the level of 50 Paise/Kwh minimum recommended by the Chief Ministers Conference.*
- In order to break even, the average tariff increase required during 2000-01 was about 93 paise/Kwh.
- Subsidy on account of energy sales to domestic consumers is likely to increase from a level of Rs. 4386 crore in 1996-97 to Rs. 10062 crore in 2000-01.
- Subsidy on account of sales to agricultural consumers is estimated to increase from a level of Rs. 15585 crore in 1996-97 to Rs. 27144 crore in 2000-01.
- Gross subsidy for domestic, agricultural and interstate sales has increased from a level of Rs. 20210 crore in 1996-97 to Rs. 37037 crore in 2000-01.
- Subvention given by the State Governments to partly compensate the subsidized sales to domestic and agricultural consumers is estimated at Rs. 5793 crore in 2000-01 as compared to Rs. 6630.60 crore in 1996-97.
- Uncovered subsidy, after taking into consideration the subvention received from State Government and surplus generated from sales to other consumers, is estimated at Rs. 23638.35 crore during 2000-01 as compared to Rs. 5800.41 crore in 1996-97.
- The estimated commercial losses of SEBs (without subsidy) during 2000-01 are Rs. 26013 crore as compared to Rs. 11305 crore during 1996-97. The commercial losses with subsidy for the above years are Rs. 20220.5 crore and Rs. 4674.31 crore respectively.
- The net internal resources of the SEBs continue to be negative. It was expected to be Rs. (-) 13092 crore in 2000-01 as compared to Rs. (-) 2090.7 crore in 1996-97.
- The share of domestic and agricultural consumers in the total energy sales has been increasing over the years. This share was about 52% in 2000-01 as against 49% in 1996-97.
- The share of industry in the total energy sales has declined from a level of more than 50% over the years. In 2000-01, it was 31% as against 33% in 1996-97.

POWER SECTOR REFORMS

- **Power Sector Reforms were expected to focus on two thrusts. One was rationalization of tariff structure through independent Electricity Regulatory Commissions. The second was the restructuring of Electricity Boards separating generation from transmission and distribution and to bring about greater efficiency in each area.**
- **The Electricity Regulatory Commission Act, 1998, which provides for a legal basis for setting up of a Commission at the Central level and a separate Commission at the State level, is in place.**
- **The Central Electricity Regulatory Commission (CERC) was constituted in July, 1998 and is in operation.**
- **State Electricity Regulatory Commissions (SERCs) have been set up in 15 States.**
- **The States of Andhra Pradesh, Orissa, Haryana, Karnataka, Rajasthan and U.P. have restructured their Electricity Boards.**

Chapter 1

AN OVERVIEW

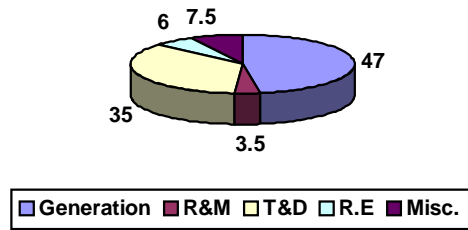
1.1 Introduction

This Chapter gives an overall view of the Report and highlights some of the important parameters and crucial issues relating to the power sector in the country. The subsequent chapters bring out detailed analysis of various issues and large variations in the performance of SEBs and EDs. Chapter 2 gives details of the plan outlays and expenditure in the power sector, distribution of power sector outlay between various activities viz. generation, transmission & distribution (T&D), renovation and modernisation etc. and also gives the power balances as well as the elasticity of electricity generation and consumption with respect to the GDP. In Chapter 3, physical performance of the SEBs and EDs is reviewed. It covers details regarding installed capacity and its mix, parameters regarding capacity utilisation viz. Plant load factor (PLF), forced outages, plant availability, auxiliary consumption and - other indicators like power purchased from other agencies, T&D losses, sales to consumers, etc. Chapter 4 gives a comprehensive account of parameters such as cost of supply and its components, average and consumer category-wise tariff realised and other financial indicators such as commercial profits and losses, gross subsidy, subvention received, cross subsidisation, uncovered subsidy, rate of return on capital employed, net internal resources, revenue arrears, outstanding dues etc. Chapter 5 gives details about status of reforms in various States.

1.2 Plan Outlay and its Composition

With the exception of the Second and the Third Five Year Plans, the share of electricity sector in the total plan outlay has been over 15% as indicated in Annexure 2.1. From the Fifth Five Year Plan till the Seventh Plan, this share has been around 19-20%. During the Eighth Plan the share has declined to 18.3%. In the Ninth Plan, the share of Power Sector outlay in percentage terms further declined to 14.49% of all sector outlay. As against this, the share of Power Sector outlay in the total outlay for Annual Plans 1997-98, 1998-99 and 1999-2000 has been 13.36%, 13.84% and 13.95% respectively. There is a need to allocate higher outlays to T&D system and renovation and modernisation (R&M) programmes. It has been observed that inadequate investments in the T&D system is one of the major reasons for poor quality of supply of electricity (voltage fluctuations and break-downs). Investments in renovation and modernisation (R&M) of existing generation plants have distinct cost advantage over investment in new generation capacity. Figure 1.1 gives the distribution of power sector outlay for major sub-activities viz. generation, transmission, etc. for the Ninth Five Year Plan period for the Power Sector as a whole. This includes provision for State Sector as well as Central Sector.

Figure 1.1
Composition of Power Sector Outlay - Ninth Plan



It is observed from Figure 1.1 that the share of outlay for generation in the total power sector outlay during the Ninth Plan is 47% as compared to 62% in Eighth Plan. Allocation for T&D schemes has been increased to 35% of the total Power Sector Outlay during Ninth Plan as compared to a provision of 28% during Eighth Plan period.

1.3 The Elasticity of Consumption of Electricity

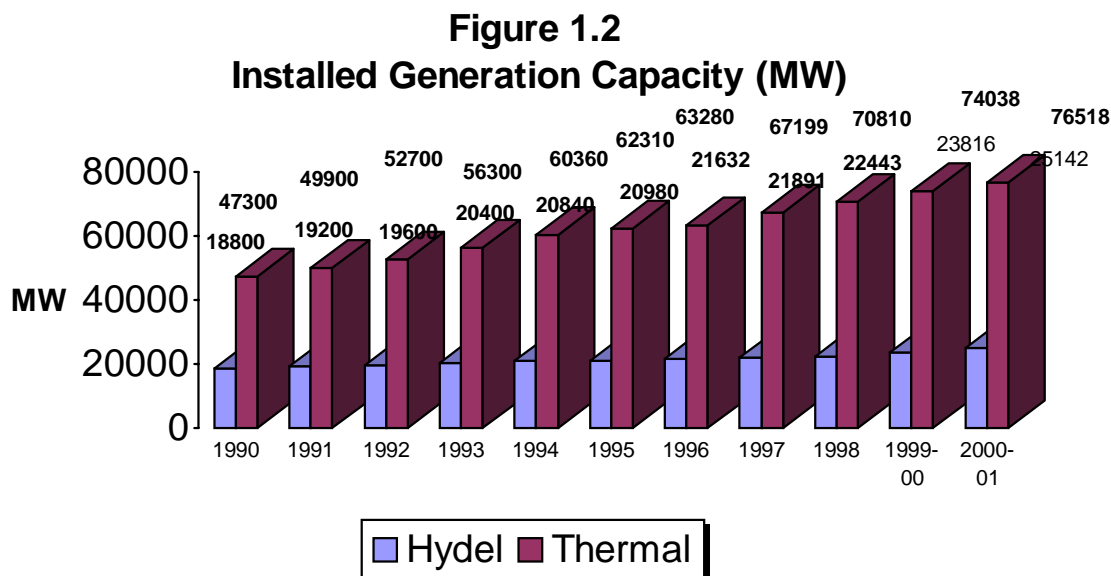
The elasticity of electricity consumption with respect to GDP for the period 1980-81 to 1998-99 works out to 1.41 (GDP figures are based on the new series estimates). This implies that an increase in GDP by 1% was accompanied by 1.41% increase in electricity consumption. If one looks at various Five Year Plans, the elasticity has declined from over 3 in the First and the Second Five Year Plans to nearly 1.5 during the Seventh Plan and further to 0.97 in Eighth Plan as can be seen from Table 1.1.

Table 1.1
Elasticity of Electricity
Consumption w.r.t. GDP

First Plan	3.14
Second Plan	3.38
Third Plan	5.04
Fourth Plan	1.85
Fifth Plan	1.88
Sixth Plan	1.39
Seventh Plan	1.50
Eighth Plan	0.97

1.4 Installed Capacity

The total installed generation capacity on 31st March, 2001 was 101660.1 MW. The share of hydel capacity was 24.73%, Steam 60.03%, Gas 10.32%, Nuclear 2.81% and the balance being diesel and wind. During the Eighth Plan (1992-93 to 1996-97), 16422.6 MW have been added to the installed capacity as against the target of 30538 MW i.e. the achievement has been only 53.8% of the target. The achievement in hydel sector has been only 26.1% of the target as

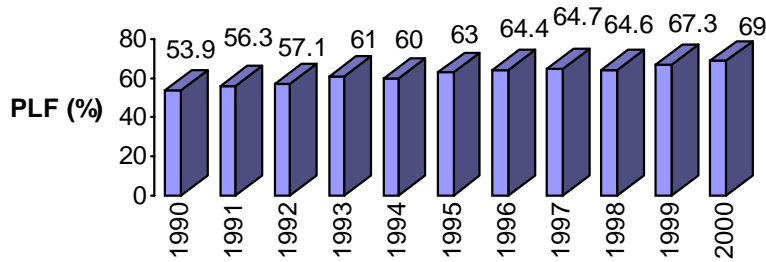


compared to 67.2% in thermal sector. The 9th Plan envisaged a capacity addition of 40245 MW. As against this the achievement in the first four years of the 9th Plan is 15751.7 MW. Figure 1.2 gives the installed capacity in power sector (thermal includes capacity from gas, diesel, wind and nuclear) from 1990-91 to 2000-01. Latest estimates indicate that the likely capacity addition during the Ninth Plan would be 20.892 MW.

1.5 Plant Load Factor

There has been a marked improvement in the All-India average PLF in recent years, particularly, in the State Sector, though considerable inter-State variations persist. Significant improvement in the PLF has been due to successful R&M programmes taken up by some of the states as well as addition of higher unit capacity thermal plants in the recent years. The PLF in Eastern and North Eastern regions has been consistently lower compared to Northern, Western and Southern regions. The low PLF in some cases could be attributed to inappropriate quality of coal, age and size of units, equipment deficiency and failure or backing down of the units due to low demand. Figure 1.3 gives the trend of PLF (all-India) from 1990-91 to 1999-2000. The PLF till about early 1990s remained in the range of 54-57%. It was only from 1993-94, that the PLF started showing a distinct improvement to above 60% performance level. It was 64.4% in 1996-97, 64.7% in 1997-98, 64.6% in 1998-99 and 67.3% in 1999-2000 and 69% in 2000-01. Figure 1.3 gives the PLF of Thermal Power Stations at the All India level.

Figure 1.3
Plant Load Factor (%) All-India



1.6 Transmission and Distribution Losses

The T&D losses are quite large in India compared to many other countries. In 1980-81, such losses accounted for nearly 20.6% of the total electricity available. These further increased to 21.8% in 1985-86 and to 23.3% in 1989-90. Since then, there was a decline and in 1992-93 it was 21.8%. However since 1995-96, the losses again started rising. The reforming states started reporting higher T&D losses after the restructuring of SEBs. It is stated that now the utilities are able to make realistic estimates of T&D losses in the power system, which were earlier partly camouflaged as agricultural consumption. The T&D losses for the years 1997-98, 1998-99 and 1999-2000 are reported to be 24.8%, 25% and 23.7% respectively. It may be noted here that the All India losses reported for the years 1992-93 to 1997-98 are as per the General Review carried out by the CEA and include the losses in the power system of the areas served by the DVC, UTs of Chandigarh, Dadra & Nagar Haveli, Daman & Diu and Lakshwadeep. The estimates for the years 1998-99, 1999-2000 and 2000-01 are based on the Resource Discussions for the year 2000-01. A significant proportion of these T&D losses is attributed to pilferage.

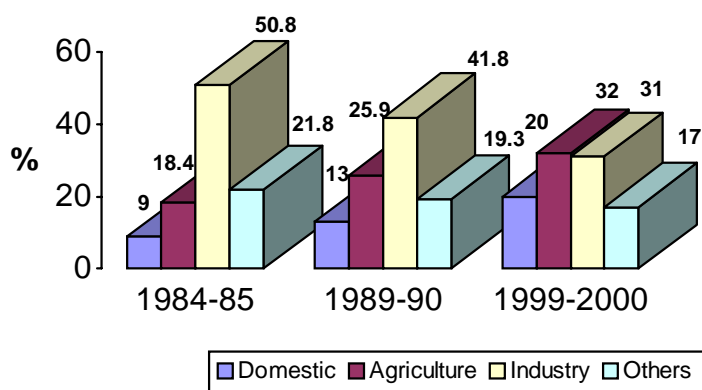
Notwithstanding the general improvement in the overall PLF in the country during the Eighth Plan and Ninth Plan period, the low level of PLF in a number of states and generally higher T&D losses obviously reflected sub-optimum utilisation of existing assets. An improvement in PLF and reduction in T&D losses would help in reducing the requirement for adding new power generation capacity.

1.7 Energy Sales

The pattern of sales to various sectors has undergone significant changes in the last few years. Figure 1.4 shows the sectoral consumption patterns for the years 1984-85, 1989-90 and 1999-2000 (RE). The share of domestic and agriculture sectors in the total sales increased from 27.4% in 1984-85 to nearly 52% in 1999-2000 while that of industry declined from over 50% to about 31% over the years. This has adversely affected the profitability of the SEBs because the tariff charged from agriculture and domestic sectors is lower than the cost of supply of electricity. The policy of the State Governments over the years to provide subsidized power supplies to domestic and agricultural consumers has been increasing the gap between average tariff and the cost of supply and resultantly, increased commercial losses of the SEBs, which cannot be sustained further.

The per capita electricity consumption increased from 178 Kwh in 1985-86 to 360 Kwh in 1998-99, i.e., an increase of about 96% in this period.

Figure 1.4
Sectoral Consumption of Electricity (%)



1.8 Power Supply Position

At the beginning of the Ninth Plan, the energy shortage was 11.5% and peak deficit was 18%. The actual power supply position as on March 2001 indicates energy deficit of 7.8% and peak deficit of 13% (Annexure 3.36). This improvement is partly due to a marked improvement in PLF of thermal plants as well as higher inter-regional transfer of power through National Grid, inspite of major shortfall in the capacity addition during the Ninth Plan period.

1.9 Average Cost

The average cost had increased from 42 paise per unit in 1980-81 to 109 paise per unit in 1990-91. In 2000-01, it is estimated to be 304 paise per unit. . The increase in cost of supply is mainly because of the escalation of prices of inputs like cost of power purchased, fuel cost, establishment and administration cost and the interest cost. However, the maximum increase is in power purchase component and the establishment and administration cost. The Power purchase cost has increased from 36 paise/kwh (28%) in 1992-93 to around 141 paise/kwh (45.6%) in 2000-01 (Annexure 4.6). The increase in establishment and administration cost is due to the implementation of recommendations of Fifth Pay Commission and has increased from a level of about 20 paise per unit in 1992-93 to about 41 paise per unit in 2000-01. There are wide inter-State variations. The details can be seen in Chapter 4.

1.10 Average Tariff

The average tariff has increased from 32 paise/Kwh in 1980-81 to about 82 paise/Kwh in 1990-91 and further to 199 paise/Kwh in 1999-2000 (RE). It is estimated to be 212 paise/Kwh during 2000-01. The ratio of tariff to cost was 77% in 1980-81. The gap between the average tariff charged to the consumers and the average cost of supply has been increasing over the years. This gap was 11 paise/Kwh in 1984-85 and is estimated to increase to 92 paise/Kwh in 2000-01. This is mainly because of the reason that the increase in the consumer base in the past one decade

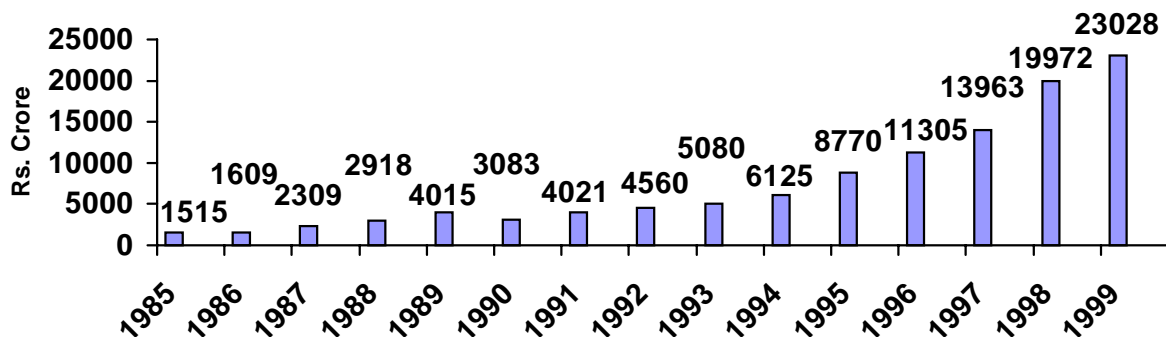
has been in the domestic and agriculture sector. Tariff charged for these consumers is at subsidized rates and well below the cost of supply and estimated to be 173 paise/Kwh for domestic consumers and 29 paise/Kwh for agriculture consumers for the year 2000-01. As against this, the industrial sector on an average is likely to pay 410 paise/Kwh. This has resulted in disproportionately lower contribution by agriculture and domestic sectors to the revenue of SEBs vis-a-vis the sales by the SEBs to these two sectors. The agriculture sector accounted for only 3-4% of total sales revenue of the SEBs as against around 31% of its share in total sales. The domestic sector accounted for 11-17% share in sales revenue as against 16-20% of its share in total sales of the SEBs. This resulted in the escalation in the commercial losses of the SEBs, as the cross subsidies and the subsidies provided by the State Governments are not sufficient to make up for the losses on account of sales to agriculture and domestic sectors besides pushing up cost of industrial production.

15 states have set up their respective State Electricity Regulatory Commissions. The SERCs of Orissa, Haryana, Andhra Pradesh, Gujarat, Karnataka, Uttar Pradesh and Rajasthan have already issued tariff orders. These tariff orders have been helpful in rationalizing the tariff structure as well as improving the revenue realization in the respective states to some extent. However, the tariff as well as cost estimates of the present report is based on the resource discussions for the Annual Plan 2000-01 and takes into consideration only two tariff orders of Orissa SERC and first tariff order of APSERC.

1.11 Commercial Losses

The commercial loss of a SEB/ED is the gap between the total revenue receivables and total expenditure in a given year. The total revenue includes subvention given by the State Government in lieu of subsidized power supplies to domestic and agricultural sectors and total expenditure includes payments towards depreciation and interest payable to the State Government as well as financial institutions. The commercial losses (without subsidy) of the SEBs increased from Rs.4560 crore in 1992-93 to Rs.18226.11 crore in 1999-2000 (RE). These are projected to increase to Rs. 20220.25 crore in 2000-01 (AP). The details of the individual SEBs can be seen in Annexure 4.31.

Figure 1.5
Annual Commercial Losses of the SEBs (Rs. Crore)



1.12 Subsidy

Gross Subsidy on agriculture, domestic and inter-state sales has increased from a level of Rs. 7449 crore in 1991-92 to Rs. 37037.11 crore in 2000-01 (AP). The gross subsidy per unit (Kwh) of energy sold during 2000-01 works out to 108 paise. While some State Governments partly compensate the SEBs for the subsidized sales of electricity to agricultural and domestic sectors others do not provide any compensation at all. The 2000-01 Annual Plan Proposals indicate the likely subvention from State Governments as Rs. 5792.80 crore. The SEBs make an effort to recover the losses due to the subsidized power supply to domestic and agriculture consumers by way of cross subsidization mainly to the industrial and commercial consumers. It is estimated that the surpluses generated by way of cross subsidization for the year 2000-01 are Rs. 7606 crore.

1.13 Rate of Return

The trend showing SEB's rate of return (without subsidy) in the last 5 years is presented below.

Year	ROR (%)
1992-93	(-)12.7
1993-94	(-)12.3
1994-95	(-)13.1
1995-96	(-)16.4
1996-97	(-)19.6
1997-98	(-)22.9
1998-99	(-)30.8
1999-2000 (RE)	(-)33.8
2000-01 (AP)	(-)35.1

It is estimated that for the year 2000-01 in order to break even/achieve a ROR of 3%, as stipulated in the Indian Electricity Supply Act (1948), the SEBs would have to raise the average tariff by 92 paise and 99 paise per KWh respectively.

It is evident from the above that the high levels of commercial losses and the negative rates of return inspite of higher PLF of 69% are mainly on account of absence of rational tariff structure, whereby large subsidies are provided to certain sectors, without corresponding recovery from other sectors. Reduction in T&D losses, auxiliary losses as well as in secondary oil consumption, provide further avenues for improvement. The unsatisfactory and deteriorating financial health of the State Electricity Boards has acted as a constraint not only for adding new capacity, improving the transmission and distribution system, carrying out renovation and modernisation programmes, but also for carrying out much needed reforms in the electricity utilities. One of the main hurdles to private sector participation gaining momentum is the perceived reservations about the capacity of SEBs to pay for power in view of their generally poor financial performance. The process of the reforms has already been initiated in some States. The states of Orissa, Haryana, Rajasthan, U.P., Karnataka and Andhra Pradesh have already gone for restructuring and reforms and unbundled the SEBs. Details about status of reforms in various states are given in Chapter 5.

CHAPTER 2

POWER SECTOR OUTLAY AND GENERAL ISSUES

2.1 Introduction

This chapter reviews the investment pattern in terms of plan outlays and actual expenditure by the power utilities, particularly State Electricity Boards (SEBs), and the Electricity Departments (EDs). Power balances are presented from 1980-81 to 1998-99. The elasticities of electricity generation and consumption with respect to GDP have also been worked out for the period 1980-81 to 1998-99. The Chapter also indicates pattern of investment for various activities in the Sector like Generation, T&D, R&M, RE and other schemes.

2.2 Power Sector Plan Outlay and Expenditure

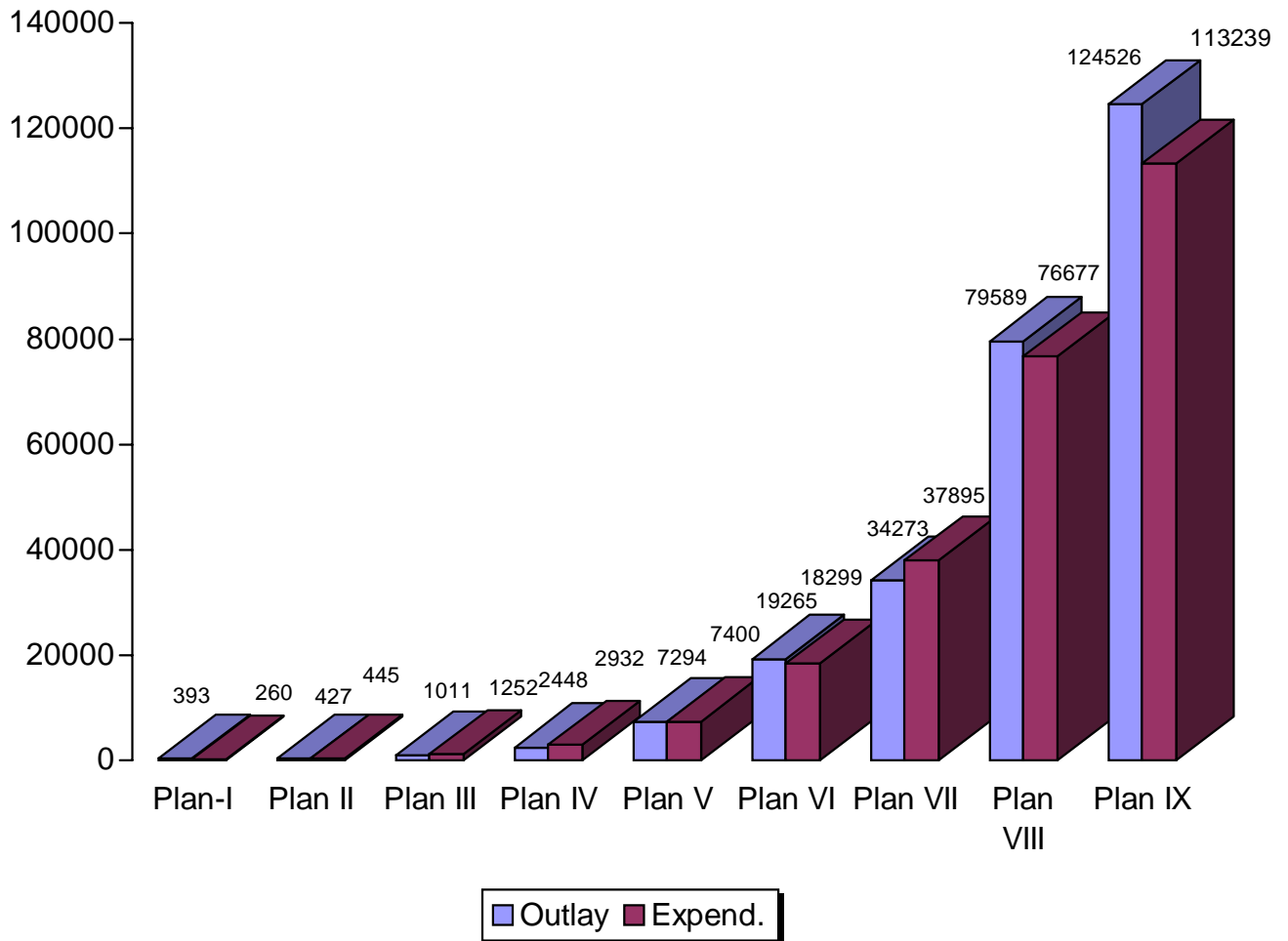
Annexure 2.1 gives the outlays and expenditure in the power sector and the total outlay and expenditure since the First Five Year Plan for the country as a whole. The State-wise expenditure for Seventh and Eighth Plan is given in Annexure-2.2 and 2.3. Annexure-2.4 indicates plan allocations for Power Sector for the Ninth Plan as well as the first Four Years of the Ninth Plan. Annexures 2.5 to 2.11 indicate the share of Power Sector Outlay in total All Sector Outlay as well as the pattern of investment for Generation, T&D, R&M, RE and miscellaneous schemes for all the States and UTs.

2.2.1 Plan-wise Trends

In the First Five Year Plan (1951-56), 19.02% of the total Plan outlay was provided for the power sector. Even though, the power sector outlay has steadily increased since then in absolute terms, its percentage share in the all sector outlay declined until the Fifth Five Year Plan (1974-79). Thereafter, the share of power sector outlay in the total Plan outlay again increased to 19.09% in the Annual Plan (1979-80), 20.13% in the 6th Plan, 19.09% in the 7th Plan, 19.28% in the Annual Plan 1990-91, 18.91% in the Annual Plan 1991-92 and 18.33% in the 8th Plan. As against this, the actual expenditure from First Plan to Eighth Plan has been in the range of 13-21%. For example, the power sector expenditure for the Eighth Plan is 15.79% of Total Plan Expenditure as against a provision of 18.33%.

In the Ninth Plan, the Power Sector outlay accounted for 14.49% of the total Plan outlay. As against this, the share of power sector outlay in the total outlay for the Annual Plans 1997-98, 1998-99 and 1999-2000 is 13.36%, 13.84% and 13.95% respectively. This may be partly due to the policy of the Government to encourage private sector participation in the development of Power Sector. However, a wide inter-State variation can be observed in the allocation of outlays to the Power Sector by various states. Figure 2.1 indicates plan-wise outlay and expenditure from First Plan to Ninth Plan.

**Fig. 2.1 Plan-wise Outlay & Expenditure
Power Sector (Rs. Crore)**



2.2.2 Share of Power Sector in Total Plan Outlay

Table 2.1 shows the relative share of power sector in total outlay both at the All India and the State levels from 1990-91 to 1999-2000.

Table 2.1

Share of Power Sector Outlay in Total Plan Outlay		
Plan Period	All India	States
1990-91	18.91	31.55
1991-92	18.33	26.09
1992-93	18.50	27.19
1993-94	17.15	26.24
1994-95	16.45	23.77
1995-96	15.26	23.48
1996-97	13.38	19.14
9 th Plan	14.49	19.26
1997-98	13.36	19.30
1998-99	13.85	18.50
1999-2000	13.95	17.57

There has been a gradual decline in the share of power sector in the total Plan outlay since 1992-93. The share was 18.5% in 1992-93 and it declined to 13.95% in 1999-2000. The share of power sector in the total outlays by the States declined from 27.2% in 1992-93 to 17.57% in 1999-2000. This has been partly due to the dependence of some of the states on the private sector projects initially. Subsequently, the budget allocation to the SEBs from State Governments have started declining and the SEBs started borrowing from the PFC and other financial institutions. However, there are wide inter-State as well as yearly variations in the allocation of outlays to the power sector. For example, in 1999-2000, the share of power sector in total outlay was over 30% in Orissa and West Bengal. On the other hand, the share of power sector in total outlay was only 2.8% in Nagaland, 2.9% in Bihar, 6.3% in Manipur and Tripura. State-wise details are given in Annexure 2.4.

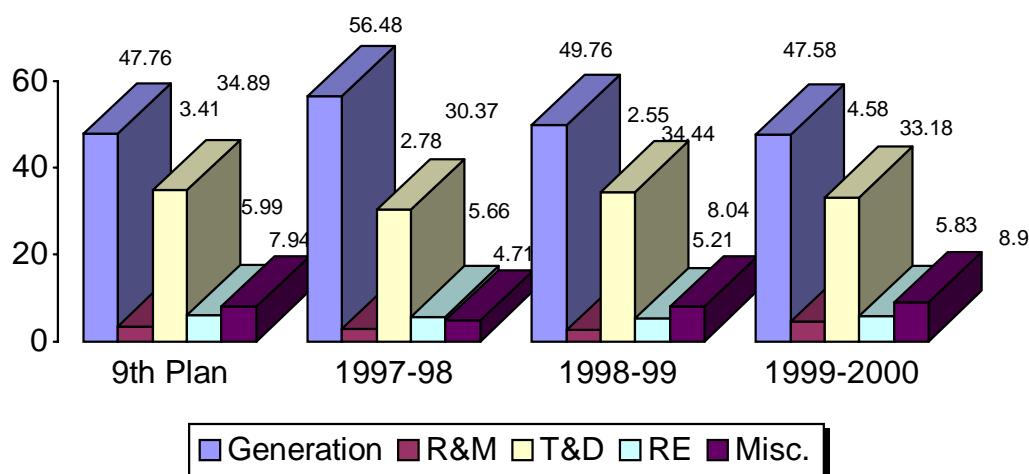
2.3 Activity wise Distribution of Power Sector Outlay

Table 2.2 gives activity-wise distribution of power sector outlays in the 8th Plan, Ninth Plan and Annual Plans 1997-98, 1998-99 and 1999-2000. Figure 2.2 gives a graphical view of distribution of power sector outlay in these years.

Table 2.2

Activity	8th Plan (1992-97)	9th Plan (1997-2002)	1997-98	1998-99	1999-2000
Generation	62.0	47.76	56.48	49.76	47.58
R&M	2.0	3.42	2.78	2.55	4.58
T&D	28.0	34.89	30.37	34.44	33.18
R.E.	5.0	5.99	5.66	5.21	5.83
Misc.	3.0	7.94	4.71	8.04	8.90

Figure 2.2 - Distribution of Power Sector Outlay (%)



The outlay on the generation component in the total power sector outlay used to be much higher than the corresponding share in R&M and T&D components. However, there has been some change in this trend during the Ninth Plan. Generation component, which was about 69% in 1992-93 declined to 47.6% in 1999-2000 and correspondingly the outlay on T&D increased to 33% as compared to 22.5% in 1992-93. State-wise details are given in Annexures 2.6 to 2.11. Investments on T&D schemes, however, continue to be lower in some states than what is considered desirable from the operational point of view. This is one of the major reasons that has resulted in high T&D losses and poor quality of electricity supply to the consumers in almost all States. These operational deficiencies have also adversely affected the financial position of the SEBs.

2.4 Power Balance

The total quantum of electricity available for sale with a state utility is its own generation net of auxiliary consumption plus net purchase minus T&D losses. Table below gives the position (power balance) from 1980-81 to 1998-99 for the utilities in the country.

It is observed that the auxiliary consumption has varied between 6.5% and 7.3% during this period. It was highest in 1987-88 and thereafter has improved marginally. In 1998-99, it has been around 7.28% of the gross generation. T&D losses are higher than the desirable levels. In 1998-99, T&D losses have been around 25% as against 21.8% in 1992-93.

Table 2.3

Power Balance						
Year	Gross Generation (MKwh)	Auxiliary Consumption (MKwh)	Net Generation (MKwh)	Purchase From Outside *(MKwh)	T&D Losses (MKwh)	Total Consumption (MKwh)
1980-81	110844	7230	103614	78	21325	82367
1981-82	122101	8288	113813	30	23598	90245
1982-83	130624	9029	121235	-2	25644	95589
1983-84	140177	10142	130035	-2	27689	102344
1984-85	156859	11650	145209	73	31214	114068
1985-86	170350	13157	157193	1	34195	122999
1986-87	187714	14324	173390	346	38144	135592
1987-88	202093	16317	185776	2067	42230	145613
1988-89	221396	17363	204033	2196	46033	160196
1989-90	245438	18674	226764	1915	53260	175419
1990-91	264329	19603	244726	2153	56522	190357
1991-92	287029	21011	266018	3066	61439	207645
1992-93	301362	22060	279302	2937	61565	220674
1993-94	324050	23670	300380	3200	65010	238570
1994-95	350490	24795	325695	3560	69569	259686
1995-96	379877	27221	352657	3785	79363	277079
1996-97	395889	28804	367085	1493	91105	277473
1997-98	421747	30684	391063	3926	97919	297070
1998-99	448563	32521	416042	4323	107693	312672

* Purchases from Bhutan + Nepal

2.5 Elasticity of Electricity Generation and Consumption w.r.t. GDP

Table 2.4 gives the plan-wise elasticity of electricity generation and consumption with respect to GDP from First Plan to Eighth Plan.

Table 2.4
Elasticity of Electricity Generation and Consumption w.r.t. GDP

	Generation	Consumption
First Plan	3.06	3.14
Second Plan	3.45	3.38
Third Plan	5.11	5.04
Fourth Plan	2.15	1.85
7Fifth Plan	1.88	1.88
Sixth Plan	1.47	1.39
Seventh Plan	1.57	1.50
Eighth Plan	1.02	0.97

The elasticity of electricity generation and its consumption for the period 1950-51 to 1998-99 is 2.24 and 2.15 respectively. The elasticity of electricity generation and consumption with respect to GDP for the period 1980-81 to 1998-99 works out to 1.46 and 1.41 respectively. This demonstrates that elasticity of electricity generation and consumption vis-a-vis GDP has declined over time after an increase till the Third Plan. It implies that if the GDP increased by 1%, electricity generation and consumption increased by 1.46% and 1.41% respectively, during this period.

It is seen from the analysis above that the share of power sector in the total outlay declined during the Eighth Plan and subsequent years of Ninth Plan. However, the physical performance of SEBs has improved significantly, aided to a great extent by an improvement in the PLF in the Central as well as into State sectors. This along with some of the other physical parameters is considered in the next Chapter.

PLANWISE OUTLAYS AND EXPENDITURE FOR POWER SECTOR

Plan Period		Power Sector	All Sectors	as % of Col.3	Power Sector	All Sectors	as % of Col.6
1		2	3	4	5	6	7
First Plan	(1951-56)	393.4	2068.8	19.0	260.0	1960.0	13.3
Second Plan	(1956-61)	426.9	4800.0	8.9	445.5	4600.0	9.7
Third Plan	(1961-66)	1019.7	8094.5	12.6	1252.3	8576.5	14.6
Annual Plan	(1966-69)	1064.0	6665.0	16.0	1212.5	6625.4	18.3
Fourth Plan	(1969-74)	2447.6	15902.2	15.4	2931.7	15778.9	18.6
Fifth Plan	(1974-79)	7293.9	39287.5	18.6	7399.5	39426.2	18.8
Annual plan	(1979-80)	2396.0	12549.6	19.1	2240.5	12176.5	18.4
Sixth Plan	(1980-85)	19265.4	95700.0	20.1	18298.7	109291.4	16.7
Seventh Plan	(1985-90)	34273.5	180000.0	19.0	37895.3	218729.6	17.3
Annual Plan	(1990-91)	12479.6	64716.9	19.3	13147.5	61421.0	21.4
Annual Plan	(1991-92)	13678.3	72316.8	18.9	12463.3	64953.0	19.2
Eighth Plan	(1992-97)	79589.3	434100.0	18.3	76677.4	485457.2	15.8
Annual Plan	(1992-93)	14943.9	80772.0	18.5	12396.7	72852.4	17.0
Annual Plan	(1993-94)	16668.5	100120.2	16.6	14521.6	88080.7	16.5
Annual Plan	(1994-95)	18445.5	112197.1	16.4	16310.2	98167.3	16.6
Annual Plan	(1995-96)	19622.4	128590.0	15.3	16511.4	107380.4	15.4
Annual Plan	(1996-97)	19084.5	146106.7	13.1	16937.5	118976.4	14.2
Annual Plan	(1997-98)	20830.5	155904.7	13.4	19396.3	129757.3	14.9
Annual Plan	(1998-99)	25738.0	185907.5	13.8	21159.0	149403.5	14.2
Annual Plan	(1999-2000)	26825.0	192262.9	14.0	21268.2	170856.8	12.4 (RE)
Annual Plan	(2000-01)	26554.4	203359.3	13.1	24199.7	187930.9	12.9 (RE)

**POWER SECTOR OUTLAY AND EXPENDITURE
(SEVENTH PLAN, 1985-90)**

	Power Sector			All Sectors			Col.(2) as % of col.(5)	Col. (3) as % of col.(6)
	Outlay (Rs.cr.)	Expendi- ture (Rs.cr.)	Col.(3) as % of col.(2)	Outlay (Rs.cr.)	Expendi- ture (Rs.cr.)	Col.(6) as % of col.(5)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I. SEBs								
1 Andhra Pradesh	1104.9	1117.4	101.1	5200.0	6043.6	116.2	21.3	18.49
2 Assam	485.0	610.2	125.8	2100.0	2489.6	118.6	23.1	24.51
3 Bihar	1065.0	1057.1	99.3	5100.0	6033.2	118.3	20.9	17.52
4 Delhi	364.3	832.2	228.4	2000.0	2631.5	131.6	18.2	31.62
5 Gujarat	1437.0	1437.8	100.1	6000.0	5439.2	90.7	24.0	26.43
6 Haryana	1010.3	645.4	63.9	2900.0	2538.9	87.6	34.8	25.42
7 Himachal Pradesh	260.1	347.5	133.6	1050.0	1326.3	126.3	24.8	26.2
8 Jammu & Kashmir	278.2	422.1	151.7	1400.0	2006.2	143.3	19.9	21.04
9 Karnataka	800.0	873.6	109.2	3500.0	3937.5	112.5	22.9	22.19
10 Kerala	396.8	373.2	94.0	2100.0	2299.2	109.5	18.9	16.23
11 Madhya Pradesh	2646.0	2091.0	79.0	7000.0	6574.3	93.9	37.8	31.81
12 Maharashtra	3048.9	2621.2	86.0	10500.0	10026.3	95.5	29.0	26.14
13 Meghalaya	70.0	122.0	174.2	440.0	539.0	122.5	15.9	22.62
14 Orissa	780.0	537.3	68.9	2700.0	3162.2	117.1	28.9	16.99
15 Punjab	1638.0	1991.1	121.6	3285.0	3547.2	108.0	49.9	56.13
16 Rajasthan	874.2	917.4	105.0	3000.0	3106.2	103.5	29.1	29.54
17 Tamil Nadu	2000.0	1768.2	88.4	5750.0	6236.2	108.5	34.8	28.35
18 Uttar Pradesh	3395.0	2763.1	81.4	10447.0	11268.9	107.9	32.5	24.52
19 West Bengal	1248.0	1244.9	99.8	4125.0	4463.8	108.2	30.3	27.89
II. EDs								
1 Arunachal Pradesh	35.9	54.3	151.3	400.0	570.0	142.5	9.0	9.53
2 Goa	35.5	33.0	93.0	360.0	438.6	121.8	9.9	7.51
3 Manipur	36.0	50.2	139.5	430.0	501.2	116.6	8.4	10.01
4 Mizoram	27.8	62.2	223.7	260.0	363.9	140.0	10.7	17.09
5 Nagaland	33.5	28.6	85.3	400.0	467.8	117.0	8.4	6.1
6 Pondicherry	12.0	24.0	199.8	170.0	232.6	136.8	7.1	10.31
7 Sikkim	33.9	58.7	172.9	230.0	282.4	122.8	14.8	20.78
8 Tripura	46.0	79.7	173.3	440.0	700.2	159.1	10.5	11.39

POWER SECTOR OUTLAY AND ACTUAL EXPENDITURE

(Rs.Crores)

1	Power Sector		Col (3)	All	Sector		Col (2)	Col (3)
	----- Outlay	----- Expenditure	as % of col (2)	----- Outlay	----- Expenditure	as % of col (5)	as % of col (5)	as % of col (6)
2	3	4	5	6	7	8	9	
1 Andhra Pradesh	3040.6	3546.6	116.6	10500.0	13433.3	127.9	29.0	26.4
2 Assam	1192.5	677.8	56.8	4662.0	4866.1	104.4	25.6	13.9
3 Bihar	2120.8	586.2	27.6	13000.0	5408.2	41.6	16.3	10.8
4 Delhi	1212.0	1540.5	127.1	4500.0	6200.8	137.8	26.9	24.8
5 Gujarat	2635.0	2502.6	95.0	11500.0	11550.7	100.4	22.9	21.7
6 Haryana	1702.0	1197.7	70.4	5700.0	4889.9	85.8	29.9	24.5
7 Himachal Pradesh	500.0	628.8	125.8	2502.0	3497.7	139.8	20.0	18.0
8 Jammu & Kashmir	1175.2	1240.2	105.5	4000.0	4403.6	110.1	29.4	28.2
9 Karnataka	3024.9	2957.6	97.8	12300.0	15155.5	123.2	24.6	19.5
10 Kerala	1226.2	1616.6	131.8	5460.0	6952.0	127.3	22.5	23.3
11 Madhya Pradesh	3563.4	3701.0	103.9	11100.0	12217.9	110.1	32.1	30.3
12 Maharashtra	4572.6	5493.5	120.1	18520.0	25336.1	136.8	24.7	21.7
13 Meghalaya	166.5	52.9	31.8	1029.0	1069.8	104.0	16.2	4.9
14 Orissa	2638.3	1254.7	47.6	10000.0	6998.0	70.0	26.4	17.9
15 Punjab	2417.5	3347.0	138.4	6570.0	6830.8	104.0	36.8	49.0
16 Rajasthan	3200.0	3078.7	96.2	11500.0	11859.6	103.1	27.8	26.0
17 Tamil Nadu	3000.0	3103.5	103.4	10200.0	14023.2	137.5	29.4	22.1
18 Uttar Pradesh	6974.8	5423.4	77.8	21000.0	20394.0	97.1	33.2	26.6
19 West Bengal	3016.0	2865.5	95.0	9760.0	8368.5	85.7	30.9	34.2
II.EDs								
2 Goa	52.5	65.3	124.4	761.0	843.4	110.8	6.9	7.7
3 Manipur	185.4	184.7	99.6	979.0	1219.5	124.6	18.9	15.1
4 Mizoram	101.1	152.3	150.7	763.0	1061.8	139.2	13.2	14.3
5 Nagaland	59.0	93.7	158.8	844.0	825.9	97.8	7.0	11.3
6 Pondicherry	102.2	160.1	156.6	400.0	698.7	174.7	25.6	22.9
7 Sikkim	133.0	131.8	99.1	550.0	707.7	128.7	24.2	18.6
8 Tripura	116.5	159.6	137.0	1130.0	1376.8	121.8	10.3	11.6
9 A&N Islands	58.0	68.9	118.9	685.0	892.1	130.2	8.5	7.7
12 Dadra & N' Haveli	5.1	19.4	378.9	80.0	126.7	158.4	6.4	15.3
13 Lakshadweep	6.2	6.6	106.7	120.0	140.2	116.8	5.2	4.7
Total States & Uts	48407.7	46251.0	95.5	186235.0	193592.8	104.0	26.0	23.9
Central Sector	31181.6	30426.4	97.6	247865.0	288930.1	116.6	12.6	10.5
Total- All India	79589.3	76677.4	96.3	434100.0	485457.2	111.8	18.3	15.8

POWER SECTOR OUTLAY FOR NINTH PLAN AND ANNUAL PLANS

(Rs. crore)

	Agreed Outlay		-----		-----		-----		-----	
	Power Sector	All Sector	Power Sector	All Sector	Power Sector	All Sector	Power Sector	All Sector	Power Sector	All Sector
1	2	3	4	5	6	7	8	9	10	11
I.SEBs										
2 Assam	850.00	8983.93	162.00	1510.28	162.00	1650.00	175.54	1750.00	92.84	1520.00
3 Bihar	2300.00	16680.00	103.30	2268.42	373.00	3768.74	106.00	3630.00	102.38	3100.00
4 Delhi	2985.00	15541.28	298.00	2073.00	443.50	2700.00	475.00	3000.00	812.55	3300.00
5 Gujarat	4000.00	28000.00	620.78	4509.62	808.75	5450.00	806.00	6550.00	830.00	7600.00
6 Haryana	2648.00	9310.00	287.40	1576.04	505.00	2260.00	500.00	2300.00	484.00	1920.00
7 Himachal Pra.	1019.65	5700.00	164.92	1008.00	218.28	1440.00	245.69	1600.00	140.37	1382.00
8 Jammu & Kashmir	2387.00	9500.00	393.84	1551.81	336.38	1900.00	309.05	1750.00	307.57	1753.00
9 Karnataka	3650.00	23400.00	608.09	4153.59	866.19	5353.00	988.99	5800.00	754.00	7250.00
10 Kerala	2531.00	16100.00	627.00	2851.10	650.00	3100.00	635.00	3250.00	602.50	3317.00
11 Madhya Pradesh	3463.81	20075.00	638.32	3718.15	660.41	3700.00	890.69	4004.00	262.71	3295.58
12 Maharashtra	5579.82	36700.00	1457.49	8393.19	1418.14	11600.73	1684.13	12162.00	1767.35	11500.00
13 Meghalaya	312.00	2500.62	91.66	382.00	56.11	400.00	77.11	465.00	18.20	480.00
14 Orissa	4622.79	15000.00	604.60	2529.46	870.42	3084.43	1034.47	3309.17	742.65	2665.00
15 Punjab	2927.27	11500.00	784.00	2100.01	828.00	2500.00	620.00	2680.00	622.37	2420.00
16 Rajasthan	4488.89	22000.00	702.24	3514.42	782.23	4300.00	841.94	4750.00	993.66	4146.00
17 Tamil Nadu	6000.00	25000.00	870.39	4004.90	903.41	4500.00	1033.98	5250.00	1034.21	5700.00
18 Uttar Pradesh	7468.15	46340.00	1803.22	7246.57	2155.51	10260.00	1941.67	11400.00	1474.50	9025.00
19 West Bengal	5631.98	16900.00	1253.95	3907.62	1576.30	4594.85	2009.60	5787.00	879.33	4026.59
1 Arunachal Pradesh	451.00	3569.89	96.50	600.00	73.23	625.00	72.01	665.00	81.83	640.00
3 Manipur	333.00	2426.39	43.00	410.00	29.00	425.00	30.00	475.00	33.60	451.00
4 Mizoram	221.59	1618.51	35.60	290.00	40.16	333.00	48.32	360.00	45.32	401.26
5 Nagaland	115.00	2006.43	21.20	291.00	15.00	300.00	8.80	315.00	15.57	326.00
6 Pondicherry	229.50	1300.00	45.20	219.85	25.75	241.00	21.33	312.00	21.33	312.00
7 Sikkim	341.00	1600.00	30.88	220.00	38.55	237.00	42.10	250.00	31.76	250.00
8 Tripura	171.79	2577.39	28.66	439.91	33.43	440.00	29.84	475.00	15.81	485.00
10 A&N Islands	140.00	1535.00	15.37	261.84	26.82	320.00	30.00	400.00	36.00	415.78
11 Chandigarh	85.90	685.00	14.50	116.87	11.93	137.76	13.18	151.39	11.03	149.20
14 Lakshadweep	15.01	270.00	2.16	45.78	2.22	54.54	2.30	57.97	2.30	64.04
Total States & Uts	70925.67	373839.44	12751.65	64065.96	14840.58	80720.31	15594.09	88741.96	14943.53	86025.55
@	71227.00	366979.00								
Central Sector	53299.41	492221.00	8078.86	91838.71	10905.46	105187.16	11230.91	103520.93	11610.83	117333.80
Total- All India	124526.41	859200.00	20830.51	155904.67	25746.04	185907.47	26825.00	192262.89	26554.36	203359.35

SHARE OF POWER SECTOR OUTLAY IN TOTAL OUTLAY

(Ninth Plan & Annual Plans)

	9th Plan	1997-98	1998-99	1999-2000	2000-01
I. States					
1 Andhra Pradesh	22.86	25.63	19.26	15.84	39.90
2 Assam	9.46	10.73	9.82	10.03	6.11
3 Bihar	13.79	4.55	9.90	2.92	2.30
5 Gujarat	14.29	13.77	14.84	12.31	10.70
6 Haryana	28.45	18.24	22.35	21.74	20.49
7 Himachal Pradesh	17.89	16.36	15.16	15.36	15.17
8 Jammu & Kashmir	25.13	25.38	17.70	17.66	17.55
9 Karnataka	15.60	14.64	16.18	17.05	13.63
10 Kerala	15.72	21.99	20.97	19.54	20.24
11 Madhya Pradesh	17.25	17.17	17.85	22.25	7.96
12 Maharashtra	15.20	17.37	12.19	13.85	15.37
13 Meghalaya	12.48	23.99	14.03	16.58	6.52
14 Orissa	30.82	23.90	28.22	31.26	21.13
15 Punjab	25.45	37.33	33.12	23.13	27.59
16 Rajasthan	20.40	19.98	18.19	17.73	25.56
17 Tamil Nadu	24.00	21.73	20.08	19.69	19.61
18 Uttar Pradesh	16.12	24.88	21.01	17.03	11.48
19 West Bengal	33.33	32.09	34.31	34.73	21.84
II.EDs					
1 Arunachal Pradesh	12.63	16.08	11.72	10.83	14.23
2 Goa	8.60	8.62	4.81	10.79	8.65
4 Mizoram	13.69	12.28	12.06	13.42	12.23
6 Pondicherry	17.23	20.56	10.68	6.84	6.50
7 Sikkim	21.31	14.04	16.27	16.84	12.70
8 Tripura	6.67	6.51	7.60	6.28	4.08
9 A&N Islands	9.12	5.87	8.38	7.50	8.66
10 Chandigarh	12.54	12.41	8.66	8.71	7.39
11 Daman & Diu	18.01	15.78	23.69	35.75	33.80
12 Dadra & Nagar Haveli	23.64	15.92	18.44	21.96	26.31
13 Lakshadweep	5.56	4.72	4.07	3.96	2.51
Central Sector	10.89	8.80	10.36	10.85	9.90
Total- All India	14.39	13.36	13.84	13.95	13.09

OUTLAY ON RENOVATION AND

(Rs. Crores)

	1992-97	1992-93	1993-94	1994-95	1995-96	1997-98	1998-99	1999-2000
	(8th Plan)							
I. SEBs								
1 Andhra Pradesh	38.67	3.87	3.64	7.80	6.46	11.79	20.08	123.03
3 Bihar	160.27	22.95	56.99	39.20	94.91	15.76	137.90	50.00
4 Delhi	13.40	5.82	6.20	6.00	6.50	3.00	20.00	9.74
5 Gujarat	16.51	2.93	4.60	3.68	12.25	12.61	11.90	81.63
6 Haryana	54.04	24.34	24.34	22.50	18.50	48.25	29.58	29.58
7 Himachal Pradesh	2.00	0.40	0.40	0.70	0.75	1.00	1.00	1.00
8 Jammu & Kashmir	24.60	5.00	3.20	7.40	4.61	11.25	5.25	1.76
9 Karnataka	116.20	16.40	24.11	15.49	15.75	57.92	16.24	44.30
10 Kerala	58.55	8.30	1.00	5.00	7.00	44.00	10.00	10.00
11 Madhya Pradesh	37.01	22.01	11.59	55.00	27.25	42.50	11.47	56.40
12 Maharashtra	183.50	39.00	22.50	65.00	15.00	28.13	17.47	158.00
13 Meghalaya	6.00	2.00	8.00	10.00	0.00	47.75	11.20	20.00
14 Orissa	89.71	14.00	5.75	7.50	6.00	7.20	14.00	29.50
15 Punjab	62.68	17.20	18.00	8.00	8.00	0.00	24.00	18.97
16 Rajasthan	5.81	16.12	2.50	3.75	9.12	11.94	0.00	2.36
17 Tamil Nadu	73.30	8.18	10.07	19.76	21.14	21.73	50.48	81.35
18 Uttar Pradesh	300.00	90.00	75.00	56.75	134.99	165.20	165.00	158.63
19 West Bengal	34.19	8.35	13.35	18.13	8.37	1.19	45.20	90.00
II.EDs								
2 Goa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 Mizoram	3.00	1.00	1.00	1.00	1.75	0.90	0.00	1.00
5 Nagaland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00
6 Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7 Sikkim	0.00	0.00	0.00	0.00	1.50	3.00	6.60	9.80
8 Tripura	10.20	4.50	5.00	2.60	4.10	4.50	0.00	0.00

OUTLAY ON TRANSMISSION AND DISTRIBUTION

(Rs. Crores)

	1992-97	1992-93	1993-94 (8th Plan)	1994-95	1995-96	1997-98	1998-99	1999-2000
SEBs								
1 Andhra Pradesh	1000.00	168.00	192.74	160.00	160.00	354.75	467.69	399.28
2 Assam	355.09	67.77	48.98	83.15	67.95	50.00	60.00	59.74
3 Bihar	460.00	121.97	120.35	134.01	104.00	38.72	156.73	16.00
5 Gujarat	1100.00	200.00	289.00	255.04	280.36	374.69	560.00	501.37
6 Haryana	783.00	81.00	124.27	50.83	126.30	148.33	386.60	381.60
7 Himachal Pradesh	120.00	30.00	36.70	55.40	35.00	36.17	38.40	38.40
8 Jammu & Kashmir	450.00	95.00	94.76	102.04	125.05	162.78	165.72	81.99
9 Karnataka	973.00	159.00	263.26	211.66	232.00	162.41	248.12	258.97
10 Kerala	693.00	105.00	139.30	200.00	179.00	335.68	286.35	286.35
11 Madhya Pradesh	1300.00	265.00	262.00	262.00	304.00	209.80	198.33	352.80
12 Maharashtra	1530.00	250.00	246.25	383.85	397.71	500.00	504.25	609.94
13 Meghalaya	61.11	14.12	20.85	21.00	21.59	11.84	7.60	7.60
14 Orissa	620.00	75.92	71.88	120.31	126.79	149.08	332.96	659.90
15 Punjab	939.00	172.00	150.00	78.00	100.00	110.00	300.00	314.00
16 Rajasthan	972.11	129.00	164.30	203.41	279.15	239.83	321.33	321.62
17 Tamil Nadu	1383.60	170.00	160.00	198.60	239.65	416.12	466.28	529.49
18 Uttar Pradesh	2800.00	257.72	437.30	770.87	1063.85	715.81	1060.20	971.00
19 West Bengal	900.00	93.50	52.00	66.34	100.00	267.48	163.00	342.73
EDs								
1 Arunachal Pradesh	68.00	10.00	13.80	17.00	29.50	21.30	3.12	30.00
2 Goa	46.06	9.28	11.60	16.74	16.50	18.73	13.80	29.40
4 Mizoram	43.00	11.41	8.35	6.03	9.31	17.30	22.62	25.36
6 Pondicherry	38.22	10.70	12.90	17.15	23.91	15.69	13.20	18.07
7 Sikkim	40.00	6.00	6.00	10.00	10.50	11.66	12.45	15.51
8 Tripura	40.00	7.50	7.50	4.95	14.83	14.66	20.43	20.00

**DISTRIBUTION OF POWER SECTOR OUTLAY
(1997-98)**

	Generation	R&M	T&D	Misc.	R.E
SEBs					
1 Andhra Pradesh	57.72	1.28	38.66	0.15	2.18
2 Assam	25.68	24.69	30.86	0.25	18.52
3 Bihar	26.62	15.26	37.48	3.78	16.86
5 Gujarat	33.81	2.03	60.36	0.09	3.72
6 Haryana	20.57	16.79	51.61	3.72	7.31
7 Himachal Pradesh	61.61	0.61	21.93	2.49	13.37
8 Jammu & Kashmir	46.43	2.86	41.33	3.79	5.59
9 Karnataka	53.57	9.52	26.71	5.10	5.10
10 Kerala	26.61	7.02	53.54	0.88	11.96
11 Madhya Pradesh	49.50	6.66	32.87	0.29	10.68
12 Maharashtra	53.23	1.93	34.31	1.37	9.16
13 Meghalaya	4.27	52.09	12.92	1.36	29.36
14 Orissa	47.97	1.19	24.66	18.08	8.11
15 Punjab	82.14	0.00	14.03	3.83	0.00
16 Rajasthan	49.85	1.70	34.15	1.05	13.24
17 Tamil Nadu	46.06	2.50	47.81	0.78	2.85
18 Uttar Pradesh	26.25	9.16	39.70	0.68	24.21
19 West Bengal	76.65	0.09	21.33	0.56	1.36
Average of SEBs	47.44	4.61	36.80	2.18	8.97
EDs					
2 Goa	0.05	0.00	94.22	5.23	0.50
4 Mizoram	37.22	2.53	48.60	7.44	4.21
5 Nagaland	84.91	0.00	15.09	0.00	0.00
6 Pondicherry	64.93	0.00	34.71	0.35	0.00
7 Sikkim	34.72	9.72	37.76	9.72	8.10
8 Tripura	9.77	15.70	51.15	2.44	20.94
9 Chandigarh	0.00	0.00	100.00	0.00	0.00
10 Dadra & N'Haveli	0.00	0.00	100.00	0.00	0.00
11 Daman & Diu	0.00	0.00	100.00	0.00	0.00
Average of UTs	31.61	2.45	45.86	9.99	10.08
Average of States and U.T.s	46.99	4.55	37.06	2.40	9.01
All India Average	56.48	2.78	30.37	4.71	5.66

**DISTRIBUTION OF POWER SECTOR OUTLAY
(1998-99)**

	Generation	R&M	T&D	Misc.	R.E.
SEBs					
1 Andhra Pradesh	43.02	2.23	51.89	0.09	2.77
2 Assam	23.46	36.42	37.04	0.62	2.47
3 Bihar	21.01	36.97	42.02	0.00	0.00
5 Gujarat	24.70	1.47	69.24	0.28	4.31
6 Haryana	13.63	5.86	76.55	0.00	3.96
7 Himachal Pradesh	67.52	0.46	17.59	2.34	12.09
8 Jammu & Kashmir	40.65	1.56	49.27	1.99	6.54
9 Karnataka	59.06	1.87	28.64	2.63	7.80
10 Kerala	36.13	1.57	45.09	0.35	16.85
11 Madhya Pradesh	49.68	1.74	30.03	0.09	18.47
12 Maharashtra	53.50	1.23	35.56	1.89	7.83
13 Meghalaya	17.82	19.96	13.54	0.71	47.96
14 Orissa	24.98	1.61	38.25	29.18	5.98
15 Punjab	54.41	2.90	36.23	2.84	3.62
16 Rajasthan	44.86	0.00	41.08	0.00	14.06
17 Tamil Nadu	35.51	5.59	51.61	0.93	6.36
18 Uttar Pradesh	28.88	7.65	49.19	0.20	14.08
19 West Bengal	78.81	2.87	10.34	0.37	7.61
Average of SEBs	42.24	4.48	42.21	2.52	8.56
EDs					
2 Goa	0.71	0.00	98.57	0.71	0.00
4 Mizoram	32.45	0.00	56.32	7.50	3.74
5 Nagaland	73.33	0.00	22.87	0.47	3.33
6 Pondicherry	38.84	0.00	51.27	9.90	0.00
7 Sikkim	37.46	17.12	32.30	7.47	5.65
8 Tripura	20.94	0.00	61.11	2.99	14.96
9 Chandigarh	0.00	0.00	100.00	0.00	0.00
10 Dadra & N'Haveli	0.00	0.00	100.00	0.00	0.00
11 Daman & Diu	0.00	0.00	100.00	0.00	0.00
Average of E.Ds	27.99	2.03	45.56	17.46	6.96
Average of States & UTs	41.92	4.43	42.28	2.85	8.52
All India Average	49.76	2.55	34.44	8.04	5.21

**DISTRIBUTION OF POWER SECTOR OUTLAY
(1999-2000)**

	Generation	R&M	T&D	Misc.	R.E.
SEBs					
1 Andhra Pradesh	31.65	14.18	46.00	0.45	7.72
2 Assam	21.76	39.51	34.03	1.85	2.85
3 Bihar	4.72	47.17	15.09	0.00	33.02
5 Gujarat	21.42	10.13	62.20	0.83	5.42
6 Haryana	13.76	5.92	76.32	0.00	4.00
7 Himachal Pradesh	71.14	0.41	15.63	2.08	10.75
8 Jammu & Kashmir	64.15	0.57	26.53	2.04	6.71
9 Karnataka	60.87	4.48	26.19	2.01	6.45
10 Kerala	36.13	1.57	45.09	0.35	16.85
11 Madhya Pradesh	44.59	6.33	39.61	0.21	9.26
12 Maharashtra	45.60	9.38	36.22	1.78	7.02
13 Meghalaya	28.79	25.94	9.86	0.52	34.90
14 Orissa	21.33	2.85	63.79	5.10	6.92
15 Punjab	36.29	3.06	50.65	5.17	4.84
16 Rajasthan	48.96	0.28	38.20	0.21	12.35
17 Tamil Nadu	36.74	7.87	51.21	0.82	3.37
18 Uttar Pradesh	25.87	8.17	50.01	0.18	15.77
19 West Bengal	70.48	4.48	17.05	1.27	6.72
Average of SEBs	41.13	6.79	42.21	1.34	8.52
EDs					
2 Goa	0.33	0.00	96.93	2.08	0.66
4 Mizoram	25.05	2.06	52.48	8.71	11.69
5 Nagaland	26.14	56.82	0.00	1.59	15.45
6 Pondicherry	8.86	0.00	84.24	6.91	0.00
7 Sikkim	28.46	23.28	36.84	7.86	3.56
8 Tripura	16.76	0.00	67.02	3.35	12.87
9 Chandigarh	0.00	0.00	100.00	0.00	0.00
10 Dadra & N'Haveli	0.00	0.00	100.00	0.00	0.00
11 Daman & Diu	0.00	0.00	100.00	0.00	0.00
Average of EDs	20.74	4.49	55.23	4.77	14.76
Average of States & EDs	40.67	6.74	42.50	1.42	8.66
Central Sector	57.18	1.57	20.24	19.28	1.91
All India Average	47.58	4.58	33.18	8.90	5.83

DISTRIBUTION OF POWER SECTOR OUTLAY
Ninth Plan (1997-2002)

	Generation	R&M	T&D	Misc.	R.E.
SEBs					
1 Andhra Pradesh	34.53	0.52	60.82	0.13	4.00
2 Assam	23.50	18.24	45.30	0.76	12.20
3 Bihar	32.07	0.00	39.13	16.19	12.61
5 Gujarat	19.73	11.40	65.06	0.23	3.58
6 Haryana	29.45	16.50	45.63	0.64	7.78
7 Himachal Pradesh	76.74	0.16	10.79	1.77	10.54
8 Jammu & Kashmir	47.16	3.19	41.89	1.47	6.28
9 Karnataka	52.92	2.64	28.60	3.32	12.51
10 Kerala	25.17	15.73	54.76	1.38	2.96
11 Madhya Pradesh	37.13	5.99	46.15	1.34	9.40
12 Maharashtra	53.14	1.79	35.24	1.46	8.38
13 Meghalaya	22.76	24.81	24.39	1.60	26.44
14 Orissa	31.86	3.16	44.10	11.52	9.36
15 Punjab	40.48	2.56	52.00	1.20	3.76
16 Rajasthan	20.78	0.32	56.96	0.56	21.39
17 Tamil Nadu	43.05	14.45	40.33	0.55	1.63
18 Uttar Pradesh	15.42	3.95	53.13	0.37	27.13
19 West Bengal	75.19	0.65	16.56	0.00	7.60
Average of SEBs	38.13	5.05	44.97	2.13	9.73
EDs					
2 Goa	1.72	0.00	94.52	3.76	0.00
4 Mizoram	34.46	1.90	53.04	7.90	2.71
5 Nagaland	63.13	0.00	36.82	0.05	0.00
6 Pondicherry	23.66	0.00	74.39	1.95	0.00
7 Sikkim	41.38	9.02	28.98	10.06	10.56
8 Tripura	36.38	0.00	44.32	2.04	17.26
9 Chandigarh	0.00	0.00	100.00	0.00	0.00
10 Dadra & N'Haveli	0.00	0.00	100.00	0.00	0.00
11 Daman & Diu	0.00	0.00	100.00	0.00	0.00
Average of EDs	28.76	1.57	40.68	4.55	4.85
Average of States & EDs	38.34	5.01	45.44	1.50	9.70
Central Sector	60.34	1.28	20.79	16.55	1.04
All India Average	47.76	3.41	34.89	7.94	5.99

CHAPTER 3 PHYSICAL PERFORMANCE

3.1 Introduction

This Chapter reviews the physical performance of the electricity sector in the country, particularly that of the SEBs and the EDs. The parameters considered here are, installed capacity, addition to installed capacity, plant availability and capacity utilisation (PLF), generation and sales, auxiliary consumption, T&D losses, power purchased from other agencies, sector-wise sales of electricity, per capita consumption, progress in rural electrification, etc.

3.2 Capacity Mix and Capacity Utilisation

Annexures 3.1 to 3.19 give details of installed capacity, capacity addition, unit size-wise distribution of thermal capacity, plant availability, forced outages and plant load factor (PLF) of the thermal units.

3.2.1 Installed Generation Capacity

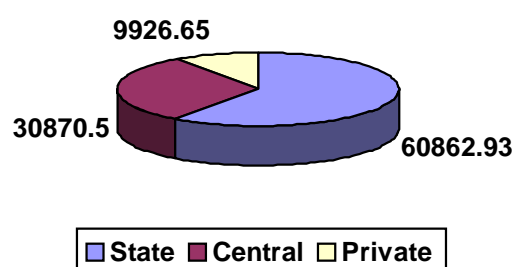
The total installed capacity of the electricity supply undertakings in the country increased from 93253 MW at the end of March, 1999 to 101660.1 MW as on 31st March, 2001. Out of the total installed capacity, 24.73% was hydel, 71.2% thermal (including steam, gas and Diesel), 1.25% wind and the balance 2.81% nuclear. Table 3.1 shows the position regarding ownership and mix of installed capacity. Out of the total installed generation capacity, 59.87% is owned by the States, 30.37% by the Centre and 9.76% by the private sector as shown in Figure 3.1.

Table 3.1
Ownership and Mode-wise Pattern of Installed Capacity (MW)

As on 31-3-2001

Ownership/Mode	Hydel	Steam	Gas	Diesel	Wind	Nuclear	Total
State	22020.78	35817.00	2428.0	539.69	57.46	0.0	60862.93
Central	2644.00	20917.50	4449.0	0.00	0.0	2860.0	30870.50
Private	477.00	4291.38	3614.9	331.20	1212.17	0.0	9926.65
Total	25141.78	61025.88	10491.9	870.89	1269.63	2860.0	101660.08
% of Installed Capacity	24.73	60.03	10.32	0.86	1.25	2.81	100.0

Figure 3.1
Ownership-wise Pattern of Installed Capacity as on March 2001



3.2.2 Capacity Addition

As against the target of addition of 30538 MW during the Eighth Plan, the addition to the capacity during this period was 16422.4 MW i.e. the achievement has been only 53.8% of the target. The average capacity addition achieved during 8th Plan works out to 3284.5 MW per annum as against the target of 6107.6 MW. About 14.8% of the total capacity addition in the Eighth Plan is accounted for by the hydel stations and the remaining by thermal units (including nuclear). Nearly, 51% of the addition in the capacity took place in the Central Sector, 41.2% in

Table 3.2
Addition to Installed Capacity (MW)

	8 th Plan Target	8 th Plan Actual	9 th Plan Target	1997-98 Actual	1998-99 Actual	1999-2000 Actual	2000-01 Actual
I. Mode-wise							
Hydel	9282	2427.6	9819.7	233.0	542.5	1371.5	1215.0
Thermal	20156	13554.8	29545.5	2993.5	3699.5	2696.0	2120.7
Nuclear	1100	440.0	880.0	0.0	0.0	440.0	440.0
Total	30538	16422.4	40245.2	3226.5	4242.0	4507.5	3775.7
II. Ownership							
State	14780	6773.0	10747.7	1676.0	1675.4	2329.1	2297.0
Central	12858	8387.0	11909.0	333.0	991.6	1615.4	659.0
Private	2810	1262.4	17588.5	1217.5	1575.0	563.0	819.7
Total	30538	16422.4	40245.2	3226.5	4242.0	4507.5	3775.7

the State Sector and the rest in the private sector. The Central sector has achieved 65.2% of the Eighth Plan target. The corresponding figures for the State and private sectors are 45.8% and 45% respectively. It is obvious that the actual achievements have fallen well short of target in all the sectors.

The Ninth Plan envisages a capacity addition of 40245.2 MW, which comprises 24.4% of

hydro capacity and the balance 75.6 thermal capacity addition including nuclear power. The expected contribution from State sector, Central sector and Private sector was 26.7%, 29.6% and 43.7% respectively. The Ninth Plan capacity addition programme of 40245 MW included 17588.5 MW capacity addition from private sector, which was quite significant. However, the latest estimates of the Ministry of Power indicate that likely capacity addition during the 9th Plan could be around 20891.6 MW (51.9%), which comprise of 4964 MW from Central Sector, 9192.4 MW from State Sector and 6735.2 MW from Private Sector. Likely achievement from Central, State and Private sectors as compared to their targets is 41.7%, 85.5% and 38.3% respectively. Table 3.3 gives details of target (T), mid-term assessment (MT) and Latest assessment (LA) for the 9th Plan capacity addition programme. Thus major shortfall is in the Central Sector and Private Sector. Private sector projects have not come up as expected mainly because of the poor financial condition of the SEBs. The average capacity addition target per year works out to 8049 MW. As against this, the achievement during 1997-98, 1998-99, 1999-2000 and 2000-01 was 3226.5 MW, 4242 MW, 4507.5MW and 3775.6 MW respectively.

Table 3.3

Capacity Addition During the 9 th Plan - Target (T)/Mid Term (MT)/Likely Achievement (LA)												
(MW)												
	Centre			State			Private			Total		
	(T)	(MT)	(LA)	(T)	(MT)	(LA)	(T)	(MT)	(LA)	(T)	(MT)	(LA)
Thermal	7574	3294	3294	4933	4797	4942	1703	7387	6735	2954	15477	14971
Hydro	3455	2540	790	5815	5096	4251	550	316	0	9820	7952	5041
Nuclear	880	880	880	0	0	0	0	0	0	880	880	880
Total	11909	6714	4964	10748	9893	9192	1758	7703	6735	4024	24309	20892
							9			5		

3.2.3 Plant Availability and Capacity Utilisation (PLF)

The All-India plant availability of thermal units has varied between 72.8% and 79.4% during 1991-92 to 1999-2000 as indicated in Annexure 3.7. Table 3.4 gives the plant availability for 1991-92 to 1999-2000.

Table 3.4
Plant Availability

1991-92	72.8
1992-93	74.7
1993-94	78.0
1994-95	76.6
1995-96	77.8
1996-97	79.0
1997-98	79.4
1998-99	78.7
1999-2000	80.3

While the plant availability has improved from 73 to about 80% in 1999-2000, the average PLF of the thermal plants has shown a distinct improvement in this period. The average

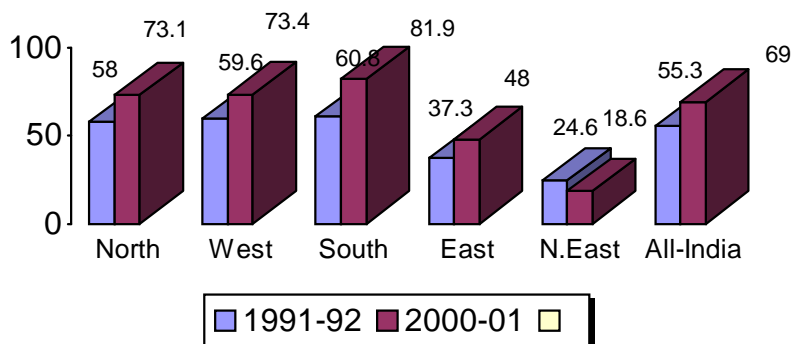
PLF increased from 55.3% in 1991-92 to 69% in 2000-01. This gap between the plant availability and plant load factor (PLF) indicates that though the thermal plants are available at 80% of the time, they are forced to back down in some of the states, particularly in eastern region during the off-peak hours due to lower demand. Efforts need to be made to address this issue and utilise the plants optimally. However, there are wide variations in the PLF in various States (State-wise details in Annexure 3.9). Table 3.5 gives the PLF for different regions and by ownership groups.

Table 3.5
PLF of Thermal Power Plants

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
I. Ownership									
State	54.1	56.6	55.0	58.1	60.3	60.9	60.7	63.7	65.6
Central	62.7	69.8	69.2	71.0	71.1	70.4	71.1	73.8	74.3
Private	58.8	57.0	65.8	72.3	71.2	71.2	68.0	68.9	73.0
II. Region									
Northern	62.0	63.9	59.1	62.1	64.8	66.7	67.2	70.9	73.1
Western	59.7	63.4	63.8	68.1	70.2	70.3	70.7	72.3	73.4
Southern	62.6	68.3	69.1	74.7	75.8	77.0	75.4	79.6	81.9
Eastern	39.8	44.8	43.7	42.7	42.2	43.0	44.1	46.1	48.0
N Eastern	24.3	19.9	26.8	28.6	27.1	21.3	18.8	18.2	18.6
All-India	57.1	61.0	60.0	63.0	64.4	64.7	64.6	67.3	69.0

It is clear from the above Table that while the average PLF for the Central and private sectors has been higher than that of the State sector, it is the State sector that has registered maximum improvement in the PLF since 1991-92. However, PLF of thermal stations in some states. Particularly Bihar, West Bengal, Delhi, Assam and Haryana continues to be less than the national average. Western and Southern regions generally continued to have higher PLF as compared to the All-India average. The Eastern and the North Eastern regions had much lower PLF. The Figure 3.2 illustrates the region-wise improvement in PLF from 1991-92 to 2000-01.

Figure 3.2
PLF of Thermal Plants(%)



3.3 Generation and Sales

Annexures 3.16 to 3.37 present a detailed account of generation, sales and related data in respect of the SEBs and EDs from 1992-93 to 1999-2000 and projections for 2000-01. Table 3.6 brings out some of the salient features on the basis of information from different SEBs and EDs in the country.

Table 3.6
Details of Generation and Sales of SEBs and EDs

	1996-97 (Actual)	1997-98 (Actual)	1998-99 (Prov.)	1999-2000 (RE)	2000-01
Gross Generation(Mkwh)	252016	240233	252009	262149	276034
Auxiliary Consumption(%)	6.56	7.14	7.03	7.27	7.24
Power Purchase(Mkwh)	166620	176342	198781	239130	255087
Net Availability at Busbar(Mkwh)	360509	376707	400823	424712	448381
T & D Losses(%)	24.6	24.0	25.0	23.7	23.0
Sales(Mkwh)	268031	283650	298671	319993	341794

As can be seen from Table 3.5, of the total electricity generated, nearly 30-32% is used for auxiliary consumption and lost in the T&D process. These T&D losses also include losses due to theft as well as commercial losses. It is stated that about 50-60% of energy sales is only metered. In the absence of adequate metering arrangements, **these figures have an implicit element of inaccuracy**. As a result of these losses, the SEBs and EDs are deprived of much needed revenue.

3.4 Auxiliary Consumption

The auxiliary consumption reported here is a weighted average of thermal and hydel plants for all the State sector. It has remained in the range of around 7-8% since 1994. The

auxiliary consumption in the State of Bihar, Orissa and West Bengal is higher than the national average. These are also the States where the share of coal based thermal generation in the total electricity generation is larger. State-wise details are given in Annexure 3.15.

3.5 Power Purchase

Details of power purchase in this report (Annexures 3.17 to 3.22) include total purchase from Central Sector and other sources, purchase as a percentage of total sales, purchase of power from Central sector as a percentage of total purchase and purchase from Central sector as percentage of total power availability. It can be observed that, states purchase power from Public sector undertakings (PSUs) in the Central sector, private generators (wherever such agencies exist) and from neighboring States. The purchase of power as a proportion of total sales of all the utilities taken together was 51% in 1992-93, 62.17% in 1997-98, 66.56 in 1998-99 and 74.73% in 1999-2000 (R.E) and estimated at 74.63% in 2000-01. The results are summarised in Table 3.7.

Table 3.7
Details of Purchase of Power

Year	Purchase as a percentage of Availability	Purchase from Central Sector as % of Total Purchase	
		Total Purchase	Total Availability
1992-93	38.7	77.1	29.5
1996-97	46.2	72.6	33.5
1997-98	46.8	74.4	34.8
1998-99	49.6	70.0	34.7
1999-2000 (RE)	56.3	61.2	34.5
2000-01 (AP)	56.9	59.6	33.9

All the SEBs and EDs purchase power from other sources to meet their total requirements. As can be seen from the Table above, the share of power purchased in total availability of power with the SEBs has increased over the years. It can be observed that nearly three-fourth of the electricity purchased by the SEBs and the EDs was from the Central PSUs till 1996-97. However, this trend has changed and since 1997-98 share of Central sector in the total purchases of SEBs and EDs has started declining. One of the reasons for this may be increase in generation from their own generating plants, improvement in PLF and to some extent due to the commissioning of private sector projects in few states.

3.6 T & D Losses

The T&D losses estimated in this report cover only the 19 SEBs and 8 EDs as indicated in Annexure 3.23 and 3.24. The estimates do not include losses of the areas served by the agencies like DVC in Bihar and West Bengal and small UTs of Chandigarh, Dadra & Nagar Haveli, Daman & Diu and Lakshdweep. Because of this the estimated losses may be less than the estimates of CEA. Nearly 100 billion Kwh of electricity was lost in Transmission & Distribution in various States in 1998-99. The T&D losses increased from 19.8% in 1992-93 to 25% in 1998-99. The revised estimates for 1999-2000 indicate these losses as 23.7% and are expected to

decline to 23% in 2000-01. The reforming states started reporting higher T&D losses after the restructuring of SEBs. For example the T&D losses in Orissa before the restructuring of OSEB (1994-95) were 24% and increased to a level of 50% after the unbundling of OSEB (1996-97). Similarly, other reforming states viz. Andhra Pradesh, Haryana and Rajasthan have also reported higher T&D losses after the start of reform process. This is mainly due to the realistic assessment of T&D losses in the power system, which were earlier partly camouflaged as agricultural consumption.

There are considerable inter-State variations. Delhi and J&K has the highest T&D losses in the country with 47% followed by, Assam and Andhra Pradesh at 38% and 32% respectively in 1998-99. On the other hand, the losses in Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Punjab and Tamil Nadu are lower than the All India average.

3.7 Electricity Sales

The sales of electricity increased from 213 Bkwh in 1992-93 to 303.65 Bkwh in 1998-99 (R.E) representing annual growth rate of 6.6%. Table 3.8 shows the share of various categories of consumers in total sales by the SEBs and EDs from 1992-93 to 2000-01.

Table 3.8
Consumer Category-wise Sales of Electricity (%)

Category	1992-93	1996-97	1997-98	1998-99	1999-2000	2000-01
Domestic	16.4	18.1	18.6	19.7	20.2	21.0
Commercial	4.0	5.1	4.7	4.6	4.7	5.2
Agriculture	29.9	30.8	31.8	32.0	32.1	31.1
Industry	35.5	32.9	31.8	30.6	30.7	30.6
Traction	1.8	2.1	2.2	2.1	2.1	2.1
Outside State	2.1	1.4	1.6	2.8	2.9	2.8
Others	10.3	9.6	9.3	8.2	7.3	7.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

It is evident from the above that share of domestic and agriculture consumption in the total sales of electricity has been increasing over the years and has increased from a level of about 46% in 1992-93 to 52% in 2000-01. In the States of Punjab, Maharashtra, U.P., Rajasthan, Andhra Pradesh, Gujarat, Madhya Pradesh, Haryana and Karnataka, 32-46% of the electricity is sold to the agriculture sector during 1999-2000(RE). Details of consumer category-wise sales for the years 1996-97 to 2000-01 is given in Annexures 3.26 to 3.30.

3.8 Sales Revenue Realised from Different Sectors

While the agriculture sector accounts for nearly one-third of the sales of the SEBs and the EDs, the sales revenue realised from this sector has been only 3.4% of the total revenue realisation during 1999-2000(RE). The domestic and agriculture sectors taken together accounted for nearly 50% of the total sales of the SEBs, but the recovery from these sectors is only about one-sixth of the revenue realised. On the other hand, industry and commercial sectors accounted for around 80% sale revenue whereas sales to these sectors have been in the range of 30-35%. Share of revenue realisation from agriculture and domestic sectors are given at Annexure 3.31 and 3.33.

3.9 Per Capita Consumption

The per capita consumption of electricity in India increased from 178 Kwh in 1985-86 to 360 Kwh in 1998-99 registering an annual growth rate of 6.5%. Despite this considerable growth, the level of per capita energy consumption in India is low when compared to the international average per capita energy consumption as well as other developing countries. Per Capita electricity consumption of some selected countries in 1997 is given in the Table 3.9.

Table 3.9

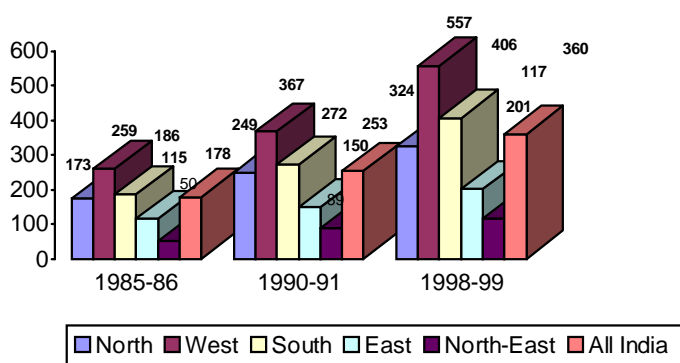
S.No	Country	Per Capita Electricity Consumption (Kwh)
1.	India	348
2.	Brazil	1783
3.	Egypt	787
4.	China	719
5.	U.K	5843
6.	Australia	6606
7.	U.S.A	8747

There are large inter-State and inter-regional variations in the per capita electricity consumption. As against the All-India per capita electricity consumption of 360 Kwh in 1998-99, the per capita electricity consumption in the Eastern and North Eastern region has been only 201 Kwh and 117 Kwh respectively. On the other hand, Western, Southern and Northern regions have per capita electricity consumption of 557 Kwh, 406 Kwh and 324 kwh respectively. The inter-State trends show greater disparities between the States. States like Punjab and Delhi have per capita electricity consumption of 861 Kwh and 689 Kwh, whereas it is only 75-114 Kwh in States like Manipur, Nagaland, Mizoram, Tripura and Arunachal Pradesh and about 152 Kwh in Bihar. The inter-regional variations in per capita consumption of electricity are indicated in figure 3.3. The inter-regional variations are shown in Table 3.10. The Inter-State variation can be seen in Annexure 3.35.

Table 3.10
Per Capita Electricity Consumption by Region

	Northern	Western	Southern	Eastern	N.Eastern	All-India
1985-86	173	259	186	115	50	178
1986-87	192	275	202	119	50	191
1987-88	202	297	205	125	62	201
1988-89	217	314	229	135	63	217
1989-90	241	334	249	129	76	236
1990-91	249	367	272	150	89	253
1991-92	265	391	286	156	88	268
1992-93	282	406	312	162	93	283
1993-94	286	437	335	174	94	299
1994-95	302	468	369	182	96	320
1995-96	308	513	377	195	99	336
1996-97	306	522	366	188	104	334
1997-98	313	538	400	192	103	348.5
1998-99	324	557	406	201	117	360

Figure 3.3
Per Capita Consumption of Electricity



3.10 Power Supply Position

The overall deficit in electricity supply (energy) deteriorated from 7.8% at the beginning of the Eighth Plan to 11.5% at the end of Eighth Plan. The power supply position at the end of Ninth Plan (based on the capacity addition programme of 40245 MW) as assessed by CEA indicates peak deficit of 11.6% and energy deficit of 1.4%. As against this the actual power supply position as on March 2001 indicated peak deficit of 13% and energy deficit of 7.8%. The states in the Eastern and North-Eastern Regions have minimal peak deficit except Bihar, which has 14% peak deficit. The Western and Southern Regions have maximum peak deficit of 19.1% and 14.4% as compared to other regions. Details can be seen from Annexure 3.36.

3.11 Rural Electrification

Out of 5,87,258 total inhabited villages in the country as per 1991 census, 5,06,916 villages (86.3%) have been declared electrified by March, 2000. Remaining about 80,000 villages are still awaiting this basic amenity. Thirteen States have declared 100% electrification of feasible villages. Remaining unelectrified villages of the country are mostly in nine States, viz. Uttar Pradesh (29.62%), Bihar (24.54%), Orissa (14.75%), West Bengal (10.5%), Assam (7.09%), Meghalaya (3.72%), Arunachal Pradesh (1.88%), Madhya Pradesh (3.98%) and Rajasthan (3.05%).

As per estimates, about 80,000 villages remain to be electrified in the country out of which about 62,000 villages could be connected with the grid using conventional means. The remaining 18,000 villages located in remote areas would have to be electrified using Non-Conventional Sources of Energy. It is proposed that 100% electrification of 62000 villages would be achieved in the next six years, i.e., by the end of the 10th Plan. The electrification of remote villages numbering around 18,000 is proposed to be achieved by the end of the 11th Plan. A suitable funding pattern with a mix of grant and soft loans for this purpose is also being worked out. The respective Central Ministries in charge of Rural Electrification and Non-Conventional energy sources, viz. Ministry of Power and MNES have already initiated necessary action to complete the above task in a time bound manner.

As per the latest estimates, the pump-sets potential in the country is 19.5 million. As on March' 2000 around 12.51 million pumps-sets have been energised, leaving a balance of about 7.0 million pump-sets yet to be energised. State-wise details are given in Annexures 3.37 and 3.38.

It is clear that the physical performance of the SEBs and EDs, as indicated by some of the parameters has shown improvement during the period 1992-93 to 2000-01. The PLF has improved, the secondary oil consumption has declined. However, it is the deterioration of their financial performance, in spite of the better physical performance, which is a matter of concern. The financial health of the SEBs is discussed in the following chapter.

INSTALLED CAPACITY (MW)

As on 31st March, 1997

	Hydel	(%)	Thermal	(%)	Wind	(%)	Total
I. SEBs							
1. Andhra Pradesh	2656.94	48.20	2801.50	50.82	54.29	0.98	5512.73
2. Assam	2.00	0.33	595.19	99.67	0.00	0.00	597.19
3. Bihar	169.90	8.57	1813.50	91.43	0.00	0.00	1983.40
4. Delhi(DVB)	0.00	0.00	653.60	100.00	0.00	0.00	653.60
5. Gujarat	487.00	10.64	3944.28	86.16	146.81	3.21	4578.09
6. Haryana	883.90	49.65	896.42	50.35	0.00	0.00	1780.32
7. Himachal Pradesh	299.40	99.97	0.10	0.03	0.00	0.00	299.50
8. Jammu & Kashmir	184.06	50.31	181.76	49.69	0.00	0.00	365.82
9. Karnataka	2391.55	71.02	967.92	28.74	7.85	0.23	3367.32
10. Kerala	1551.50	99.87	0.00	0.00	2.02	0.13	1553.52
11. Madhya Pradesh	846.10	21.84	3017.50	77.91	9.60	0.25	3873.20
12. Maharashtra	1359.22	17.47	6417.00	82.46	5.37	0.07	7781.59
13. Meghalaya	186.71	98.91	2.05	1.09	0.00	0.00	188.76
14. Orissa	1271.92	75.13	420.00	24.81	1.10	0.06	1693.02
15. Punjab	1798.94	51.27	1710.00	48.73	0.00	0.00	3508.94
16. Rajasthan	971.08	48.93	1013.50	51.07	0.00	0.00	1984.58
17. Tamil Nadu	1947.70	34.04	3100.00	54.17	674.87	11.79	5722.57
18. Uttar Pradesh	1504.75	24.84	4554.00	75.16	0.00	0.00	6058.75
19. West Bengal	96.51	3.36	2777.50	96.64	0.00	0.00	2874.01
Sub-total :(I)	18609.18	34.22	34865.82	64.12	901.91	1.66	54376.91
II.EDs							
1. Arunachal Pradesh	23.55	59.73	15.88	40.27	0.00	0.00	39.43
2. Chandigarh	0.00	0.00	2.00	100.00	0.00	0.00	2.00
3. Goa	0.05	31.25	0.00	0.00	0.11	68.75	0.16
4. Manipur	2.60	21.65	9.41	78.35	0.00	0.00	12.01
5. Mizoram	5.31	20.69	20.36	79.31	0.00	0.00	25.67
6. Nagaland	3.50	63.64	2.00	36.36	0.00	0.00	5.50
7. Sikkim	32.89	92.41	2.70	7.59	0.00	0.00	35.59
8. Tripura	16.01	20.70	61.35	79.30	0.00	0.00	77.36
Sub-total :(II)	83.91	42.44	113.70	57.51	0.11	0.06	197.72
III.BBMB :(III)	2704.50	100.00	0.00	0.00	0.00	0.00	2704.50
IV.CENTRAL SECTOR							
1. BTPS	0.00	0.00	720.00	100.00	0.00	0.00	720.00
2. DAE (Nuclear)	0.00	0.00	2225.00	100.00	0.00	0.00	2225.00
3. DVC	144.00	5.40	2517.50	94.60	0.00	0.00	2661.50
4. NEEPCO	250.00	55.40	201.00	44.60	0.00	0.00	451.00
5. NLC	0.00	0.00	2070.00	100.00	0.00	0.00	2070.00
6. NHPC	2115.00	100.00	0.00	0.00	0.00	0.00	2115.00
7. NTPC	0.00	0.00	16804.00	100.00	0.00	0.00	16804.00
Sub-total :(IV)	2509.00	9.28	24537.50	90.72	0.00	0.00	27046.50
V.PRIVATE SECTOR							
1. AECO (Gujarat)	0.00	0.00	549.00	100.00	0.00	0.00	549.00
2. CESC (W.Bengal)	0.00	0.00	695.00	100.00	0.00	0.00	695.00
3. Deshargarh SC (W.B)	0.00	0.00	26.38	100.00	0.00	0.00	26.38
4. Teco(Maharashtra)	426.00	24.26	1330.00	75.74	0.00	0.00	1756.00
5. BSES (Maharashtra)	0.00	0.00	500.00	100.00	0.00	0.00	500.00
6. ESSAR POWER (Gujarat)	0.00	0.00	330.00	100.00	0.00	0.00	330.00
9. Surat Elect. Co. (Guj)	0.00	0.00	0.20	100.00	0.00	0.00	0.20
10. Shivpur (Karnataka)	18.00	100.00	0.00	0.00	0.00	0.00	18.00
11. Maniyar HEP (Kerala)	12.00	100.00	0.00	0.00	0.00	0.00	12.00
11. Jagurapadu CCGT (A.P)	0.00	0.00	158.40	100.00	0.00	0.00	158.40
12. Godavari CCGT (A.P)	0.00	0.00	94.00	100.00	0.00	0.00	94.00
Sub-total :(V)	456.00	11.02	3682.98	88.98	0.00	0.00	4138.98
VI.OTHERS (Islands):(f)	0.00	0.00	35.25	100.00	0.00	0.00	35.25
Grand Total :	21658.09	25.24	63235.25	73.70	902.02	1.05	85795.36

INSTALLED CAPACITY (MW)

	As on 31st March, 1998						
	Hydel	(%)	Thermal	(%)	Wind	(%)	Total
I. SEBs							
1. Andhra Pradesh	2656.9	46.1	3051.5	52.9	55.8	1.0	5764.2
2. Assam	2.0	0.3	595.2	99.7	0.0	0.0	597.2
3. Bihar	174.9	8.8	1813.5	91.2	0.0	0.0	1988.4
4. Delhi(DVB)	0.0	0.0	653.6	100.0	0.0	0.0	653.6
5. Gujarat	487.0	10.4	4039.3	86.1	166.9	3.6	4693.2
6. Haryana	883.9	49.7	896.4	50.4	0.0	0.0	1780.3
7. Himachal Pradesh	299.2	100.0	0.1	0.0	0.0	0.0	299.3
8. Jammu & Kashmir	190.2	50.8	183.9	49.2	0.0	0.0	374.1
9. Karnataka	2447.6	71.3	967.9	28.2	17.0	0.5	3432.5
10. Kerala	1676.5	95.3	80.0	4.6	2.0	0.1	1758.5
11. Madhya Pradesh	847.9	21.9	3017.5	77.8	12.3	0.3	3877.7
12. Maharashtra	1367.2	16.5	6917.0	83.4	5.6	0.1	8289.8
13. Meghalaya	186.7	98.9	2.1	1.1	0.0	0.0	188.8
14. Orissa	1271.9	75.1	420.0	24.8	1.1	0.1	1693.0
15. Punjab	1798.9	48.4	1920.0	51.6	0.0	0.0	3718.9
16. Rajasthan	971.1	48.9	1013.5	51.1	0.0	0.0	1984.6
17. Tamil Nadu	1955.7	33.9	3100.0	53.8	707.3	12.3	5763.0
18. Uttar Pradesh	1504.8	24.4	4664.0	75.6	0.0	0.0	6168.8
19. West Bengal	127.2	4.4	2787.2	95.6	0.0	0.0	2914.4
Sub-total :(I)	18849.6	33.7	36122.7	64.6	968.0	1.7	55940.3
II.EDs							
1. Arunachal Pradesh	29.6	65.1	15.9	35.0	0.0	0.0	45.4
2. Chandigarh	0.0	0.0	2.0	100.0	0.0	0.0	2.0
3. Goa	0.1	31.3	0.0	0.0	0.1	68.8	0.2
4. Manipur	2.6	21.7	9.4	78.4	0.0	0.0	12.0
5. Mizoram	5.3	20.7	20.4	79.3	0.0	0.0	25.7
6. Nagaland	3.5	63.6	2.0	36.4	0.0	0.0	5.5
7. Sikkim	32.9	86.8	5.0	13.2	0.0	0.0	37.9
8. Tripura	16.0	18.8	69.4	81.2	0.0	0.0	85.4
Sub-total :(II)	89.9	42.0	124.0	57.9	0.1	0.1	214.0
III.BBMB :(III)	2704.5	100.0	0.0	0.0	0.0	0.0	2704.5
IV.CENTRAL SECTOR							
1. BTPS	0.0	0.0	720.0	100.0	0.0	0.0	720.0
2. DAE (Nuclear)	0.0	0.0	2225.0	100.0	0.0	0.0	2225.0
3. DVC	144.0	5.0	2727.5	95.0	0.0	0.0	2871.5
4. NEEPCO	250.0	43.6	324.0	56.5	0.0	0.0	574.0
5. NLC	0.0	0.0	2070.0	100.0	0.0	0.0	2070.0
6. NHPC	2115.0	100.0	0.0	0.0	0.0	0.0	2115.0
7. NTPC	0.0	0.0	16804.0	100.0	0.0	0.0	16804.0
Sub-total :(IV)	2509.0	9.2	24870.5	90.8	0.0	0.0	27379.5
V.PRIVATE SECTOR							
1. AECO (Gujarat)	0.0	0.0	490.0	100.0	0.0	0.0	490.0
2. CESC (W.Bengal)	0.0	0.0	905.0	100.0	0.0	0.0	905.0
3. Deshargarh SC (W.B)	0.0	0.0	46.4	100.0	0.0	0.0	46.4
4. Teco (Maharashtra)	426.0	24.3	1330.0	75.7	0.0	0.0	1756.0
5. BSES (Maharashtra)	0.0	0.0	500.0	100.0	0.0	0.0	500.0
6. ESSAR POWER (Gujarat)	0.0	0.0	515.0	100.0	0.0	0.0	515.0
7. TORRENT (Paguthan)	0.0	0.0	655.0	100.0	0.0	0.0	655.0
8. GIPCL Baroda CCGT (Guj)	0.0	0.0	167.0	100.0	0.0	0.0	167.0
9. Surat Elect. Co. (Guj)	0.0	0.0	0.2	100.0	0.0	0.0	0.2
10. Shivpur (Karnataka)	18.0	100.0	0.0	0.0	0.0	0.0	18.0
11. Maniyar HEP (Kerala)	12.0	100.0	0.0	0.0	0.0	0.0	12.0
11. Jagurapadu CCGT (A.P)	0.0	0.0	235.4	100.0	0.0	0.0	235.4
12. Godavari CCGT (A.P)	0.0	0.0	208.0	100.0	0.0	0.0	208.0
	0.0	0.0	19.5	100.0	0.0	0.0	19.5
Sub-total :(V)	456.0	8.3	5071.5	91.8	0.0	0.0	5527.5
VI.OTHERS (Islands)	0.0	0.0	40.9	100.0	0.0	0.0	40.9
Grand Total :	21904.5	24.6	66229.6	74.3	968.1	1.1	89102.3

INSTALLED CAPACITY (MW)

	As on 31st March, 1999 (Provisional)						Total
	Hydel	(%)	Thermal	(%)	Wind	(%)	
I. SEBs							
1. Andhra Pradesh	2656.90	46.04	3052.00	52.89	61.79	1.07	5770.69
2. Assam	2.00	0.33	595.69	99.67	0.00	0.00	597.69
3. Bihar	174.90	8.80	1813.50	91.20	0.00	0.00	1988.40
4. Delhi(DVB)	0.00	0.00	653.60	100.00	0.00	0.00	653.60
5. Gujarat	547.00	10.74	4380.28	85.99	166.91	3.28	5094.19
6. Haryana *	48.00	5.08	896.40	94.92	0.00	0.00	944.40
7. Himachal Pradesh *	299.37	99.96	0.13	0.04	0.00	0.00	299.50
8. Jammu & Kashmir	188.96	50.67	183.94	49.33	0.00	0.00	372.90
9. Karnataka	2627.55	66.40	1309.92	33.10	19.64	0.50	3957.11
10. Kerala	1690.50	94.31	100.00	5.58	2.02	0.11	1792.52
11. Madhya Pradesh	847.90	20.71	3227.50	78.84	18.44	0.45	4093.84
12. Maharashtra	1625.22	18.96	6917.00	80.70	28.94	0.34	8571.16
13. Meghalaya	186.71	98.91	2.05	1.09	0.00	0.00	188.76
14. Orissa	1271.92	75.13	420.00	24.81	1.10	0.06	1693.02
15. Punjab *	545.10	20.38	2130.00	79.62	0.00	0.00	2675.10
16. Rajasthan *	356.30	22.00	1263.50	78.00	0.00	0.00	1619.80
17. Tamil Nadu	1963.20	33.92	3100.00	53.56	725.05	12.53	5788.25
18. Uttar Pradesh	1510.75	24.83	4574.00	75.17	0.00	0.00	6084.75
19. West Bengal	141.51	4.88	2757.50	95.12	0.00	0.00	2899.01
Sub-total :(I)	16683.79	30.29	37377.01	67.85	1023.89	1.86	55084.69
II.EDs							
1. Arunachal Pradesh	29.55	65.05	15.88	34.95	0.00	0.00	45.43
2. Chandigarh	0.00	0.00	2.00	100.00	0.00	0.00	2.00
3. Goa	0.05	31.25	0.00	0.00	0.11	68.75	0.16
4. Manipur	2.60	21.65	9.41	78.35	0.00	0.00	12.01
5. Mizoram	5.31	20.69	20.36	79.31	0.00	0.00	25.67
6. Nagaland	3.50	63.64	2.00	36.36	0.00	0.00	5.50
7. Pondicherry	0.00	0.00	22.90	100.00	0.00	0.00	22.90
7. Sikkim	32.89	86.80	5.00	13.20	0.00	0.00	37.89
8. Tripura	16.01	18.76	69.35	81.24	0.00	0.00	85.36
Sub-total :(II)	89.91	37.95	146.90	62.00	0.11	0.05	236.92
III.BBMB :(III)	2704.50	100.00	0.00	0.00	0.00	0.00	2704.50
Note :- * Excluding the share from BBMB							
IV.CENTRAL SECTOR							
1. BTPS	0.00	0.00	720.00	100.00	0.00	0.00	720.00
2. DAE (Nuclear)	0.00	0.00	2225.00	100.00	0.00	0.00	2225.00
3. DVC	144.00	5.01	2727.50	94.99	0.00	0.00	2871.50
4. NEEPCO	250.01	40.00	375.00	60.00	0.00	0.00	625.01
5. NLC	0.00	0.00	2070.00	100.00	0.00	0.00	2070.00
6. NHPC	2115.00	100.00	0.00	0.00	0.00	0.00	2115.00
7. NTPC	0.00	0.00	17744.60	100.00	0.00	0.00	17744.60
Sub-total :(IV)	2509.01	8.84	25862.10	91.16	0.00	0.00	28371.11
V.PRIVATE SECTOR							
1. AECO (Gujarat)	0.00	0.00	549.00	100.00	0.00	0.00	549.00
2. CESC (W.Bengal)	0.00	0.00	1195.00	100.00	0.00	0.00	1195.00
3. Deshargarh SC (W.B)	0.00	0.00	46.38	100.00	0.00	0.00	46.38
4. Teco (Maharashtra)	426.00	24.26	1330.00	75.74	0.00	0.00	1756.00
5. BSES (Maharashtra)	0.00	0.00	500.00	100.00	0.00	0.00	500.00
6. ESSAR POWER (Gujarat)	0.00	0.00	515.00	100.00	0.00	0.00	515.00
7. TORRENT (Paguthan)-Guj.	0.00	0.00	655.00	100.00	0.00	0.00	655.00
8. GIPCL Baroda CCGT (Guj)	0.00	0.00	167.00	100.00	0.00	0.00	167.00
9. Surat Elect. Co. (Guj)	0.00	0.00	0.20	100.00	0.00	0.00	0.20
10. Shivpur (Karnataka)	18.00	100.00	0.00	0.00	0.00	0.00	18.00
11. Maniyar HEP (Kerala)	12.00	100.00	0.00	0.00	0.00	0.00	12.00
12. Jagurapadu CCGT (A.P)	0.00	0.00	235.40	100.00	0.00	0.00	235.40
13. Godavari CCGT (A.P)	0.00	0.00	208.00	100.00	0.00	0.00	208.00
14. Banaskandi GBPP (Assam)	0.00	0.00	15.00	100.00	0.00	0.00	15.00
15. Adamtilla GBPP (Assam)	0.00	0.00	9.50	100.00	0.00	0.00	9.50
17. Basin Bridge DGPP (T.N)	0.00	0.00	200.00	100.00	0.00	0.00	200.00
18. Dabhol CCGT (Maha.)	0.00	0.00	740.00	100.00	0.00	0.00	740.00
Sub-total :(V+A70)	456.00	6.68	6365.48	93.32	0.00	0.00	6821.48
VI.OTHERS (Islands)	0.00	0.00	35.25	100.00	0.00	0.00	35.25
Grand Total :	22443.21	24.07	69786.74	74.84	1024.00	1.10	93253.95

INSTALLED CAPACITY (MW)

	As on 31st March, 2000 (Provisional)						Total
	Hydel	(%)	Thermal	(%)	Wind	(%)	
I. SEBs							
1. Andhra Pradesh	2671.94	45.98	3051.50	52.51	88.04	1.51	5811.48
2. Assam	2.00	0.33	595.19	99.67	0.00	0.00	597.19
3. Bihar	174.90	8.80	1813.50	91.20	0.00	0.00	1988.40
4. Delhi(DVB)	0.00	0.00	617.00	100.00	0.00	0.00	617.00
5. Gujarat	547.00	10.61	4439.28	86.15	166.91	3.24	5153.19
6. Haryana	48.00	5.08	896.42	94.92	0.00	0.00	944.42
7. Himachal Pradesh	299.37	99.96	0.13	0.04	0.00	0.00	299.50
8. Jammu & Kashmir	225.19	55.04	183.94	44.96	0.00	0.00	409.13
9. Karnataka	2667.55	65.23	1387.92	33.94	34.22	0.84	4089.69
10. Kerala	1740.50	86.35	273.00	13.54	2.02	0.10	2015.52
11. Madhya Pradesh	870.41	20.10	3437.50	79.38	22.59	0.52	4330.50
12. Maharashtra	2399.22	25.66	6872.00	73.49	79.28	0.85	9350.50
13. Meghalaya	186.71	98.91	2.05	1.09	0.00	0.00	188.76
14. Orissa	1571.92	78.87	420.00	21.07	1.10	0.06	1993.02
15. Punjab	545.10	20.38	2130.00	79.62	0.00	0.00	2675.10
16. Rajasthan	356.30	19.04	1513.50	80.86	2.00	0.11	1871.80
17. Tamil Nadu	1993.20	34.06	3100.00	52.98	758.44	12.96	5851.64
18. Uttar Pradesh	1533.25	25.24	4542.00	74.76	0.00	0.00	6075.25
19. West Bengal	164.01	3.75	2967.34	94.76	0.00	0.00	3131.35
Sub-total :(I)	17996.57	31.34	38242.27	66.63	1154.60	2.01	57393.44
II.EDs							
1. Arunachal Pradesh	29.55	65.05	15.88	34.95	0.00	0.00	45.43
2. Chandigarh	0.00	0.00	2.00	100.00	0.00	0.00	2.00
3. Goa	0.05	31.25	0.00	0.00	0.11	68.75	0.16
4. Manipur	2.60	21.65	9.41	78.35	0.00	0.00	12.01
5. Mizoram	5.31	20.69	20.36	79.31	0.00	0.00	25.67
6. Nagaland	3.50	63.64	2.00	36.36	0.00	0.00	5.50
7. Pondicherry	0.00	0.00	32.50	100.00	0.00	0.00	32.50
7. Sikkim	32.89	86.80	5.00	13.20	0.00	0.00	37.89
8. Tripura	16.01	18.76	69.35	81.24	0.00	0.00	85.36
Sub-total :(II)	89.91	36.47	156.50	63.48	0.11	0.04	246.52
III.BBMB :(III)	2704.50	100.00	0.00	0.00	0.00	0.00	2704.50
IV.CENTRAL SECTOR							
1. BTPS	0.00	0.00	720.00	100.00	0.00	0.00	720.00
2. DAE (Nuclear)	0.00	0.00	2680.00	100.00	0.00	0.00	2680.00
3. DVC	144.00	5.01	2727.50	94.99	0.00	0.00	2871.50
4. NEEPCO	250.01	40.00	375.00	60.00	0.00	0.00	625.01
5. NLC	0.00	0.00	2070.00	100.00	0.00	0.00	2070.00
6. NHPC	2175.00	100.00	0.00	0.00	0.00	0.00	2175.00
7. NTPC	0.00	0.00	18860.00	100.00	0.00	0.00	18860.00
Sub-total :(IV)	2569.01	8.56	27432.50	91.44	0.00	0.00	30001.51
V.PRIVATE SECTOR							
1. AECO (Gujarat)	0.00	0.00	490.00	100.00	0.00	0.00	490.00
2. CESC (W.Bengal)	0.00	0.00	1195.00	100.00	0.00	0.00	1195.00
3. Deshargarh SC (W.B)	0.00	0.00	46.38	100.00	0.00	0.00	46.38
4. TECo (Maharashtra)	426.00	24.26	1330.00	75.74	0.00	0.00	1756.00
5. BSES (Maharashtra)	0.00	0.00	545.00	100.00	0.00	0.00	545.00
6. ESSAR POWER (Gujarat)	0.00	0.00	515.00	100.00	0.00	0.00	515.00
7. TORRENT (Paguthan)-Guj.	0.00	0.00	655.00	100.00	0.00	0.00	655.00
8. GIPCL Baroda CCGT (Guj)	0.00	0.00	417.00	100.00	0.00	0.00	417.00
9. Surat Elect. Co. (Guj)	0.00	0.00	0.20	100.00	0.00	0.00	0.20
10. Shivpur (Karnataka)	18.00	100.00	0.00	0.00	0.00	0.00	18.00
11. Maniyar HEP (Kerala)	12.00	100.00	0.00	0.00	0.00	0.00	12.00
12. Jagurapadu CCGT (A.P)	0.00	0.00	235.40	100.00	0.00	0.00	235.40
13. Godavari CCGT (A.P)	0.00	0.00	208.00	100.00	0.00	0.00	208.00
14. Sunderban (W.B)	0.00	0.00	0.14	100.00	0.00	0.00	0.14
15. Eloor CCGT (Kerala)	0.00	0.00	90.00	100.00	0.00	0.00	90.00
16. Banaskandi GBPP (Assam)	0.00	0.00	15.00	100.00	0.00	0.00	15.00
17. Adamtilla GBPP (Assam)	0.00	0.00	9.50	100.00	0.00	0.00	9.50
18. Salgaokar CCGT (Goa)	0.00	0.00	48.00	100.00	0.00	0.00	48.00
29. Basin Bridge DGPP (T.N)	0.00	0.00	200.00	100.00	0.00	0.00	200.00
20. Dabhol CCGT (Maha.)	0.00	0.00	740.00	100.00	0.00	0.00	740.00
21. Torangallu CCGT	0.00	0.00	260.00	100.00	0.00	0.00	260.00
Sub-total :(V)	456.00	6.12	6999.62	93.88	0.00	0.00	7455.62
VI.OTHERS (Islands):(VI)	0.00	0.00	35.25	100.00	0.00	0.00	35.25
Grand Total :	23815.99	24.34	72866.14	74.48	1154.71	1.18	97836.84

INSTALLED CAPACITY (MW)

	As on 31st March, 2001 (Provisional)						Total
	Hydel	(%)	Thermal	(%)	Wind	(%)	
I. SEBs							
1. Andhra Pradesh	2821.94	48.02	3051.50	51.93	3.05	0.05	5876.49
2. Assam	2.00	0.33	595.19	99.67	0.00	0.00	597.19
3. Bihar	174.90	8.80	1813.50	91.20	0.00	0.00	1988.40
4. Delhi(DVB)	0.00	0.00	617.00	100.00	0.00	0.00	617.00
5. Gujarat	547.00	11.93	4019.28	87.69	17.35	0.38	4583.63
6. Haryana	48.00	4.16	1106.42	95.84	0.00	0.00	1154.42
7. Himachal Pradesh	323.67	99.96	0.13	0.04	0.00	0.00	323.80
8. Jammu & Kashmir	232.69	55.85	183.94	44.15	0.00	0.00	416.63
9. Karnataka	2727.55	66.23	1387.92	33.70	2.57	0.06	4118.04
10. Kerala	1795.00	88.35	234.60	11.55	2.02	0.10	2031.62
11. Madhya Pradesh	870.41	20.20	3437.50	79.78	0.59	0.01	4308.50
12. Maharashtra	2400.17	24.63	7337.00	75.30	6.44	0.07	9743.61
13. Meghalaya	186.71	98.91	2.05	1.09	0.00	0.00	188.76
14. Orissa	1877.00	81.68	420.00	18.28	1.10	0.05	2298.10
15. Punjab	1145.10	34.96	2130.00	65.04	0.00	0.00	3275.10
16. Rajasthan	355.74	18.99	1513.50	80.79	4.25	0.23	1873.49
17. Tamil Nadu	1995.15	38.21	3207.00	61.41	19.83	0.38	5221.98
18. Uttar Pradesh	1533.25	27.21	4102.00	72.79	0.00	0.00	5635.25
19. West Bengal	164.71	3.75	3417.06	95.40	0.00	0.00	3581.77
Sub-total :(I)	19200.99	31.34	38575.59	66.70	57.20	0.10	57833.78
II.EDs							
1. Arunachal Pradesh	29.55	65.05	15.88	34.95	0.00	0.00	45.43
2. Chandigarh	0.00	0.00	2.00	100.00	0.00	0.00	2.00
3. Goa	0.05	31.25	0.00	0.00	0.11	68.75	0.16
4. Manipur	3.20	25.38	9.41	74.62	0.00	0.00	12.61
5. Mizoram	8.26	22.20	28.94	77.80	0.00	0.00	37.20
6. Nagaland	4.20	66.04	2.16	33.96	0.00	0.00	6.36
7. Pondicherry	0.00	0.00	32.50	100.00	0.00	0.00	32.50
7. Sikkim	32.89	86.80	5.00	13.20	0.00	0.00	37.89
8. Tripura	16.01	18.76	69.35	81.24	0.00	0.00	85.36
Sub-total :(II)	94.16	36.28	165.24	63.67	0.11	0.04	259.51
III.BBMB :(III)	2704.50	100.00	0.00	0.00	0.00	0.00	2704.50
IV.CENTRAL SECTOR							
1. BTPS	0.00	0.00	720.00	100.00	0.00	0.00	720.00
2. DAE (Nuclear)	0.00	0.00	2860.00	100.00	0.00	0.00	2860.00
3. DVC	144.00	5.01	2727.50	94.99	0.00	0.00	2871.50
4. NEEPCO	325.01	46.43	375.00	53.57	0.00	0.00	700.01
5. NLC	0.00	0.00	2070.00	100.00	0.00	0.00	2070.00
6. NHPC	2175.00	100.00	0.00	0.00	0.00	0.00	2175.00
7. NTPC	0.00	0.00	19004.00	100.00	0.00	0.00	19004.00
Sub-total :(IV)	2644.01	8.70	27756.50	91.30	0.00	0.00	30400.51
V.PRIVATE SECTOR							
1. AECO (Gujarat)	0.00	0.00	490.00	100.00	0.00	0.00	490.00
2. CESC (W.Bengal)	0.00	0.00	1155.14	100.00	0.00	0.00	1155.14
3. Deshargarh SC (W.B)	0.00	0.00	46.38	100.00	0.00	0.00	46.38
4. TECo (Maharashtra)	447.00	26.40	1246.00	73.60	0.00	0.00	1693.00
5. BSES (Maharashtra)	0.00	0.00	584.00	100.00	0.00	0.00	584.00
6. ESSAR POWER (Gujarat)	0.00	0.00	515.00	100.00	0.00	0.00	515.00
7. TORRENT (Paguthan)-Guj.	0.00	0.00	655.00	100.00	0.00	0.00	655.00
8. GIPCL Baroda CCGT (Guj)	0.00	0.00	417.00	100.00	0.00	0.00	417.00
9. Surat Elect. Co. (Guj)	0.00	0.00	0.20	100.00	0.00	0.00	0.20
10. Shivpur (Karnataka)	18.00	100.00	0.00	0.00	0.00	0.00	18.00
11. Maniyar HEP (Kerala)	12.00	100.00	0.00	0.00	0.00	0.00	12.00
12. Jagurapadu CCGT (A.P)	0.00	0.00	235.40	100.00	0.00	0.00	235.40
13. Godavari CCGT (A.P)	0.00	0.00	208.00	100.00	0.00	0.00	208.00
14. Sunderban (W.B)	0.00	0.00	0.14	100.00	0.00	0.00	0.14
15. BSES (Eloor) CCGT (Kerala)	0.00	0.00	174.00	100.00	0.00	0.00	174.00
16. Banaskandi GBPP (Assam)	0.00	0.00	15.00	100.00	0.00	0.00	15.00
17. Adamtilla GBPP (Assam)	0.00	0.00	9.50	100.00	0.00	0.00	9.50
18. Salgaokar CCGT (Goa)	0.00	0.00	48.00	100.00	0.00	0.00	48.00
29. Basin Bridge DGPP (T.N)	0.00	0.00	200.00	100.00	0.00	0.00	200.00
20. Dabhol CCGT (Maha.)	0.00	0.00	740.00	100.00	0.00	0.00	740.00
21. Torangallu CCGT	0.00	0.00	260.00	100.00	0.00	0.00	260.00
22. Kondapalli CCGT (AP)	0.00	0.00	350.00	100.00	0.00	0.00	350.00
23. Pillaiperumalnallur CCGT (TN)	0.00	0.00	225.00	100.00	0.00	0.00	225.00
24. Samalpatti DG (TN)	0.00	0.00	105.66	100.00	0.00	0.00	105.66
25. Jojobera TPS (Bihar)	0.00	0.00	120.00	100.00	0.00	0.00	120.00
26. Bellary DG	0.00	0.00	25.20	100.00	0.00	0.00	25.20
27. GSEC (Guj.)	0.00	0.00	420.00	100.00	0.00	0.00	420.00
28. Wind Farms (Private)	0.00	0.00	0.00	0.00	1212.17	0.00	1212.17
Sub-total :(V)	477.00	4.80	8244.62	83.00	1212.17	0.00	9933.79
VI.OTHERS (Islands):(VI)	0.00	0.00	35.25	100.00	0.00	0.00	35.25
Grand Total :	25120.66	24.71	74777.20	73.56	1269.48	1.25	101660.20

ADDITION TO INSTALLED CAPACITY (MW)

	1994-95			1995-96			1996-97			1999-2000			2000-01		
	Hydel	Thermal	Total	Hydel	Thermal	Total	Hydel	Thermal	Total	Hydel	Thermal	Total	Hydel	Thermal	Total
I. SEBs															
1. Andhra Pradesh	60	420	480	0	0	0	0	0	0	15	0	15	150	0	150
2. Assam	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0
3. Bihar	5	210	215	3	0	3	5	0	0	0	0	0	0	0	0
4. Delhi(DVB)	0	34	34	0	68	68	0	0	0	0	0	0	0	0	0
5. Gujarat	0	0	0	60	0	60	0	210	270	0	0	0	0	0	0
6. Haryana	0	0	0	0	0	0	0	0	0	0	0	0	0	210	210
7. Himachal Pradesh	2	0	2	15	0	15	11	0	0	0	0	0	22.5	0	23
8. Jammu & Kashmir	0	25	25	4	0	4	0	0	0	35	0	35	7.5	0	8
9. Karnataka	0	210	210	0	0	0	0	210	390	40	210	250	60	0	60
10. Kerala	8	0	8	0	0	0	60	20	36	50	128	178	0	0	0
11. Madhya Pradesh	80	0	80	0	0	0	0	210	210	23	210	233	0	0	0
12. Maharashtra	6	120	126	40	0	40	5	0	258	774	0	774	0	420	420
13. Meghalaya	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14. Orissa	0	210	210	0	210	210	0	0	0	300	0	300	300	0	300
15. Punjab	0	0	0	0	0	0	0	210	210	0	0	0	600	0	600
16. Rajasthan	0	3	3	0	36	36	0	250	250	0	250	250	0	0	0
17. Tamil Nadu	0	420	420	0	330	330	0	0	8	30	0	30	0	107	107
18. Uttar Pradesh	0	500	500	0	0	0	0	0	6	23	0	23	0	0	0
19. West Bengal	25	0	25	25	0	25	0	0	15	23	210	233	0	420	420
Sub-total :(I)	185	2172	2357	147	644	791	81	1110	1653	1312	1008	2320	1140	1157	2297
II.EDs															
1. Arunachal Pradesh	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Goa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. Manipur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4. Mizoram	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5. Nagaland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6. Pondicherry	0	0	0	0	0	0	0	23	23	0	10	10	0	0	0
7. Sikkim	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8. Tripura	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0
Sub-total :(II)	0	0	0	0	16	16	0	23	23	0	10	10	0	0	0
III.CENTRAL SECTOR															
1. BTPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. DAE (Nuclear)	0	220	220	0	0	0	0	0	0	0	440	440	0	440	440
3. DVC	0	0	0	0	210	210	0	0	0	0	0	0	0	0	0
4. NEEPCO	0	101	101	0	67	67	100	51	51	0	0	0	75	0	75

5. NLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6. NHPC	115	0	115	0	0	0	480	0	0	60	0	60	0	0	0
7. NTPC	0	1096	1096	0	710	710	0	941	941	0	1115	1115	0	144	144
Sub-total :(III)	115	1417	1532	0	987	987	580	992	992	60	1555	1615	75	584	659
IV.PRIVATE SECTOR															
1. AECO (Gujarat)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. APGPCL (A.P.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3. CESC (W.B.)	0	0	0	0	0	0	0	250	250	0	0	0	0	0	0
4. GIPCL(Guj)	0	0	0	0	0	0	0	0	0	0	250	250	0	0	0
5. TECo(Maha)	150	60	210	0	0	0	0	0	0	0	0	0	0	0	0
6. BSES (Maha)	0	500	500	0	0	0	0	0	0	0	135	135	0	0	0
7. ESSAR POWER	0	0	0	0	330	330	0	0	0	0	0	0	0	0	0
8. TORRENT	0	0	0	0	0	0	0	250	250	0	0	0	0	0	0
8. Jagurapadu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9. Godavari	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10. Dabhol CCGT	0	0	0	0	0	0	0	740	740	0	0	0	0	0	0
11. Toranagallu	0	0	0	0	0	0	0	130	130	0	130	130	0	0	0
12. B.Bridge DG	0	0	0	0	0	0	0	200	200	0	0	0	0	0	0
13. DLF Power	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0
14. Salgaokar CCGT										0	48	48	0	0	0
15. Kondapalli CCGT														350	350
16. Pillaiperumalnallur CCGT														225	225
17. Samalpatti DG														60.36	60
18. Cochin CCGT (Eloore)														39	39
19. Bellary Dg														25.2	25
20. Jojobera TPS														120	120
Sub-total :(IV)	150	560	710	0	330	330	0	1575	1575	0	563	563	0	819.6	820
Grand Total :	450	4149	4599	147	1977	2124	661	3700	4242	1372	3136	4508	1215	2561	3776

ANNEXURE 3.7

PLANT AVAILABILITY

	(%)								
SEBs.	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
1 Andhra Pradesh	77.40	82.44	83.30	85.60	90.20	89.00	90.90	85.30	89.80
2 Assam	47.30	52.10	63.30	52.30	63.30	55.40	49.00	36.90	31.40
3 Bihar	38.26	46.40	49.00	42.40	34.00	36.90	30.40	41.80	36.50
Tenughat Nigam								69.90	45.10
4 Delhi (DVB)	80.00	75.20	67.30	71.30	72.30	67.80	72.00	58.50	71.20
5 Gujarat	77.50	82.40	78.80	78.20	82.10	85.00	81.90	77.80	77.80
GSECL									85.10
6 Haryana	60.40	69.40	61.50	59.10	62.20	68.80	70.30	65.20	69.20
7 Himachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8 Jammu & Kashmir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 Karnataka	71.40	56.60	81.20	86.40	83.60	86.20	88.70	90.70	87.40
10 Kerala	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11 Madhya Pradesh	68.20	72.00	73.60	78.40	77.10	76.40	77.40	78.40	79.00
12 Maharashtra	77.60	77.70	83.80	82.90	84.40	85.90	85.00	82.90	85.10
13 Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14 Orissa \$	53.40	59.00	63.60	56.70	81.00	84.10	83.70	88.50	92.50
15 Punjab	77.80	81.40	82.10	81.60	84.70	80.80	88.10	79.20	82.70
16 Rajasthan	75.90	83.00	85.90	78.60	77.40	80.30	89.30	83.20	86.50
17 Tamil Nadu	65.80	74.90	77.70	78.00	84.50	83.20	81.90	77.40	81.70
18 Uttar Pradesh	59.60	69.00	69.60	72.90	60.40	62.70	63.10	61.30	64.30
19 West Bengal PDC	52.64	52.30	69.50	68.90	61.30	65.40	71.20	82.60	77.90
WBSEB								66.20	68.10
All India	72.80	74.69	78.00	76.62	77.80	79.00	79.40	78.70	80.30

\$:1994-95 onwards are the figures for OPGC.

Annexure 3.8

FORCED OUTAGES OF THERMAL STATIONS (%)

S.No.	Agency	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
<u>I. SEBs</u>										
<u>Northern Region</u>		17.04	15.20	14.50	15.89	15.56	17.10	11.90	18.10	12.90
1	Haryana	30.94	16.39	26.70	35.70	29.74	24.10	22.70	25.10	26.30
2	Punjab	7.07	8.19	13.10	10.20	7.10	12.80	4.70	12.20	9.50
3	Rajasthan	14.82	7.22	4.90	9.20	10.32	9.40	5.00	14.70	3.70
4	U.P.	27.67	27.57	22.70	15.86	26.11	29.70	23.20	32.10	25.60
5	Delhi(DVB)	16.50	17.30	26.50	25.90	18.05	26.60	19.80	34.00	22.60
<u>Western Region</u>		11.78	11.64	10.30	8.29	8.16	7.80	7.40	8.20	8.40
6	Gujarat	10.62	7.20	7.60	6.60	7.90	7.40	7.80	10.40	12.90
7	Maharashtra	13.67	14.07	10.00	7.79	10.19	10.00	9.40	10.90	9.20
8	Madhya Pradesh	16.51	14.63	19.30	12.20	11.00	9.00	10.40	9.90	10.60
<u>Southern Region</u>		12.42	13.69	10.00	8.70	6.84	5.40	5.90	9.80	7.40
9	Andhra Pradesh	11.28	7.46	8.20	6.00	6.42	5.90	4.30	10.00	5.90
10	Tamil Nadu	13.80	10.08	10.40	8.10	8.15	7.70	8.20	16.60	10.90
11	Karnataka Power Corp.	8.81	26.57	8.90	6.70	6.96	2.90	5.30	5.50	2.80
<u>Eastern Region</u>		22.41	29.62	20.10	20.40	20.16	23.80	24.50	23.60	24.90
12	Bihar	27.57	41.90	31.10	21.90	28.36	36.00	48.30	40.80	40.60
12	Orissa \$	26.98	25.90	19.80	33.50	19.00	5.30	5.20	4.30	1.60
14	West Bengal SEB	13.90	40.37	24.20	17.90	16.67	14.80	22.00	30.40	31.60
15	WBPDC	8.86	11.51	5.20	8.40	10.37	11.60	13.20	17.00	19.30
16	D.P.L.	44.45	25.92	21.60	22.23	28.01	42.80	35.50	53.70	49.50
<u>N.E.Region</u>		34.39	46.52	33.60	21.31	10.54	35.40	48.50	49.40	52.00
17	Assam	34.39	46.52	33.60	21.30	10.54	35.40	48.50	49.40	52.00
<u>All SEBs</u>		21.10	16.93	15.00	13.50	9.60	14.30	13.60	17.80	15.60
<u>II. Central Sector</u>										
<u>1 N.T.P.C.(STPS)</u>		8.30	9.42	6.00	6.40	7.20	8.30	8.70	6.60	5.20
<u>2 NLC</u>		16.07	27.04	19.10	18.10	7.23	6.90	5.50	8.30	9.90
<u>3 D.V.C.</u>		35.77	41.09	25.70	34.60	22.67	34.20	30.00	37.80	40.60
<u>III.Private Sector</u>										
<u>1 A.E.Co.</u>		14.53	14.34	8.30	3.59	3.74	2.50	2.50	2.80	6.20
<u>2 Trombay</u>		8.38	10.06	12.30	2.10	1.55	6.40	3.50	1.70	3.50
<u>3 C.E.S.C.</u>		7.63	9.06	4.70	3.30	1.79	1.60	2.10	5.00	7.10
<u>4 BSES</u>						30.19	11.80	2.50	3.30	1.80
<u>(IV) All India</u>		15.19	16.19	13.17	12.42	11.95	12.80	12.10	14.50	13.10

\$: 1994-95 onwards figures are for OPGC.

PLANT LOAD FACTOR OF THERMAL STATIONS (%)

S.No. Agency	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-2001
I. SEBs											
<u>Northern Region</u>											
	55.2	58.8	62.0	64.0	59.1	62.0	64.7	66.7	67.2	70.9	73.1
1 Haryana	34.5	45.8	49.9	40.5	44.7	42.9	47.7	49.4	48.8	53.0	49.9
2 Punjab	52.9	52.8	58.3	63.5	56.7	55.0	65.7	69.1	69.4	74.7	77.9
3 Rajasthan	42.8	65.7	77.0	81.0	75.6	73.7	75.6	80.5	78.1	82.3	85.2
4 U.P.	52.1	44.3	50.5	50.3	43.9	47.3	49.1	48.8	48.9	49.8	56.7
5 Delhi(DVB)	50.7	57.2	54.0	49.0	53.9	51.7	41.7	47.2	38.2	49.9	49.5
<u>Western Region</u>											
	57.7	59.6	59.7	63.4	63.8	68.1	70.2	70.3	70.5	72.3	73.4
6 Gujarat	57.7	56.9	61.6	60.4	60.5	65.3	64.8	65.6	63.6	63.4	66.9
7 Maharashtra	58.1	61.3	59.7	64.1	61.2	64.9	68.7	68.3	68.4	71.7	72.7
8 Madhya Pradesh	52.7	49.2	52.5	56.1	58.2	58.7	62.3	66.0	67.2	69.4	66.3
<u>Southern Region</u>											
	61.7	60.8	62.6	68.3	69.1	74.7	75.8	77.1	75.4	79.6	81.9
9 Andhra Pradesh	65.8	62.1	65.0	68.7	70.2	77.4	78.3	82.0	76.8	83.2	85.2
10 Tamil Nadu	58.3	55.7	65.2	69.0	68.1	76.1	72.3	68.1	65.9	72.3	74.9
11 Karnataka	76.2	59.1	49.4	66.9	64.9	67.7	70.2	75.2	81.6	82.3	81.3
<u>Eastern Region</u>											
	36.5	37.3	39.8	44.8	43.7	42.7	42.2	43.0	44.3	46.1	48.0
12 Bihar	23.9	21.3	25.2	24.4	20.0	17.4	15.3	16.1	22.5	19.7	19.0
Tenughat V								51.7	40.1	31.7	36.1
13 Orissa *	33.9	30.0	34.5	35.5	29.0	67.0	69.4	65.3	76.2	85.6	81.9
14 West Bengal	30.9	30.8	31.1	40.5	41.2	34.6	39.2	40.0	36.8	39.8	36.2
WBPDC	57.3	61.4	58.1	68.2	60.4	57.6	56.5	52.8	60.7	56.2	55.9
DPL	24.4	17.8	28.7	26.3	26.6	26.5	29.5	25.3	17.6	24.8	17.3
<u>N.E.Region</u>											
	24.6	24.6	24.3	19.9	26.8	28.6	27.1	21.3	18.7	18.2	18.6
15 Assam	24.6	24.6	24.3	19.9	26.7	28.6	27.1	21.3	18.7	18.2	18.6
<u>All SEBs</u>											
	51.3	50.6	54.1	56.6	55.0	58.0	60.3	60.9	60.8	63.7	65.6
II. Central Sector											
	58.1	64.5	62.7	69.8	69.2	70.9	71.0	70.4	71.1	73.8	74.3
1 N.T.P.C.(STPS)	60.9	69.2	68.8	76.9	76.2	76.7	76.4	74.4	75.6	79.7	79.5
2 NLC	69.8	66.3	56.4	55.5	60.4	67.6	70.3	72.5	73.6	73.2	80.1
3 D.V.C.	33.3	33.6	32.3	42.3	38.2	37.8	35.6	38.4	38.0	35.9	36.2
III.Private Sector											
	58.4	64.5	54.1	56.6	65.9	72.3	71.2	71.1	68.3	68.9	73.0
1 A.E.Co.	67.1	67.3	62.5	67.0	69.1	69.3	71.4	71.3	74.4	81.7	82.5
2 Trombay	54.6	53.0	54.3	48.8	60.6	72.8	68.8	63.5	61.2	60.8	70.3
3 C.E.S.C.	60.8	58.3	67.5	71.3	75.6	78.9	74.9	76.9	72.4	64.0	66.2
4 BSES						55.3	73.2	82.4	74.8	86.0	81.7
IV. All India											
	53.9	55.3	57.1	61.0	60.0	63.0	64.4	64.7	64.6	67.3	69.0

GROSS GENERATION (MKwh)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
I.States									
1. Andhra Pradesh	18370.8	19958.8	21141.0	22498.8	25913.1	29181.8	31957.0	35386.0	35612.0
2. Assam	1068.3	939.9	1255.0	1422.7	1331.7	1032.6	939.0	920.0	1066.0
3. Bihar	2967.1	2986.5	2700.3	2301.2	2741.8	3569.8	4223.0	3621.0	3641.0
4. Delhi(DVB)	2432.4	2280.5	2303.5	2218.6	2025.9	2183.1	2064.0	2533.0	2801.0
5. Gujarat	23044.6	24120.7	22008.1	25992.9	27075.4	30246.8	35434.0	36300.0	35120.0
6. Haryana	7972.7	6677.0	7417.9	7262.0	7627.3	7331.5	3754.0	4039.0	3803.0
7. Himachal Pradesh	1087.4	976.6	1131.7	1285.4	1251.9	1306.0	1458.0	1194.0	1161.0
8. Jammu & Kashmir	801.0	789.5	879.1	798.0	796.0	951.3	668.0	602.0	556.0
9. Karnataka	12758.4	14343.6	16741.1	15502.8	12927.4	17108.6	17060.0	20795.0	21591.0
10. Kerala	6192.7	5822.3	6571.1	6626.1	5510.2	5183.2	7613.0	7656.0	7183.0
11. Madhya Pradesh	13259.6	14382.5	16597.1	17598.9	18416.3	19448.9	20996.0	22615.0	22249.0
12. Maharashtra	38607.3	41416.6	38210.0	50699.1	53562.1	54186.5	56803.0	62112.0	61187.0
13. Meghalaya	430.1	584.1	377.7	542.6	486.0	595.6	544.0	637.0	657.0
14. Orissa	5422.7	5373.2	5764.9	6008.6	5945.7	5839.9	6214.0	8356.0	8434.0
15. Punjab	15717.9	16322.1	17175.1	16898.7	18455.3	17900.1	14393.0	17059.0	17605.0
16. Rajasthan	8591.9	8529.0	8772.8	9928.6	10386.4	10852.7	8064.0	9171.0	10261.0
17. Tamil Nadu	16958.5	17626.8	19916.6	21975.0	23636.2	23827.4	22380.0	24986.0	26446.0
18. Uttar Pradesh	18167.1	19846.8	21675.2	22827.3	23637.1	23789.8	24891.0	24388.0	24765.0
19. West Bengal	11699.7	13585.0	10464.3	14286.7	14888.6	14754.7	15742.0	16431.0	17896.0
Sub-total :(I)	205550.2	216561.3	221102.7	246674.1	256614.5	269290.1	275197.0	298801.0	302034.0
II.EDs									
1. Arunachal Pradesh	54.0	60.1	68.5	66.7	57.2	89.3	16.0	13.0	13.0
2. Goa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Manipur	3.8	3.3	3.0	4.0	2.0	0.7	0.0	0.0	0.0
4. Mizoram	19.3	16.0	20.2	14.6	14.1	18.3	0.0	0.0	0.0
5. Nagaland	3.5	2.3	3.2	3.7	2.8	2.3	0.0	0.0	0.0
6. Pondicherry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	132.0	232.0
7. Sikkim	42.7	50.8	59.3	63.6	72.5	63.2	26.0	11.0	21.0
8. Tripura	176.1	153.8	173.7	194.2	252.3	301.5	344.0	312.0	312.0
Sub-total :(II)	299.4	286.3	327.9	346.8	400.9	475.2	386.0	468.0	578.0
III.CENTRAL SECTOR:(III)	90242.9	107120.7	113774.2	132757.1	138767.5	151868.4	158671.0	169221.0	186416.0
IV. OTHERS : (IV)	4951.8	81.4	88.2	99.3	106.6	113.6	14106.0	12086.0	10422.0
Grand Total :	301044.3	324049.7	335292.9	379877.2	395889.4	421747.2	448360.0	480576.0	499450.0

GROSS GENERATION (MKWH)
(1997-98)

	Hydel				Thermal & Wind				Nuclear		Total
	SEB/COR.	(%)	PVT.	(%)	SEB/COR.	(%)	PVT.	(%)	(%)	(%)	
I. States											
1. Andhra Pradesh	7447.8	25.5	0.0	0.0	19691.5	67.5	2042.6	7.0	0.0	0.0	29181.8
2. Assam	0.0	0.0	0.0	0.0	1032.6	100.0	0.0	0.0	0.0	0.0	1032.6
3. Bihar	372.0	10.4	0.0	0.0	3197.8	89.6	0.0	0.0	0.0	0.0	3569.8
4. Delhi(DVB)	0.0	0.0	0.0	0.0	2183.1	100.0	0.0	0.0	0.0	0.0	2183.1
5. Gujarat	1285.0	4.2	0.0	0.0	22530.6	74.5	6431.2	21.3	0.0	0.0	30246.8
6. Haryana	3501.7	47.8	0.0	0.0	3829.8	52.2	0.0	0.0	0.0	0.0	7331.5
7. Himachal Pradesh	1306.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1306.0
8. Jammu & Kashmir	891.8	93.7	0.0	0.0	59.5	6.3	0.0	0.0	0.0	0.0	951.3
9. Karnataka	10820.0	63.2	74.0	0.4	6207.7	36.3	6.9	0.0	0.0	0.0	17108.6
10. Kerala	5040.0	97.2	28.0	0.5	115.2	2.2	0.0	0.0	0.0	0.0	5183.2
11. Madhya Pradesh	2323.9	11.9	0.0	0.0	17117.6	88.0	7.4	0.0	0.0	0.0	19448.9
12. Maharashtra	3637.1	6.7	1263.0	2.3	37974.2	70.1	11312.2	20.9	0.0	0.0	54186.5
13. Meghalaya	595.6	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	595.6
14. Orissa	3506.4	60.0	0.0	0.0	2333.5	40.0	0.0	0.0	0.0	0.0	5839.9
15. Punjab	7626.1	42.6	0.0	0.0	10274.0	57.4	0.0	0.0	0.0	0.0	17900.1
16. Rajasthan	3651.4	33.6	0.0	0.0	7201.3	66.4	0.0	0.0	0.0	0.0	10852.7
17. Tamil Nadu	5287.1	22.2	0.0	0.0	17779.4	74.6	761.0	3.2	0.0	0.0	23827.4
18. Uttar Pradesh	5410.0	22.7	0.0	0.0	18379.8	77.3	0.0	0.0	0.0	0.0	23789.8
19. West Bengal	296.9	2.0	0.0	0.0	10229.9	69.3	4227.9	28.7	0.0	0.0	14754.7
Sub-total :(I)	62998.7	23.4	1365.0	0.5	180137.3	66.9	24789.1	9.2	0.0	0.0	269290.1
II. EDs											
1. Arunachal Pradesh	69.3	77.6	0.0	0.0	20.0	22.4	0.0	0.0	0.0	0.0	89.3
2. Goa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Manipur	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7
4. Mizoram	4.0	0.0	0.0	0.0	14.2	0.0	0.0	0.0	0.0	0.0	18.3
5. Nagaland	2.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	2.3
6. Pondicherry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7. Sikkim	62.1	98.3	0.0	0.0	1.1	1.7	0.0	0.0	0.0	0.0	63.2
8. Tripura	43.9	14.6	0.0	0.0	257.6	85.4	0.0	0.0	0.0	0.0	301.5
Sub-total :(II)	181.3	38.2	0.0	0.0	293.9	61.8	0.0	0.0	0.0	0.0	475.2
III. CENTRAL SECTOR(III):	10036.7	6.6	0.0	0.0	131749.0	86.8	0.0	0.0	10082.6	6.6	151868.4
IV. OTHERS (IV) : *	0.0	0.0	0.0	0.0	113.6	100.0	0.0	0.0	0.0	0.0	113.6
Grand Total :	73216.7	17.4	1365.0	0.3	312293.8	74.0	24789.1	5.9	10082.6	2.4	421747.2

* The share of BBMB for Punjab, Haryana and Rajasthan is included in others.

Annexure 3.12**GROSS GENERATION (MKWH)
(1998-99)**

	SEB/COR.	Hydel (%)	PVT. (%)	(%)	SEB/COR.	Thermal (%)	PVT. (%)	(%)	Nuclear (%)	(%)	Total
I.States											
1. Andhra Pradesh	7586.0	23.7	0.0	0.0	21558.0	67.5	2813.0	8.8	0.0	0.0	31957.0
2. Assam	0.0	0.0	0.0	0.0	939.0	100.0	0.0	0.0	0.0	0.0	939.0
3. Bihar	183.0	4.3	0.0	0.0	4040.0	95.7	0.0	0.0	0.0	0.0	4223.0
4. Delhi(DVB)	0.0	0.0	0.0	0.0	2064.0	100.0	0.0	0.0	0.0	0.0	2064.0
5. Gujarat	1349.0	3.8	0.0	0.0	22847.0	64.5	11238.0	31.7	0.0	0.0	35434.0
6. Haryana	267.0	7.1	0.0	0.0	3487.0	92.9	0.0	0.0	0.0	0.0	3754.0
7. Himachal Pradesh	1458.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1458.0
8. Jammu & Kashmir	662.0	99.1	0.0	0.0	6.0	0.9	0.0	0.0	0.0	0.0	668.0
9. Karnataka	10303.0	60.4	75.0	0.4	6682.0	39.2	0.0	0.0	0.0	0.0	17060.0
10. Kerala	7316.0	96.1	45.0	0.6	252.0	3.3	0.0	0.0	0.0	0.0	7613.0
11. Madhya Pradesh	2795.0	13.3	0.0	0.0	18201.0	86.7	0.0	0.0	0.0	0.0	20996.0
12. Maharashtra	3704.0	6.5	1307.0	2.3	40839.0	71.9	10953.0	19.3	0.0	0.0	56803.0
13. Meghalaya	544.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	544.0
14. Orissa	3411.0	54.9	0.0	0.0	2803.0	45.1	0.0	0.0	0.0	0.0	6214.0
15. Punjab	3496.0	24.3	0.0	0.0	10897.0	75.7	0.0	0.0	0.0	0.0	14393.0
16. Rajasthan	1298.0	16.1	0.0	0.0	6766.0	83.9	0.0	0.0	0.0	0.0	8064.0
17. Tamil Nadu	4958.0	22.2	0.0	0.0	17261.0	77.1	161.0	0.7	0.0	0.0	22380.0
18. Uttar Pradesh	6138.0	24.7	0.0	0.0	18753.0	75.3	0.0	0.0	0.0	0.0	24891.0
19. West Bengal	357.0	2.3	0.0	0.0	10571.0	67.2	4814.0	30.6	0.0	0.0	15742.0
Sub-total :(I)	55825.0	20.3	1427.0	0.5	187966.0	68.3	29979.0	10.9	0.0	0.0	275197.0
II.EDs											
1. Arunachal Pradesh	16.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0
2. Goa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Manipur	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. Mizoram	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Nagaland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6. Pondicherry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7. Sikkim	26.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0
8. Tripura	57.0	16.6	0.0	0.0	287.0	83.4	0.0	0.0	0.0	0.0	344.0
Sub-total :(II)	99.0	25.6	0.0	0.0	287.0	74.4	0.0	0.0	0.0	0.0	386.0
III.CENTRAL SECTOR(III)	11233.0	7.1	0.0	0.0	135423.0	85.3	0.0	0.0	12015.0	7.6	158671.0
IV. OTHERS (IV) : *	14106.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14106.0
Grand Total :	81263.0	18.1	1427.0	0.3	323676.0	72.2	29979.0	6.7	12015.0	2.7	448360.0

* The share of BBMB for Punjab, Haryana and Rajasthan is included in others.

Annexure 3.13

**GROSS GENERATION (MKWH)
(1999-2000)**

	SEB/COR.	Hydel (%)	PVT.	(%)	SEB/COR.	Thermal (%)	PVT.	(%)	Nuclear (%)	Total	
I.States											
1. Andhra Pradesh	8637.0	24.4	0.0	0.0	23501.0	66.4	3248.0	9.2	0.0	0.0	35386.0
2. Assam	0.0	0.0	0.0	0.0	920.0	100.0	0.0	0.0	0.0	0.0	920.0
3. Bihar	206.0	5.7	0.0	0.0	3415.0	94.3	0.0	0.0	0.0	0.0	3621.0
4. Delhi(DVB)	0.0	0.0	0.0	0.0	2533.0	100.0	0.0	0.0	0.0	0.0	2533.0
5. Gujarat	1040.0	2.9	0.0	0.0	24266.0	66.8	10994.0	30.3	0.0	0.0	36300.0
6. Haryana	247.0	6.1	0.0	0.0	3792.0	93.9	0.0	0.0	0.0	0.0	4039.0
7. Himachal Pradesh	1194.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1194.0
8. Jammu & Kashmir	602.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	602.0
9. Karnataka	12080.0	58.1	63.0	0.3	8472.0	40.7	180.0	0.9	0.0	0.0	20795.0
10. Kerala	7039.0	91.9	33.0	0.4	579.0	7.6	5.0	0.1	0.0	0.0	7656.0
11. Madhya Pradesh	2463.0	10.9	0.0	0.0	20152.0	89.1	0.0	0.0	0.0	0.0	22615.0
12. Maharashtra	3819.0	6.1	1623.0	2.6	41530.0	66.9	15140.0	24.4	0.0	0.0	62112.0
13. Meghalaya	637.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	637.0
14. Orissa	4503.0	53.9	0.0	0.0	3159.0	37.8	694.0	8.3	0.0	0.0	8356.0
15. Punjab	3222.0	18.9	0.0	0.0	13837.0	81.1	0.0	0.0	0.0	0.0	17059.0
16. Rajasthan	995.0	10.8	0.0	0.0	8176.0	89.2	0.0	0.0	0.0	0.0	9171.0
17. Tamil Nadu	4432.0	17.7	0.0	0.0	19076.0	76.3	1478.0	5.9	0.0	0.0	24986.0
18. Uttar Pradesh	5292.0	21.7	0.0	0.0	19096.0	78.3	0.0	0.0	0.0	0.0	24388.0
19. West Bengal	396.0	2.4	0.0	0.0	10626.0	64.7	5409.0	32.9	0.0	0.0	16431.0
Sub-total :(I)	56804.0	19.0	1719.0	0.6	203130.0	68.0	37148.0	10.1	0.0	0.0	298801.0
II.EDs											
1. Arunachal Pradesh	13.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
2. Goa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Manipur	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. Mizoram	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Nagaland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6. Pondicherry	0.0	0.0	0.0	0.0	132.0	100.0	0.0	0.0	0.0	0.0	132.0
7. Sikkim	11.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
8. Tripura	61.0	19.6	0.0	0.0	251.0	80.4	0.0	0.0	0.0	0.0	312.0
Sub-total :(II)	85.0	18.2	0.0	0.0	383.0	81.8	0.0	0.0	0.0	0.0	468.0
III.CENTRAL SECTOR(III):	9839.0	5.8	0.0	0.0	146115.0	86.3	0.0	0.0	13267.0	7.8	169221.0
IV. OTHERS (IV) : *	12086.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12086.0
Grand Total :	78814.0	16.4	1719.0	0.4	349628.0	72.8	37148.0	7.7	13267.0	2.8	480576.0

Annexure 3.14

GROSS GENERATION (MKWH) - 2000-01

	SEB/COR.	Hydel (%)	PVT.	(%)	SEB/COR.	Thermal (%)	PVT.	(%)	Nuclear (%)	Total	
I.States											
1. Andhra Pradesh	7749	22	0	0	23933	67	3930	11	0	0	35612
2. Assam	0	0	0	0	936	88	130	12	0	0	1066
3. Bihar	144	4	0	0	3497	96	0	0	0	0	3641
4. Delhi(DVB)	0	0	0	0	2801	100	0	0	0	0	2801
5. Gujarat	438	1	0	0	25766	73	8916	25	0	0	35120
6. Haryana	243	6	0	0	3560	94	0	0	0	0	3803
7. Himachal Pradesh	1161	100	0	0	0	0	0	0	0	0	1161
8. Jammu & Kashmir	551	99	0	0	5	1	0	0	0	0	556
9. Karnataka	10728	50	109	1	9558	44	1196	6	0	0	21591
10. Kerala	6131	85	32	0	869	12	151	2	0	0	7183
11. Madhya Pradesh	1821	8	0	0	20428	92	0	0	0	0	22249
12. Maharashtra	3688	6	1146	2	42230	69	14123	23	0	0	61187
13. Meghalaya	657	100	0	0	0	0	0	0	0	0	657
14. Orissa	4602	55	0	0	3014	36	818	10	0	0	8434
15. Punjab	3143	18	0	0	14462	82	0	0	0	0	17605
16. Rajasthan	374	4	0	0	9887	96	0	0	0	0	10261
17. Tamil Nadu	5421	21	0	0	19683	74	1342	5	0	0	26446
18. Uttar Pradesh	5291	21	0	0	19474	79	0	0	0	0	24765
19. West Bengal	446	3	0	0	11312	63	6138	34	0	0	17896
Sub-total :(I)	52588	17	1287	0	211415	70	36744	12	0	0	302034
II.EDs											
1. Arunachal Pradesh	13	100	0	0	0	0	0	0	0	0	13
2. Goa	0	0	0	0	0	0	0	0	0	0	0
3. Manipur	0	0	0	0	0	0	0	0	0	0	0
4. Mizoram	0	0	0	0	0	0	0	0	0	0	0
5. Nagaland	0	0	0	0	0	0	0	0	0	0	0
6. Pondicherry	0	0	0	0	232	0	0	0	0	0	232
7. Sikkim	21	100	0	0	0	0	0	0	0	0	21
8. Tripura	70	22	0	0	242	78	0	0	0	0	312
Sub-total :(II)	104	18	0	0	474	82	0	0	0	0	578
III. CENTRAL SECTOR(III):	9945	5	0	0	159575	86	0	0	16896	9	186416
IV. OTHERS (IV) : *	10422	100	0	0	0	0	0	0	0	0	10422
Grand Total :	73059	15	1287	0	371464	74	36744	7	16896	3	499450

* The share of BBMB for Punjab, Haryana and Rajasthan is included in others.

Annexure 3.15

AUXILIARY CONSUMPTION

	(%)								
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	Actual	Actual	Actual	Actual	(Provi.)	(RE)	(AP)
I. SEBs									
1. Andhra Pradesh	5.36	5.35	5.66	6.71	6.14	6.87	7.01	7.41	7.30
2. Assam	9.81	8.54	8.09	8.88	8.74	9.32	7.63	6.70	6.14
3. Bihar	12.87	12.78	12.80	13.53	10.27	12.64	14.33	14.01	13.84
4. Delhi(DVB)	8.44	NA	8.84	9.09	8.94	8.68	8.85	8.94	7.91
5. Gujarat	10.39	10.04	9.66	9.25	8.26	9.52	9.58	9.73	9.79
6. Haryana	5.33	5.46	5.26	5.57	5.98	6.51	2.78	0.87	0.87
HPGC							11.27	11.49	11.56
7. Himachal Pradesh	0.35	0.27	0.24	0.20	0.30	0.26	0.25	0.23	0.33
8. Jammu & Kashmir	1.00	1.00	1.00	1.00	0.18	1.00	1.00	1.00	1.00
9. Karnataka SEB	0.12	1.47	1.60	2.02	2.59	2.47	2.31	2.59	2.64
KPC	3.30	3.69	3.51	4.08	5.51	3.69	3.79	4.18	4.50
10. Kerala	0.50	0.57	0.38	0.39	0.51	0.46	0.48	0.46	0.43
11. Madhya Pradesh	9.26	9.30	9.09	8.75	8.64	8.73	8.38	8.68	8.76
12. Maharashtra	7.91	7.89	7.53	7.64	5.73	7.46	7.40	8.03	7.90
13. Meghalaya	0.42	0.34	0.35	0.36	0.35	0.42	0.30	0.34	0.31
14. Orissa SEB	2.89	3.29	9.60	12.84					
OHPC				0.00	1.22	2.87	2.87	1.00	1.00
OPGC				12.82	11.42	11.53	10.23	10.69	10.65
15. Punjab	4.20	4.92	4.49	4.46	4.36	5.01	4.72	5.34	5.06
16. Rajasthan	7.33	7.51	7.10	7.48	7.16	7.52	7.52	7.31	7.70
17. Tamil Nadu	6.06	6.79	6.41	6.71	6.80	6.80	7.15	7.25	7.13
18. Uttar Pradesh	8.74	8.15	7.58	7.59	7.67	7.97	7.49	7.84	7.81
19. West Bengal SEB	11.14	10.73	10.90	12.03	10.91	11.66	12.14	11.67	10.56
WBPCDC	9.83	9.99	8.86	9.75	9.74	10.06	9.60	9.64	10.47
Average of SEBs :	6.91	6.96	7.44	7.11	6.57	7.15	7.04	7.28	7.25
Electricity Departments									
1. Arunachal Pradesh	7.90	6.80	6.45	8.49	7.62	7.63	7.51	6.79	7.92
2. Goa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Manipur	7.90	7.00	7.41	7.50	4.80	7.93	8.02	4.14	3.74
4. Mizoram	3.60	3.70	2.42	2.26	4.12	3.40	3.27	2.88	2.50
5. Nagaland	7.00	8.00	3.14	9.59	4.64	5.73	5.37	4.64	2.64
6. Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7. Sikkim	5.60	5.50	4.80	4.73	4.41	1.27	1.74	2.33	1.63
8. Tripura	3.50	1.90	1.74	1.80	1.78	1.85	1.83	1.84	1.85
Average of EDs :			3.39	3.79	3.53	2.94	2.69	2.63	2.72
Average - All States & UTs			7.07	7.17	6.56	7.14	7.03	7.27	7.24

Annexure 3.16

NET GENERATION OF ELECTRICITY

(MKwh)

	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Prov.	1999-2000 (RE)	2000-01 (AP)
I. SEBs									
1. Andhra Pradesh	16914	18242	19992	21023	24322	24631	25130	27394	26978
2. Assam	970	860	1166	1296	1215	936	855	905	1070
3. Bihar	2585	2594	2357	1994	2460	1782	2410	2137	2331
4. Delhi(DVB)	2227	NA	2099	2018	2061	2285	1918	2186	2683
5. Gujarat	18193	19102	22555	23453	24839	21545	20934	21847	22097
6. Haryana HPGC	7400	6183	6964	6787	7171	6659	5171	3864	3864
					0	0	3355	3297	3862
7. Himachal Pradesh	1084	974	1129	1283	1248	1303	1481	1286	1510
8. Jammu & Kashmir	793	791	878	797	795	942	706	650	990
9. Karnataka SEB KPC	843	938	16399	14969	939	1107	1101	1130	1180
	11517	12845	15006	13678	11236	15302	15322	18427	17600
10. Kerala	6158	5789	6546	6600	5482	5165	7565	7767	8629
11. Madhya Pradesh	12032	13044	15084	16000	16825	17744	18828	19469	20840
12. Maharashtra	28579	31419	43346	47190	50491	38531	41096	41726	43933
13. Meghalaya	428	582	376	541	484	593	554	598	518
14. Orissa OHPC	5014	4058	5611	5849	0	0	NA	NA	NA
			0	0	3626	3217	3217	2905	4342
OPGC			0	1061	1792	2065	2517	2828	2797
15. Punjab	14082	14626	16330	16072	17650	16231	18797	19762	20918
16. Rajasthan	7962	7888	8172	9210	9643	10024	10024	10223	11183
17. Tamil Nadu	15931	16458	18648	20475	22028	22028	20558	21430	22479
18. Uttar Pradesh	16579	18227	20069	21095	21825	21893	23054	23429	24353
19. West Bengal SEB WBPCDC	2552	3308	12848	12798	3350	3397	3194	3330	3600
	3862	4862	6119	5630	5581	5229	6048	6000	7700
Sub-total : (I)	175706	182790	220568	229449	212831	222609	233836	242590	255457
II. EDs									
1. Arunachal Pradesh	50	59	64	61	82	82	61	64	70
2. Goa	0	0	0	0	0	0	0	0	0
3. Manipur	4	3	3	4	2	1	1	3	36
4. Mizoram	19	15	20	14	14	18	17	22	33
5. Nagaland	4	2	3	3	3	2	2	3	5
6. Pondicherry	0	0	0	0	0	0	0	0	0
7. Sikkim	40	48	56	61	69	62	45	50	82
8. Tripura	170	151	171	191	248	297	338	353	376
Sub-total : (II)	286	278	317	334	417	463	464	495	601
Grand total :	175991	183069	220884	229783	213248	223071	234300	243085	256057

Annexure 3.17

*** PURCHASE OF POWER
(Gross)**

(MKwh)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000 (RE)	2000-01 (AP)
I. SEBs									
1. Andhra Pradesh	7194	8249	9129	8732	8508	11187	17224	40759	44252
2. Assam	1043	1235	1090	1146	1433	1747	1978	2070	2070
3. Bihar	4477	4998	6068	6860	7319	7982	8895	9867	10413
4. Delhi (DVB)	8085	NA	9693	10978	12261	11710	14262	15319	16409
5. Gujarat	5442	6896	7051	9798	11256	12655	15165	16590	17128
6. Haryana	4158	4985	4683	6112	6313	6644	8865	11139	12688
7. Himachal Pradesh	1013	1092	1452	1678	1833	2053	1976	2408	2394
8. Jammu & Kashmir	1983	2270	2283	2487	8508	3967	4723	4851	5449
9. Karnataka	15102	16316	18377	18450	17699	20486	21603	24450	24639
10. Kerala	1233	2020	2247	2638	3296	4236	3596	4679	6256
11. Madhya Pradesh	9553	10336	10774	12164	12819	12892	14306	15050	16735
12. Maharashtra	9036	9645	9584	13262	12862	14822	15500	19287	20821
13. Meghalaya	57	54	90	56	89	78	95	81	125
14. Orissa	2086	3769	4360	6267	9651	10324	10567	10230	11155
15. Punjab	3491	4027	4080	4972	5084	6647	6296	6153	6438
16. Rajasthan	6705	7512	8273	9986	10910	10931	10931	11300	11483
17. Tamil Nadu	7257	8058	9038	8750	10998	10998	13031	14321	14483
18. Uttar Pradesh	12824	12775	13331	14032	14009	14540	15809	16100	16640
19. West Bengal	5560	5874	6799	8459	8721	9024	10132	10500	11200
Sub-Total :(I)	106298	110111	128402	146826	163489	172923	194953	235155	250778
II. EDs									
1. Arunachal Pradesh	25	30	40	57	60	79	85	90	100
2. Goa	818	990	1007	1147	1269	1379	1502	1425	1588
3. Manipur	253	276	238	255	304	346	376	350	350
4. Mizoram	72	90	104	126	151	140	171	182	204
5. Nagaland	128	136	142	156	179	185	180	189	194
6. Pondicherry	826	833	976	982	982	1088	1222	1434	1578
7. Sikkim	24	23	27	42	52	53	73	70	45
8. Tripura	71	104	113	129	128	148	219	235	250
Sub-Total :(II)	2217	2483	2647	2893	3125	3419	3828	3976	4309
Grand Total :	108515	112594	131049	149720	166620	176342	198781	239130	255087

* Figures for 1994-95 onwards also include power received for wheeling and free supply of power received.

Annexure 3.18

PURCHASE OF POWER
* (Net)

(MKwh)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000 (RE)	2000-01 (AP)
I. SEBs									
1. Andhra Pradesh	7052.0	8127.0	8988.0	8592.0	8419.7	11041.0	17127.0	40759.0	44252.0
2. Assam	934.5	1205.0	1018.6	1126.9	1392.9	1741.7	1977.9	2070.0	2070.0
3. Bihar	4434.8	4978.0	6010.9	6807.1	7254.3	7853.3	8735.3	9733.4	10263.4
4. Delhi (DVB)	8084.9	NA	9693.2	10978.0	12261.2	11104.4	13956.9	15319.5	16409.4
5. Gujarat	5086.0	6830.0	7047.0	9795.0	11256.0	12655.0	15165.0	16590.0	17128.0
6. Haryana	4033.0	4557.0	4622.0	6078.0	6296.3	6553.0	8766.0	10745.0	12190.0
7. Himachal Pradesh	431.4	581.0	467.3	628.9	1100.8	1331.6	1273.8	1659.0	1639.0
8. Jammu & Kashmir	1983.0	2270.0	2283.0	2487.3	11256.0	3966.5	4723.4	4851.0	5449.0
9. Karnataka	15102.0	16316.0	18377.0	18450.0	17696.3	20486.0	21603.0	24450.0	24639.0
10. Kerala	1127.5	2020.0	2247.2	2638.1	3296.0	4236.2	3595.6	4679.0	6256.2
11. Madhya Pradesh	8979.3	10209.0	10425.4	11969.8	12649.9	12708.5	14130.0	14874.0	16559.0
12. Maharashtra	8709.0	9458.0	6981.0	10769.0	12159.0	14567.0	14429.0	18687.0	20021.0
13. Meghalaya	-138.2	-266.0	-27.1	-180.1	-82.0	-155.3	-73.8	-82.8	15.0
14. Orissa	2077.0	3769.0	4360.0	6267.0	9651.0	10324.0	10567.0	10230.0	11155.0
15. Punjab	3050.0	3277.0	3555.6	4636.0	4623.0	5693.0	4930.6	4853.0	5138.0
16. Rajasthan	6065.0	7036.0	7959.2	9518.0	10596.3	10456.3	10456.3	10900.0	11083.0
17. Tamil Nadu	7115.0	7914.0	8881.0	8602.0	10795.0	10795.0	12826.0	14102.0	14256.0
18. Uttar Pradesh	12389.0	12775.0	12914.0	13562.0	13560.0	14065.0	15275.0	15566.0	16106.0
19. West Bengal	5388.0	5343.0	6294.1	7902.9	8706.2	9017.9	10126.4	10494.3	11193.6
Sub-Total :(I)	101903.2	106399.0	122097.3	140627.8	160041.6	168440.1	189590.4	230479.4	245822.7
II. EDs									
1. Arunachal Pradesh	24.9	30.4	40.2	57.4	60.0	78.8	84.8	90.0	100.0
2. Goa	772.6	888.6	964.8	1124.1	1269.2	1350.5	1443.9	1377.0	1552.0
3. Manipur	252.5	276.4	238.3	255.0	303.8	346.3	375.6	350.1	350.1
4. Mizoram	72.3	90.1	104.4	125.6	150.6	140.3	170.7	182.5	203.6
5. Nagaland	128.3	136.4	141.6	156.1	179.0	184.9	179.8	188.8	194.5
6. Pondicherry	825.5	833.0	976.1	981.9	982.4	1088.0	1222.2	1434.2	1577.6
7. Sikkim	24.4	22.9	27.1	41.6	52.2	53.4	73.1	70.0	45.0
8. Tripura	66.1	103.5	112.5	128.8	128.2	139.1	166.2	182.2	197.2
Sub-Total :(II)	2166.6	2381.3	2604.9	2870.4	3125.3	3381.3	3716.4	3874.7	4219.9
Grand Total :	104069.8	108780.3	124702.2	143498.2	163172.1	171821.4	193306.8	234354.1	250042.6

* (Gross - Sale outside the State)

Annexure 3.19

* PURCHASE OF POWER BY MAJOR SOURCES

(Mkwh)

	1995-96		1996-97		1997-98		1998-99		1999-2000		2000-01	
	Central Sector	Others	Central Sector	Others	Central Sector	Others	Central Sector	Others	Central Sector	Others	Central Sector	Others
I. SEBs												
1. Andhra Pradesh	7814.0	918.0	7453.1	1055.0	8632.0	2555.0	7844.0	9380.0	9189.0	31570.0	10411.0	33841.0
2. Assam	931.9	214.5	957.2	475.5	1034.8	712.3	1325.5	652.4	1790.0	280.0	1790.0	280.0
3. Bihar	6746.2	113.5	6703.1	615.5	6594.3	1388.0	7274.0	1621.0	8754.1	1113.1	8812.5	1600.0
4. Delhi (DVB)	10905.2	72.8	11678.1	583.1	11661.7	48.2	14262.3	0.0	14771.4	548.1	15779.6	629.9
5. Gujarat	8978.0	820.0	9481.0	1775.0	9738.0	2917.0	8789.0	6376.0	6568.0	10022.0	5897.0	11231.0
6. Haryana	5929.0	183.0	5955.1	357.6	6203.0	441.0	8459.0	406.0	10953.0	186.0	12437.0	251.0
7. Himachal Pradesh	1094.6	583.4	1000.1	833.1	1151.4	901.7	945.1	1031.0	1288.0	1120.0	1197.0	1197.0
8. Jammu & Kashmir	2355.5	131.8	3048.5	0.0	3918.0	48.5	4678.8	44.6	4800.0	51.0	5379.0	70.0
9. Karnataka	4490.0	13960.0	5793.0	11906.0	5022.0	15464.0	5549.0	16054.0	5555.0	18895.0	4800.0	19839.0
10. Kerala	2638.1	0.0	3296.0	0.0	4201.2	35.0	3300.5	295.0	4292.0	387.0	5890.2	366.0
11. Madhya Pradesh	11680.8	483.2	11887.0	932.2	11500.0	1392.3	13309.7	996.6	14158.0	892.0	15835.0	900.0
12. Maharashtra	8705.0	4557.0	8413.0	4449.0	10702.0	4120.0	11440.0	4060.0	11088.0	8199.0	11088.0	9733.0
13. Meghalaya	55.6	0.0	89.3	0.0	78.4	0.0	94.5	0.0	81.0	0.0	125.0	0.0
14. Orissa	2511.0	3756.0	2888.0	6763.0	4091.0	6233.0	2927.2	7639.8	3384.0	6846.0	2380.0	8775.0
15. Punjab	4506.0	466.0	5007.0	77.0	6078.0	569.0	5676.0	620.0	5551.0	602.0	5704.0	734.0
16. Rajasthan	9080.3	905.3	8625.5	2284.4	9965.2	965.4	9965.2	965.4	10740.0	560.0	10900.0	583.0
17. Tamil Nadu	8740.0	10.0	10005.0	993.0	10005.0	993.0	10675.0	2356.0	10013.0	4308.0	10443.0	4040.0
18. Uttar Pradesh	13357.0	675.0	13398.0	611.0	14257.0	283.0	15450.0	359.0	16023.0	77.0	16540.0	100.0
19. West Bengal	2284.0	6174.9	2449.2	6271.6	3176.7	5847.4	3689.2	6442.4	3960.0	6540.0	2900.0	8300.0
Sub-Total :(I)	112802.2	34024.2	118127.1	44999.8	128009.7	44913.8	135654.1	59299.2	142958.5	92196.2	148308.3	102469.9
II. EDs												
1. Arunachal Pradesh	57.4	0.0	60.0	0.0	78.8	NA	84.8	NA	90.0	NA	100.0	NA
2. Goa	1146.8	0.0	1269.1	0.0	1379.1	0.1	1502.2	0.1	1231.0	194.0	1276.0	312.0
3. Manipur	254.9	0.1	281.0	22.8	342.3	4.0	347.1	28.6	350.0	0.1	350.0	0.1
4. Mizoram	110.6	15.0	144.2	6.4	126.4	13.9	117.3	53.4	129.9	52.6	136.6	67.0
5. Nagaland	136.4	19.7	156.1	22.8	161.7	23.3	179.8	0.0	188.8	0.0	194.5	0.0
6. Pondicherry	786.8	195.1	764.2	218.2	841.9	246.1	916.2	306.0	1122.1	312.1	1234.4	343.3
7. Sikkim	41.6	0.0	36.1	16.3	53.4	0.0	73.1	0.0	70.0	0.0	45.0	0.0
8. Tripura	127.7	1.1	128.2	0.0	143.6	4.1	219.1	0.0	234.5	0.5	249.5	0.5
Sub-Total :(II)	2662.1	231.0	2839.0	286.4	3127.1	291.6	3439.6	388.1	3416.3	559.3	3585.9	722.9
Grand Total :	115464.4	34255.3	120966.1	45291.3	131136.7	45205.4	139093.7	59687.3	146374.8	92755.5	151894.2	103192.7

Annexure 3.20**SHARE OF PURCHASE IN TOTAL SALE**

(%)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 (RE)	1999-2000 (AP)	2000-01
I. SEBs									
1. Andhra Pradesh	37.10	38.60	39.53	37.06	40.45	46.72	68.32	148.09	147.08
2. Assam	65.60	74.50	64.56	63.54	73.08	93.08	74.34	110.46	101.47
3. Bihar	79.70	81.30	94.99	104.82	106.76	108.79	101.52	106.13	104.19
4. Delhi(DVB)	101.10	NA	141.69	163.75	178.72	147.19	174.60	182.22	159.95
5. Gujarat	29.40	33.70	32.75	39.68	42.16	47.25	52.61	53.68	54.18
6. Haryana	48.20	59.90	57.09	69.89	69.66	74.95	95.43	118.94	119.80
7. Himachal Pradesh	60.80	65.50	69.40	63.40	67.38	70.78	65.10	74.12	69.67
8. Jammu & Kashmir	130.50	141.90	136.21	143.94	153.87	153.87	164.37	166.42	160.41
9. Karnataka SEB	116.50	116.20	115.53	115.43	116.49	116.49	135.82	136.55	136.33
10. Kerala	21.10	32.40	31.97	35.58	46.95	55.26	39.37	45.92	51.25
11. Madhya Pradesh	56.90	55.70	51.48	52.99	54.17	52.38	53.66	54.98	56.02
12. Maharashtra	28.70	27.90	25.39	31.87	30.12	33.77	33.46	38.34	39.36
13. Meghalaya	13.50	9.50	23.71	10.91	19.34	14.23	18.25	14.99	24.43
14. Orissa	38.40	62.90	90.49	121.01	197.91	196.99	193.96	105.83	105.82
15. Punjab	24.40	26.50	25.82	30.29	28.61	35.34	30.17	28.54	28.31
16. Rajasthan	60.70	65.40	67.34	72.87	77.57	71.07	71.07	69.13	65.02
17. Tamil Nadu	37.90	39.70	39.14	35.55	42.86	40.82	46.77	48.20	47.00
18. Uttar Pradesh	57.50	53.70	51.65	51.77	51.81	53.59	55.23	54.67	54.50
19. West Bengal SEB	89.80	82.40	85.30	94.50	90.39	92.18	102.06	105.44	105.11
All SEBs	50.40	50.30	52.78	56.28	61.63	61.79	65.98	74.29	74.21
II. EDs									
1. Arunachal Pradesh	50.80	49.70	55.83	76.51	60.45	70.82	85.16	85.43	84.76
2. Goa	126.30	127.90	135.34	139.84	136.39	130.52	141.09	133.68	131.57
3. Manipur	127.30	128.00	111.34	103.24	106.08	107.49	208.76	135.95	105.07
4. Mizoram	110.50	85.80	121.34	123.10	120.98	167.62	166.12	155.01	148.47
5. Nagaland	143.90	143.60	141.61	141.95	140.52	140.22	139.07	136.61	135.30
6. Pondicherry	119.00	118.40	117.60	116.89	116.20	116.00	115.56	115.29	114.94
7. Sikkim	48.10	41.00	41.02	51.36	60.85	57.78	72.29	66.16	44.42
8. Tripura	42.40	58.10	56.80	57.50	49.43	46.97	48.81	55.47	55.50
All EDs	113.00	113.40	114.59	115.77	113.29	89.74	120.21	114.96	111.53
All India	51.00	50.90	53.36	56.85	62.16	62.17	66.56	74.73	74.63

Annexure 3.21**PURCHASE OF POWER FROM CENTRAL SECTOR
AS PERCENTAGE OF TOTAL PURCHASE**

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 (RE)	(MKwh) 1999-2000 (AP)	2000-01
I. SEBs									
1. Andhra Pradesh	93.80	92.30	92.55	89.49	87.60	77.16	45.54	22.54	23.53
2. Assam	74.20	65.40	88.35	81.29	66.81	59.23	67.02	86.47	86.47
3. Bihar	98.20	98.60	97.48	98.35	91.59	82.61	81.78	88.72	84.63
4. Delhi(DVB)	91.90	NA	100.00	99.34	95.24	99.59	100.00	96.42	96.16
5. Gujarat	88.20	93.80	94.40	91.63	84.23	76.95	57.96	39.59	34.43
6. Haryana	89.30	95.50	97.39	97.01	94.33	93.36	95.42	98.33	98.02
7. Himachal Pradesh	64.10	74.00	48.26	65.23	54.55	56.08	47.83	53.49	50.00
8. Jammu & Kashmir	95.50		95.44	94.70	87.60	98.78	99.06	98.95	98.72
9. Karnataka SEB	24.00	21.50	18.47	24.34	32.73	24.51	25.69	22.72	19.48
10. Kerala	100.00	100.00	100.00	100.00	100.00	99.17	91.79	91.73	94.15
11. Madhya Pradesh	95.10	100.00	97.46	96.03	92.73	89.20	93.03	94.07	94.62
12. Maharashtra	71.90	65.00	65.40	65.64	65.41	72.20	73.81	57.49	53.25
13. Meghalaya	0.00	92.80	87.23	100.00	100.00	100.00	100.00	100.00	100.00
14. Orissa	60.10	35.50	30.89	40.07	29.92	39.63	27.70	33.08	21.34
15. Punjab	98.20	93.10	96.00	90.63	98.49	91.44	90.15	90.22	88.60
16. Rajasthan	83.80	86.00	89.52	90.93	79.06	91.17	91.17	95.04	94.92
17. Tamil Nadu	99.90	99.50	99.89	99.89	90.97	90.97	81.92	69.92	72.11
18. Uttar Pradesh	99.70	96.50	94.37	95.19	95.64	98.05	97.73	99.52	99.40
19. West Bengal SEB	13.10	9.10	13.91	27.00	28.08	35.20	36.41	37.71	25.89
All SEBs	77.00	74.50	75.41	76.83	72.25	74.03	69.58	60.79	59.14
II. EDs									
1. Arunachal Pradesh	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
2. Goa	100.00	100.00	100.00	100.00	100.00	99.99	99.99	86.38	80.35
3. Manipur	97.70	99.90	99.97	99.96	92.51	98.83	92.39	99.98	99.98
4. Mizoram	97.00	100.00	92.00	88.09	95.77	90.07	68.70	71.17	67.09
5. Nagaland	80.10	100.00	88.72	87.36	87.25	87.42	100.00	100.00	100.00
6. Pondicherry	78.40	79.70	79.94	80.13	77.79	77.38	74.96	78.24	78.24
7. Sikkim	100.00	100.00	100.00	100.00	68.89	100.00	100.00	100.00	100.00
8. Tripura	69.30	98.10	96.51	99.15	100.00	97.20	100.00	99.79	99.80
All EDs	89.50	93.10	91.53	92.01	90.84	91.47	89.86	85.93	83.22
All India	77.30	74.90	75.74	77.12	72.60	74.36	69.97	61.21	59.55

Annexure 3.22

**PURCHASE OF POWER FROM CENTRAL SECTOR
AS PERCENTAGE OF AVAILABILITY**

	(%)								
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99 (RE)	1999-2000 (AP)	2000-01
I. SEBs									
1. Andhra Pradesh	28.00	28.70	29.17	26.42	23.29	23.64	20.22	21.80	22.81
2. Assam	38.40	38.50	42.87	38.15	36.69	38.56	46.79	60.17	57.01
3. Bihar	62.30	64.90	70.36	76.41	73.08	67.03	63.93	72.50	68.78
4. Delhi(DVB)	72.00	NA	82.33	83.91	85.52	80.25	89.18	85.52	84.60
5. Gujarat	20.30	24.90	24.73	29.28	27.21	28.47	24.35	17.09	15.03
6. Haryana	32.10	42.60	39.76	46.55	45.88	46.63	60.27	72.96	75.14
7. Himachal Pradesh	31.00	39.10	24.90	34.11	32.65	32.07	25.48	32.66	28.82
8. Jammu & Kashmir	68.20	68.10	69.00	70.08	76.70	79.82	86.17	87.26	84.71
9. Karnataka SEB	22.70	20.30	17.37	22.89	30.87	23.26	24.44	21.72	18.59
10. Kerala	16.70	25.90	25.55	28.45	37.00	44.72	35.94	41.91	48.06
11. Madhya Pradesh	42.00	44.20	40.60	41.46	40.45	37.54	40.17	41.02	42.14
12. Maharashtra	17.30	15.30	13.24	16.84	14.33	19.28	18.99	17.48	16.54
13. Meghalaya	0.00	7.90	16.83	8.98	15.57	11.68	14.57	11.93	19.43
14. Orissa	17.70	17.10	15.86	25.72	28.06	39.63	27.70	33.08	21.34
15. Punjab	19.50	20.10	20.17	22.46	22.66	26.57	22.62	21.42	20.85
16. Rajasthan	38.30	42.00	45.09	47.36	45.45	47.61	47.61	46.35	48.14
17. Tamil Nadu	31.30	32.70	32.49	29.51	30.88	30.88	31.84	28.05	28.30
18. Uttar Pradesh	43.50	39.80	37.71	38.03	41.35	39.13	39.76	40.53	40.63
19. West Bengal SEB	9.00	5.90	9.33	20.24	20.29	25.57	27.68	28.63	19.59
All SEBs	29.00	29.80	30.90	33.35	33.10	34.34	34.21	34.02	33.45
II. EDs									
1. Arunachal Pradesh	33.40	33.90	38.65	48.63	47.20	48.87	58.05	58.50	58.83
2. Goa	100.00	100.00	100.09	100.07	99.92	99.99	99.99	86.38	80.35
3. Manipur	96.40	98.80	86.93	80.92	75.61	83.38	78.94	84.39	78.55
4. Mizoram	77.10	85.40	77.36	79.00	88.19	80.01	62.62	63.44	57.78
5. Nagaland	77.90	98.90	87.25	86.34	88.73	86.42	98.74	98.61	101.48
6. Pondicherry	78.40	79.70	79.95	80.12	74.68	77.38	74.96	78.24	78.24
7. Sikkim	37.70	32.20	32.23	40.78	29.66	46.15	69.52	58.19	35.53
8. Tripura	20.50	39.90	38.36	39.91	33.17	32.27	39.35	39.86	39.88
All EDs	79.20	83.70	80.90	81.14	78.00	79.27	79.22	75.37	72.27
All India	29.50	30.40	31.37	33.81	33.55	34.81	34.70	34.46	33.88

Annexure 3.23

Transmission & Distribution Losses

(Mkwh)

I. SEBs		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
		Actual	Actual	Actual	Actual	Actual	Prov.	(R.E.)	(Plan Est)	
1	Andhra Pradesh	4681	5117	5486	5575	10589	11863	12375	13237	14164
2	Assam	423	436	559	639	688	807	1080	1101	1100
3	Bihar	1448	1443	2020	2286	2317	2500	2617	2777	2819
4	Delhi	2416	N.A.	N.A.	6293	6779	6148	7868	8118	8394
5	Gujarat	4994	5530	539	5963	7463	7417	7272	7534	7610
6	Haryana	2933	2852	3269	3993	4254	4439	4746	4053	4138
7	Himachal Pradesh	433	400	450	562	564	690	673	695	718
8	Jammu & Kashmir	1256	1461	1482	1634	1986	2330	2556	2586	2953
9	Karnataka	2982	3209	3685	3628	3539	4007	6798	7674	7746
10	Kerala	1552	1575	1767	1860	1904	1679	1962	2165	2555
11	Madhya Pradesh	4801	4279	4918	5216	6051	6024	6476	7145	7703
12	Maharashtra	6161	6502	7218	7935	10398	9505	10342	10775	11164
13	Meghalaya	59	68	87	110	112	120	131	139	130
14	Orissa	1669	1832	2023	4583	5186	5084	5120	564	614
15	Punjab	3286	3444	3559	3652	4187	4069	4224	4357	4613
16	Rajasthan	3589	3878	4100	5427	4911	5551	5551	6827	4981
17	Tamil Nadu	4058	4230	4698	5011	5501	5458	5667	5978	6089
18	Uttar Pradesh	7086	7192	7553	8017	9058	9303	10237	10080	10178
19	West Bengal	1922	2055	2142	2331	2424	2484	3398	3872	4144
Sub-Total : (I)		55749	55503	55555	74714	87911	89478	99092	99676	101813
II Eds										
1	Arunachal Pradesh	26	28	32	43	41	31	31	32	31
2	Goa	170	216	263	327	299	323	437	347	381
3	Manipur	58	63	60	68	85	88	260	166	134
4	Mizoram	26	30	33	38	56	74	85	87	95
5	Nagaland	43	44	44	48	54	55	53	55	56
6	Pondicherry	132	129	147	142	178	150	165	190	205
7	Sikkim	14	15	18	21	36	23	21	24	25
8	Tripura	74	76	85	96	111	130	159	165	175
Sub-Total : (II)		542	602	683	782	860	875	1210	1065	1101
Total : (I) + (II)		56291	56105	56238	75496	88771	90354	100302	100741	102914

Annexure 3.24**T & D Losses as percentage of Availability**

(%)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	Actual	Actual	Actual	Actual	Provis.	(R.E.)	(Plan Est)
1. SEBs									
1 Andhra Pradesh	19.20	19.10	18.90	18.90	33.09	32.49	31.90	31.41	31.04
2 Assam	21.00	20.80	24.90	26.20	26.37	30.06	38.13	37.01	35.03
3 Bihar	20.50	19.00	24.00	25.90	25.26	25.41	23.00	23.00	22.00
4 Delhi	23.40	N.A.	N.A.	48.00	49.64	42.31	49.20	47.00	45.00
5 Gujarat	21.10	21.30	20.00	18.30	21.42	21.69	20.14	19.60	19.40
6 Haryana	25.40	25.50	28.50	31.40	32.77	33.37	33.81	27.00	25.00
7 Himachal Pradesh	18.50	17.30	17.40	17.50	18.41	19.21	18.15	17.62	17.28
8 Jammu & Kashmir	45.30	47.70	46.90	48.60	49.97	47.48	47.07	47.01	46.50
9 Karnataka	18.70	18.60	18.90	18.50	18.86	18.56	29.94	30.00	30.00
10 Kerala	21.00	20.20	20.10	20.10	21.37	17.87	21.36	21.14	20.85
11 Madhya Pradesh	22.20	20.20	20.10	19.50	20.59	19.66	19.54	20.70	20.50
12 Maharashtra	16.40	15.80	15.30	15.40	17.72	17.12	17.17	16.99	16.65
13 Meghalaya	12.20	10.70	18.70	17.80	19.48	17.93	20.14	20.41	20.25
14 Orissa (GRIDCO)	23.50	23.40	23.80	46.90	50.38	49.24	48.45	6.00	6.00
15 Punjab	18.70	18.50	18.30	18.20	18.95	17.79	16.83	16.81	16.86
16 Rajasthan	24.50	25.20	25.00	28.50	25.88	26.52	26.52	29.46	22.00
17 Tamil Nadu	17.50	17.30	16.90	17.00	16.98	16.85	16.90	16.75	16.50
18 Uttar Pradesh	24.10	23.20	22.60	22.80	27.96	25.53	26.34	25.50	25.00
19 West Bengal	23.70	22.40	21.10	20.70	20.08	20.00	25.50	28.00	28.00
Average : (I)	19.80	20.20	20.20	22.20	24.63	24.00	24.99	23.72	22.96
II EDs									
1 Arunachal Pradesh	34.90	31.60	31.00	36.00	32.62	19.21	21.27	20.47	18.00
2 Goa	20.80	21.80	26.20	28.50	23.54	23.39	29.12	24.33	23.99
3 Manipur	22.50	22.50	22.00	21.50	22.95	21.52	59.07	40.00	30.00
4 Mizoram	28.10	28.00	28.00	27.00	34.35	47.00	45.12	42.50	40.00
5 Nagaland	32.40	31.60	30.80	30.00	30.51	29.50	29.00	28.50	29.17
6 Pondicherry	16.00	15.50	15.00	14.50	17.38	13.79	13.46	13.26	13.00
7 Sikkim	21.80	21.50	21.20	21.00	29.24	20.13	20.06	20.03	20.02
8 Tripura	30.50	30.00	30.00	30.00	28.76	29.33	28.50	28.00	28.00
Average : (II)	21.60	21.80	22.80	23.80	23.63	22.19	27.87	23.49	22.20
Overall Average(I&II)	19.80	20.20	20.30	22.20	24.62	23.99	25.02	23.72	22.95
All India*	19.80	20.20	21.13	22.27	24.53	24.79	NA	NA	NA

Note:- I) * The All India figure is as estimated by the CEA. This includes the system losses in A&N Islands, Lakshadweep, Chandigarh, Losses in the CPU power systems and areas served by the DVC.

ii) The losses indicated in case of Orisa indicate only transmission losses. The estimates for Distribution loss are not available.

Annexure 3.25

Sale of Power

(Mkwh)

I. SEBs		1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
		Actual	Actual	Actual	Actual	Actual	Actual	Provi.	(RE)	(AP)
1	Andhra Pradesh	19386	21346	23096	23562	21033	23944	25211	27523	30088
2	Assam	1590	1658	1689	1804	1960	1877	2661	1874	2040
3	Bihar	5614	6149	6387	6544	6855	7337	8762	9297	9994
4	Delhi (DVB)	7996	NA	6841	6704	6860	7956	8168	8407	10259
5	Gujarat	18501	20468	21529	24695	26696	26783	28828	30904	31616
6	Haryana	8625	8316	8203	8745	9062	8864	9290	9365	10591
7	Himachal Pradesh	1665	1667	2092	2447	2721	2901	3036	3249	3436
8	Jammu & Kashmir	1520	1600	1676	1728	1988	2578	2874	2915	3397
9	Karnataka	12963	14045	15907	15984	15194	17586	15906	17906	18073
10	Kerala	5839	6234	7028	7415	7021	7666	9134	10190	12206
11	Madhya Pradesh	16784	18561	20946	22957	23664	24612	26660	27374	29872
12	Maharashtra	31454	34562	37763	41619	42698	43894	46328	50300	52900
13	Meghalaya	426	568	379	509	462	551	518	540	512
14	Orissa	5431	5995	4818	5179	4877	5241	5448	9666	10541
15	Punjab	14288	15209	15804	16412	17767	18808	20869	21558	22743
16	Rajasthan	11044	11486	12286	13703	14065	15380	15380	16346	17660
17	Tamil Nadu	19130	20286	23093	24610	25659	26943	27862	29713	30813
18	Uttar Pradesh	22314	23810	25810	27107	27041	27130	28626	29449	30534
19	West Bengal	6190	7127	7998	8951	9647	9790	9927	9958	10656
Sub-Total-I(SEBs)		210760	219087	243345	260674	265272	279841	295487	316535	337931
II Eds										
1	Arunachal Pradesh	49	61	72	75	99	111	100	105	118
2	Goa	647	774	744	820	931	1057	1065	1066	1207
3	Manipur	198	216	214	247	286	322	180	258	333
4	Mizoram	65	105	119	102	124	84	103	118	137
5	Nagaland	89	95	100	110	127	132	129	138	144
6	Pondicherry	694	704	830	840	845	938	1058	1244	1373
7	Sikkim	51	56	66	81	86	92	101	106	101
8	Tripura	168	178	198	224	259	314	449	424	450
9	Others						759			
Sub-Total-II(EDs)		1961	2189	2343	2499	2759	3810	3184	3458	3863
Grand Total: (I+II)		212721	221276	245688	263173	268031	283650	298671	319993	341794

Annexure 3.26**CONSUMER CATEGORYWISE SALE OF POWER, 1996-97**

(Mkwh)

	Domestic	Commer- cial	Agri/ irrig.	Industry	Railway traction	Outside the State/UT	Others	Total
I. SEBs								
1 Andhra Pradesh	3801.0	795.0	7835.0	6805.0	687.0	88.4	1022.0	21033.4
2 Assam	575.5	168.9	45.6	521.5	0.0	39.9	671.2	1960.4
3 Bihar	873.1	347.5	1268.1	3694.7	415.1	64.4	192.5	6855.5
4 Delhi (DVB)	3088.5	1930.0	48.0	1314.0	65.0	-	415.0	6860.5
5 Gujarat	2250.0	631.0	10070.0	9817.0	344.0	0.0	2473.0	26696.0
6 Haryana	1794.0	288.0	4089.0	1948.0	108.0	16.4	819.0	9062.4
7 Himachal Pradesh	426.8	120.6	11.4	1060.0	0.0	732.5	369.8	2720.9
8 Jammu & Kashmir	514.0	307.2	336.3	257.6	0.0	18.4	555.0	1988.5
9 Karnataka	2897.0	449.0	6914.0	3959.0	28.0	0.0	947.0	15194.0
10 Kerala	3404.4	650.1	329.3	2229.1	0.0	0.0	407.9	7020.8
11 Madhya Pradesh	3739.5	677.6	8571.7	7503.4	1155.6	169.3	1847.0	23664.0
12 Maharashtra	4897.0	1129.0	13867.0	14712.0	826.0	703.0	6564.0	42698.0
13 Meghalaya	93.4	42.8	1.4	60.6	0.0	171.3	92.4	461.9
14 Orissa	1353.0	310.0	159.0	2437.0	184.0	0.0	433.5	4876.5
15 Punjab	3094.0	655.0	6348.0	6872.0	0.0	461.0	337.0	17767.0
16 Rajasthan	2171.1	750.9	4737.4	4932.3	182.2	313.5	978.0	14065.4
17 Tamil Nadu	4181.0	1676.0	6678.0	10331.0	357.0	207.0	2229.0	25659.0
18 Uttar Pradesh	6555.0	1902.0	9800.0	6290.0	846.0	449.0	1199.0	27041.0
19 West Bengal	1930.7	761.5	1365.9	2236.3	466.8	273.3	2613.1	9647.4
Sub-total :(I)	47638.9	13592.1	82474.9	86980.5	5664.7	3707.3	25214.2	265272.5
II EDs								
1 Arunachal Pradesh	72.6	7.1	0.0	8.9	0.0	0.0	10.7	99.3
2 Goa	219.4	73.7	10.4	583.8	0.0	0.0	43.2	930.5
3 Manipur	131.7	18.6	7.2	55.8	0.0	0.0	73.0	286.4
4 Mizoram	92.5	12.8	0.0	0.8	0.0	0.0	18.3	124.4
5 Nagaland	71.4	9.0	0.0	20.5	0.0	0.1	26.3	127.4
6 Ponicherry	126.5	43.9	94.4	559.5	0.0	0.0	21.1	845.4
7 Sikkim	48.7	13.5	0.0	9.5	0.0	0.2	14.2	86.1
8 Tripura	98.6	18.2	59.7	20.8	0.0	0.0	62.2	259.4
Sub-total :(II)	861.5	196.8	171.7	1259.7	0.0	0.3	269.0	2758.9
Grand Total :	48500.4	13788.9	82646.6	88240.1	5664.7	3707.6	25483.2	268031.4

Annexure 3.27**CONSUMER CATEGORYWISE SALE OF POWER, 1997-98**

(Mkwh)

	Domestic	Commer- cial	Agri/ irrig.	Industry	Railway traction	Outside the State/UT	Others	Total
I. SEBs								
1 Andhra Pradesh	4535.0	927.0	9336.0	6824.0	850.0	146.0	1326.0	23944.0
2 Assam	556.1	166.2	25.3	452.8	0.0	5.3	671.2	1876.9
3 Bihar	880.8	429.9	1483.0	3756.9	439.2	129.1	218.4	7337.3
4 Delhi (DVB)	3020.4	855.7	59.6	1867.2	142.5	605.5	1404.9	7955.8
5 Gujarat	2411.0	683.0	10757.0	9817.0	349.0	0.0	2766.0	26783.0
6 Haryana	1821.0	317.0	3843.0	1934.0	114.0	91.0	744.0	8864.0
7 Himachal Pradesh	474.4	134.9	10.5	1182.5	0.0	721.5	377.0	2900.7
8 Jammu & Kashmir	652.7	125.5	439.2	313.7	0.0	0.0	1046.8	2577.9
9 Karnataka	3170.0	535.0	9117.0	3744.0	56.0	0.0	964.0	17586.0
10 Kerala	3726.5	652.4	340.7	2515.0	8.6	0.0	422.7	7665.8
11 Madhya Pradesh	4044.8	692.3	9660.0	6754.4	1256.3	183.9	2020.1	24611.7
12 Maharashtra	5341.0	1139.0	15382.0	14667.0	861.0	255.0	6249.0	43894.0
13 Meghalaya	121.1	37.1	1.4	49.1	0.0	233.7	108.6	551.1
14 Orissa	1557.0	309.0	194.0	2599.0	168.0	0.0	414.0	5241.0
15 Punjab	3368.0	718.0	6050.0	7209.0	0.0	954.0	509.0	18808.0
16 Rajasthan	2436.0	868.8	4980.4	5535.0	206.5	474.3	879.5	15380.4
17 Tamil Nadu	4270.0	1683.0	7275.0	10791.0	391.0	203.0	2330.0	26943.0
18 Uttar Pradesh	7273.0	1926.0	9455.0	6056.0	858.0	475.0	1087.0	27130.0
19 West Bengal	2091.2	931.0	1472.0	2444.7	483.1	19.0	2349.1	9790.0
Sub-total :(I)	51750.0	13130.6	89881.1	88512.2	6183.2	4496.3	25887.3	279840.7
II EDs								
1 Arunachal Pradesh	81.4	8.0	0.0	10.0	0.0	0.0	12.0	111.3
2 Goa	243.9	71.9	11.2	611.0	0.0	28.7	89.9	1056.7
3 Manipur	157.9	20.9	8.1	51.5	0.0	0.0	83.8	322.2
4 Mizoram	64.5	7.0	0.0	0.9	0.0	0.0	11.4	83.7
5 Nagaland	75.4	9.1	0.0	20.7	0.0	0.0	26.8	131.9
6 Ponicherry	144.5	48.2	95.1	626.1	0.0	0.0	23.9	937.9
7 Sikkim	48.9	14.0	0.0	14.0	0.0	0.0	15.7	92.5
8 Tripura	119.3	27.5	61.2	36.7	0.0	8.6	61.2	314.4
Sub-total :(II)	935.6	206.6	175.6	1370.9	0.0	37.3	324.5	3050.5
Grand total :	52685.6	13337.2	90056.7	89883.1	6183.2	4533.6	26211.8	282891.2

Annexure 3.28**CONSUMER CATEGORYWISE SALE OF POWER, 1998-99**

(Mkwh)

	Domestic	Commer- cial	Agri/ irrig.	Industry	Railway traction	Outside the State/UT	Others	Total
I. SEBs								
1 Andhra Pradesh	5090.0	1060.0	9945.0	6611.0	845.0	97.0	1563.0	25211.0
2 Assam	968.5	216.8	82.6	457.3	0.0	0.0	935.4	2660.7
3 Bihar	1051.8	513.4	1770.9	4486.3	524.5	159.7	255.2	8761.8
4 Delhi (DVB)	3029.0	314.0	87.0	2988.0	NA	305.4	1445.0	8168.4
5 Gujarat	2650.0	752.0	12221.0	9690.0	357.0	270.0	2888.0	28828.0
6 Haryana	2011.0	351.0	4040.0	1877.0	134.0	99.0	778.0	9290.0
7 Himachal Pradesh	537.7	139.8	12.0	1294.3	0.0	702.4	349.5	3035.7
8 Jammu & Kashmir	830.0	160.9	500.0	452.4	0.0	0.0	930.4	2873.7
9 Karnataka	3342.0	608.0	7008.0	3815.0	28.0	0.0	1105.0	15906.0
10 Kerala	4452.7	790.1	411.0	2991.3	9.1	0.0	479.5	9133.7
11 Madhya Pradesh	4353.2	739.7	11693.0	6128.6	1316.6	176.3	2252.2	26659.6
12 Maharashtra	5915.0	1243.0	15968.0	14930.0	900.0	1071.0	6301.0	46328.0
13 Meghalaya	121.8	34.2	0.3	76.9	0.0	168.3	116.6	518.0
14 Orissa	1731.0	347.0	258.0	2741.0	166.0	0.0	205.0	5448.0
15 Punjab	3596.0	785.0	7532.0	7187.0	0.0	1365.4	404.0	20869.4
16 Rajasthan	2436.0	868.8	4980.4	5535.0	206.5	474.3	879.5	15380.4
17 Tamil Nadu	5280.0	1572.0	7556.0	10053.0	445.0	205.0	2751.0	27862.0
18 Uttar Pradesh	8181.0	2024.0	9982.0	5901.0	868.0	534.0	1136.0	28626.0
19 West Bengal	2499.5	1030.2	1204.9	2548.7	490.1	16.2	2137.3	9926.8
Sub-total :(I)	58076.1	13549.8	95252.0	89763.8	6289.9	5643.9	26911.6	295487.2
II EDs								
1 Arunachal Pradesh	69.2	7.7	0.0	10.4	0.0	0.0	12.3	99.6
2 Goa	253.9	75.5	11.4	643.7	0.0	58.3	22.0	1064.8
3 Manipur	90.5	10.8	10.7	19.3	0.0	0.1	48.5	179.9
4 Mizoram	80.3	8.9	0.0	1.0	0.0	0.0	12.6	102.8
5 Nagaland	74.0	8.9	0.0	20.1	0.0	0.0	26.3	129.3
6 Ponicherry	155.5	56.2	95.8	725.6	0.0	0.0	24.6	1057.6
7 Sikkim	52.5	15.5	0.0	17.0	0.0	0.0	16.2	101.2
8 Tripura	138.9	35.7	79.4	51.6	0.0	52.9	90.4	448.9
Sub-total :(II)	914.7	219.2	197.3	1488.7	0.0	111.2	252.9	3184.0
Grand total :	58990.9	13769.0	95449.3	91252.6	6289.9	5755.2	27164.5	298671.2

Annexure 3.29**CONSUMER CATEGORYWISE SALE OF POWER, 1999-2000**

(Mkwh)

	Domestic	Commer- cial	Agri/ irrig.	Industry	Railway traction	Outside the State/UT	Others	Total
I. SEBs								
1 Andhra Pradesh	5854.0	1350.0	11138.0	6505.0	900.0	0.0	1776.0	27523.0
2 Assam	697.7	161.5	58.6	582.7	0.0	0.0	373.5	1874.0
3 Bihar	1115.7	544.8	1878.9	4760.1	557.8	133.8	306.0	9297.1
4 Delhi (DVB)	3211.0	522.0	99.0	3124.0	NA	0.0	1451.0	8407.0
5 Gujarat	2993.0	850.0	13342.0	10231.0	362.0	0.0	3126.0	30904.0
6 Haryana	2137.3	387.9	4184.0	1851.3	0.0	0.0	804.5	9365.0
7 Himachal Pradesh	602.0	150.0	14.0	1339.0	0.0	749.0	395.0	3249.0
8 Jammu & Kashmir	830.0	190.0	500.0	460.0	0.0	0.0	935.0	2915.0
9 Karnataka	3672.0	656.0	8292.0	4025.0	31.0	0.0	1230.0	17906.0
10 Kerala	4907.3	616.8	447.9	3516.9	14.5	0.0	686.7	10189.9
11 Madhya Pradesh	4733.0	770.0	12278.0	5613.0	1380.0	176.0	2424.0	27374.0
12 Maharashtra	6638.0	1525.0	16343.0	17995.0	1133.0	600.0	6066.0	50300.0
13 Meghalaya	126.3	39.3	0.3	98.9	0.0	163.8	111.9	540.4
14 Orissa	NA	NA	NA	NA	NA	NA	NA	9666.3
15 Punjab	3941.0	860.0	7000.0	7875.0	0.0	1300.0	582.0	21558.0
16 Rajasthan	2653.6	844.2	6032.2	5297.6	179.7	436.8	902.2	16346.3
17 Tamil Nadu	5714.0	1728.0	8091.0	10766.0	416.0	219.0	2779.0	29713.0
18 Uttar Pradesh	8949.0	2076.0	10056.0	5762.0	876.0	534.0	1196.0	29449.0
19 West Bengal	2343.5	1092.0	1210.0	2756.0	556.0	16.5	1984.0	9958.0
Sub-total :(I)	61118.3	14363.5	100964.8	92558.5	6406.0	4328.9	27128.7	316534.9
II EDs								
1 Arunachal Pradesh	69.5	10.6	0.0	13.1	0.0	0.0	12.2	105.4
2 Goa	258.3	76.8	11.6	654.9	0.0	42.0	22.3	1066.0
3 Manipur	128.8	15.5	15.5	28.3	0.0	0.0	69.5	257.5
4 Mizoram	91.2	9.9	0.0	1.2	0.0	0.0	15.4	117.7
5 Nagaland	79.7	9.4	0.0	21.2	0.0	0.0	27.9	138.2
6 Ponicherry	182.9	66.1	112.6	853.5	0.0	0.0	28.9	1244.0
7 Sikkim	52.6	18.2	0.0	18.6	0.0	0.0	16.4	105.8
8 Tripura	208.4	14.1	92.7	13.0	0.0	52.9	42.7	423.7
Sub-total :(II)	1071.3	220.5	232.4	1603.8	0.0	94.9	235.3	3458.2
Grand total :	62189.6	14584.0	101197.2	94162.3	6406.0	4423.8	27364.0	319993.1

Annexure 3.30**CONSUMER CATEGORYWISE SALE OF POWER, 2000-01 (AP)**

(Mkwh)

	Domestic	Commer- cial	Agri/ irrig.	Industry	Railway traction	Outside the State/UT	Others	Total
I. SEBs								
1 Andhra Pradesh	6888.0	1553.0	11610.0	7142.0	1000.0	0.0	1895.0	30088.0
2 Assam	748.9	23.8	64.4	609.0	0.0	0.0	593.9	2040.0
3 Bihar	1199.3	585.6	2019.8	5116.9	599.6	149.1	323.6	9994.0
4 Delhi (DVB)	4552.0	2005.0	88.0	1890.0	NA	0.0	1724.0	10259.0
5 Gujarat	3066.0	940.0	13800.0	10570.0	430.0	0.0	3130.0	31616.0
6 Haryana	2418.3	439.1	4725.3	2097.2	0.0	0.0	911.3	10591.0
7 Himachal Pradesh	674.0	162.0	15.0	1434.0	0.0	755.0	396.0	3436.0
8 Jammu & Kashmir	1077.0	250.0	500.0	500.0	0.0	0.0	1070.0	3397.0
9 Karnataka	3912.0	706.0	8040.0	4035.0	35.0	0.0	1345.0	18073.0
10 Kerala	5878.2	738.8	536.5	4212.8	17.3	0.0	882.6	12206.1
11 Madhya Pradesh	5145.0	802.0	12892.0	6780.0	1446.0	176.0	2631.0	29872.0
12 Maharashtra	7036.0	1617.0	17262.0	18700.0	1180.0	800.0	6305.0	52900.0
13 Meghalaya	133.8	41.3	0.3	110.3	0.0	110.0	116.1	511.8
14 Orissa	NA	NA	NA	NA	NA	0.0	NA	10541.0
15 Punjab	4297.0	938.0	7000.0	8586.0	0.0	1300.0	622.0	22743.0
16 Rajasthan	2867.6	985.1	5762.7	6593.8	236.0	400.0	814.6	17659.7
17 Tamil Nadu	5926.0	1792.0	8390.0	11164.0	431.0	227.0	2883.0	30813.0
18 Uttar Pradesh	9304.0	2215.0	10374.0	5922.0	895.0	534.0	1290.0	30534.0
19 West Bengal	2540.0	1183.0	1322.0	2987.0	603.0	17.0	2004.0	10656.0
Sub-total :(I)	67663.0	16976.7	104401.9	98450.0	6872.9	4468.1	28937.1	337930.5
II EDs								
1 Arunachal Pradesh	77.9	11.8	0.0	14.6	0.0	0.0	13.7	118.0
2 Goa	259.4	87.8	13.3	748.9	0.0	36.0	61.6	1207.0
3 Manipur	166.6	20.0	20.0	36.6	0.0	0.0	90.0	333.2
4 Mizoram	104.9	11.7	0.0	1.5	0.0	0.0	19.0	137.1
5 Nagaland	82.3	9.9	0.0	22.3	0.0	0.0	29.2	143.7
6 Ponicherry	201.8	72.9	124.3	941.7	0.0	0.0	31.9	1372.5
7 Sikkim	62.0	12.0	0.0	8.5	0.0	0.0	18.8	101.3
8 Tripura	218.7	15.5	99.4	13.9	0.0	52.9	50.1	450.4
Sub-total :(II)	1173.5	241.6	256.9	1788.1	0.0	88.9	314.2	3863.2
Grand total :	68836.5	17218.3	104658.8	100238.1	6872.9	4556.9	29251.4	341793.8

Annexure 3.31**SHARE OF AGRICULTURE IN TOTAL SALES**

(%)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	Actual	Actual	Actual	Actual	Provi.	(AP)	
I. SEBs									
1 Andhra Pradesh	40.9	42.3	47.3	48.4	37.3	39.0	39.4	40.5	38.6
2 Assam	14.0	2.6	2.6	2.4	2.3	1.3	3.1	3.1	3.2
3 Bihar	27.2	22.1	21.4	19.4	18.5	20.2	20.2	20.2	20.2
4 Delhi (DVB)	0.9	NA	NA	NA	0.7	0.7	1.1	1.2	0.9
5 Gujarat	42.1	42.3	39.3	41.0	37.7	40.2	42.4	43.2	43.6
6 Haryana	47.1	47.6	44.5	44.7	45.1	43.4	43.5	44.7	44.6
7 Himachal Pradesh	0.8	0.8	0.6	0.5	0.4	0.4	0.4	0.4	0.4
8 Jammu & Kashmir	11.8	16.6	18.0	17.6	16.9	17.0	17.4	17.2	14.7
9 Karnataka	41.2	43.3	45.9	46.1	45.5	51.8	44.1	46.3	44.5
10 Kerala	4.0	3.8	3.9	4.3	4.7	4.4	4.5	4.4	4.4
11 Madhya Pradesh	21.5	29.5	32.2	34.8	36.2	39.2	43.9	44.9	43.2
12 Maharashtra	26.5	25.2	30.3	32.0	32.5	35.0	34.5	32.5	32.6
13 Meghalaya	0.4	0.3	0.4	0.3	0.3	0.3	0.0	0.0	0.0
14 Orissa	5.6	5.8	3.2	3.4	3.3	3.7	4.7	NA	NA
15 Punjab	44.6	41.7	37.8	35.8	35.7	32.2	36.1	32.5	30.8
16 Rajasthan	29.4	30.7	30.4	31.7	33.7	32.4	32.4	36.9	32.6
17 Tamil Nadu	27.0	25.9	27.0	26.9	26.0	27.0	27.1	27.2	27.2
18 Uttar Pradesh	38.1	37.5	36.8	36.3	36.2	34.9	34.9	34.1	34.0
19 West Bengal	11.8	11.2	12.8	13.8	14.2	15.0	12.1	12.2	12.4
Average :(I)	30.1	31.5	32.6	32.3	31.1	32.1	32.2	31.9	30.9
II. EDs									
1 Arunachal Pradesh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 Goa	1.5	1.0	1.2	1.1	1.1	1.1	1.1	1.1	1.1
3 Manipur	2.0	2.4	5.9	1.7	2.5	2.5	6.0	6.0	6.0
4 Mizoram	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 Nagaland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6 Pondicherry	12.3	12.4	11.1	11.1	11.2	10.1	9.1	9.1	9.1
7 Sikkim	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8 Tripura	17.0	17.0	16.0	16.1	23.0	19.5	17.7	21.9	22.1
Average :(II)	6.5	6.1	6.3	6.2	6.2	4.6	6.2	6.7	6.7
Overall : All India	29.9	31.2	32.4	32.0	30.8	31.7	32.0	31.6	30.6

Annexure 3.32**SHARE OF REVENUE FROM AGRICULTURE
IN TOTAL SALES REVENUE**

(%)

	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
I. SEBs									
1 Andhra Pradesh	3.52	2.80	2.70	1.59	3.18	3.77	3.66	3.32	2.96
2 Assam	0.78	1.00	0.80	1.75	2.05	2.98	3.37	2.29	2.09
3 Bihar	2.41	2.20	2.10	1.76	1.40	1.22	1.24	1.23	1.24
4 Delhi (DVB)	0.24	NA	NA	NA	NA	1.00	0.18	0.18	0.74
5 Gujarat	4.61	6.60	6.80	5.91	4.81	3.88	3.69	3.57	3.34
6 Haryana	14.27	16.60	18.40	17.46	15.22	14.13	11.70	6.13	6.12
7 Himachal Pradesh	0.30	0.30	0.20	0.21	0.16	0.12	0.12	0.12	0.12
8 Jammu & Kashmir	3.77	4.36	6.80	5.62	5.36	5.82	24.99	55.14	41.75
9 Karnataka	1.68	1.10	0.80	0.85	1.85	3.98	5.92	4.80	19.12
10 Kerala	1.36	1.30	1.10	1.11	1.32	1.95	2.05	1.40	1.11
11 Madhya Pradesh	4.42	4.60	0.90	1.24	1.40	1.22	1.33	3.10	2.87
12 Maharashtra	2.94	3.70	3.40	3.12	3.68	3.60	3.93	3.45	3.44
13 Meghalaya	0.17	0.10	0.20	0.13	0.12	0.10	0.12	0.01	0.01
14 Orissa	2.25	1.30	1.10	1.04	0.98	1.21	1.73	NA	NA
15 Punjab	6.57	9.10	11.90	11.00	7.42	0.00	0.00	0.00	0.00
16 Rajasthan	8.65	8.20	6.90	6.32	5.54	4.62	4.66	5.00	4.58
17 Tamil Nadu	0.00	0.00	0.00	0.00	0.23	0.22	0.15	0.15	0.14
18 Uttar Pradesh	11.10	10.70	12.90	13.25	10.77	10.09	9.56	9.18	9.26
19 West Bengal	1.96	2.10	1.90	2.05	2.05	2.37	1.19	1.85	1.93
Average	4.33	4.79	4.77	4.37	3.98	3.56	3.56	3.36	4.13
II. EDs									
1 Arunachal Pradesh					0.00	0.00	0.00	0.00	0.00
2 Goa					0.45	0.31	0.63	0.62	0.62
3 Manipur					6.52	7.09	8.53	4.99	5.02
4 Mizoram					0.00	0.00	0.00	0.00	0.00
5 Nagaland					0.00	0.00	0.00	0.00	0.00
6 Pondicherry					0.60	0.53	0.43	0.41	0.41
7 Sikkim					0.00	0.00	0.00	0.00	0.00
8 Tripura					15.07	12.20	14.43	17.03	17.05
Average					1.17	0.92	1.23	1.81	1.63
Overall : All India					3.95	3.54	3.54	3.34	4.10

Annexure 3.33**SHARE OF REVENUE FROM DOMESTIC
SECTOR IN TOTAL SALES REVENUE**

(%)

(%)

	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
I. SEBs									
1 Andhra Pradesh	13.3	13.5	13.8	15.4	16.5	18.8	19.7	20.9	21.9
2 Assam	11.4	19.7	25.8	16.9	16.5	16.2	25.4	16.0	14.1
3 Bihar	8.1	7.2	8.1	7.8	7.5	6.6	6.6	6.6	6.6
4 Delhi (DVB)	27.5	NA	NA	NA	NA	NA	NA	17.7	38.0
5 Gujarat	8.0	7.5	7.7	7.9	8.1	8.0	9.1	10.1	10.6
6 Haryana	16.7	17.2	18.2	18.8	21.6	22.4	26.0	29.7	29.7
7 Himachal Pradesh	10.4	10.5	8.6	8.0	7.2	6.6	7.1	7.6	9.6
8 Jammu & Kashmir	17.4	18.6	26.3	22.8	22.7	21.8	39.8	35.4	45.0
9 Karnataka	14.6	16.3	16.0	15.7	17.9	19.9	23.5	20.0	21.3
10 Kerala	23.2	23.5	22.3	24.6	30.3	30.4	29.1	26.7	21.2
11 Madhya Pradesh	6.7	7.0	7.0	6.5	6.5	7.2	8.0	13.0	12.4
12 Maharashtra	7.9	7.3	7.4	6.9	7.4	8.8	9.8	9.9	10.1
13 Meghalaya	7.0	5.1	7.3	10.0	11.7	14.2	14.2	18.3	19.6
14 Orissa	11.9	14.6	11.5	10.2	13.4	16.1	15.7	NA	NA
15 Punjab	16.2	14.9	16.6	18.3	17.2	18.0	19.4	20.2	20.4
16 Rajasthan	9.1	9.7	9.9	9.9	11.2	10.9	11.0	10.6	9.7
17 Tamil Nadu	11.6	11.5	11.6	11.7	12.1	12.8	16.7	16.2	16.3
18 Uttar Pradesh	15.3	15.0	16.0	14.7	16.8	16.4	17.9	21.6	21.5
19 West Bengal	9.6	9.0	9.2	8.5	11.1	12.3	14.8	16.0	16.1
Average :	11.9	11.0	11.4	10.7	11.5	13.9	14.9	15.4	16.4
II. EDs									
1 Arunachal Pradesh					NA	NA	NA	NA	NA
2 Goa					11.1	11.3	11.4	11.1	11.2
3 Manipur					120.2	139.9	88.9	52.9	56.0
4 Mizoram					72.2	74.4	73.6	73.5	68.6
5 Nagaland					47.0	48.1	48.2	50.0	48.3
6 Pondicherry					9.0	9.1	8.3	8.3	8.3
7 Sikkim					59.0	54.1	51.6	48.9	65.5
8 Tripura					40.4	37.2	40.9	48.5	47.5
Average :					19.3	18.1	16.8	18.2	18.3
Overall : All India					11.6	13.9	14.9	15.4	16.4

Annexure 3.34**SHARE OF INDUSTRY IN TOTAL SALE OF POWER**

(%)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	Actual	Actual	Actual	Actual	Provi.	(RE)	(AP)
I. SEBs									
1. Andhra Pradesh	35.0	32.3	29.1	27.5	32.4	28.5	26.2	23.6	23.7
2. Assam	37.0	27.7	28.4	28.1	26.6	24.1	17.2	31.1	29.9
3. Bihar	48.0	52.8	49.7	51.7	53.9	51.2	51.2	51.2	51.2
4. Delhi(DVB)	25.0	NA	NA	NA	19.2	NA	NA	37.2	18.4
5. Gujarat	35.1	35.8	38.4	36.9	36.8	36.7	33.6	33.1	33.4
6. Haryana	10.6	20.7	23.0	23.1	21.5	21.8	20.2	19.8	19.8
7. Himachal Pradesh	41.7	40.5	38.1	36.6	39.0	40.8	42.6	41.2	41.7
8. Jammu & Kashmir	16.8	17.1	16.3	12.5	13.0	12.2	15.7	15.8	14.7
9. Karnataka SEB	34.6	32.2	30.1	28.4	26.1	21.3	24.0	22.5	22.3
10. Kerala	44.8	43.9	44.7	7.2	31.7	32.8	32.7	34.5	34.5
11. Madhya Pradesh	43.0	38.9	36.7	34.4	31.7	27.4	23.0	20.5	22.7
12. Maharashtra	37.8	35.3	35.3	35.7	34.5	33.4	32.2	35.8	35.3
13. Meghalaya	19.7	15.2	23.3	12.0	13.1	8.9	14.8	18.3	21.5
14. Orissa	55.4	53.7	58.5	55.3	50.0	49.6	50.3	NA	NA
15. Punjab	34.1	33.4	36.5	39.7	38.7	38.3	34.4	36.5	37.8
16. Rajasthan	39.3	38.2	40.3	37.4	35.1	36.0	36.0	32.4	37.3
17. Tamil Nadu	41.8	40.2	40.0	39.9	40.3	40.1	36.1	36.2	36.2
18. Uttar Pradesh	26.6	25.3	24.3	24.6	23.3	22.3	20.6	19.6	19.4
19. West Bengal SEB	29.2	25.7	25.2	23.7	23.2	25.0	25.7	27.7	28.0
All SEBs	35.4	34.7	33.6	32.1	32.8	31.6	30.4	29.2	29.1
II. EDs									
1. Arunachal Pradesh	15.0	14.9	22.2	8.0	9.0	9.0	10.4	12.4	12.4
2. Goa	58.8	51.9	56.7	61.1	62.7	57.8	60.5	61.4	62.0
3. Manipur	8.0	19.8	9.8	19.4	19.5	16.0	10.7	11.0	11.0
4. Mizoram	2.3	2.2	1.2	1.0	0.7	1.1	1.0	1.0	1.1
5. Nagaland	8.0	20.8	18.0	17.3	16.1	15.7	15.5	15.4	15.5
6. Pondicherry	72.9	69.7	71.8	67.6	66.2	66.8	68.6	68.6	68.6
7. Sikkim	16.9	16.1	16.7	14.8	11.0	15.1	16.8	17.6	8.4
8. Tripura	20.0	21.0	20.2	20.1	8.0	11.7	11.5	3.1	3.1
All EDs	48.9	46.9	48.7	48.0	45.7	36.0	46.8	46.4	46.3
Overall :	35.5	34.8	33.7	32.2	32.9	31.7	30.6	29.4	29.3

Annexure 3.35

PER CAPITA CONSUMPTION OF ELECTRICITY

		(Kwh)												
Re	gion/State/U.T.	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1	Haryana	272	306	328	365	400	455	507	491	467	503	504	488.02	503.06
2	Himachal Pradesh	145	162	167	180	209	210	208	219	254	288	306	322.62	333.52
3	Jammu & Kashmir	140	163	172	178	193	189	188	195	196	201	218	270.23	291.59
4	Punjab	481	515	660	639	606	616	684	703	759	760	792	798.22	860.81
5	Rajasthan	155	162	182	201	201	231	246	256	270	297	301	314.34	329.35
6	Uttar Pradesh	131	135	143	159	166	174	179	186	204	207	197	199.53	195.58
7	Chandigarh	478	483	532	584	708	755	715	626	676	717	795	807.76	843.55
8	Delhi	560	567	576	651	704	758	823	733	747	608	577	612.68	689.23
	Northern Region	192	202	217	241	249	265	282	286	302	308	306	313.12	324.1
9	Gujarat	320	373	397	399	469	504	538	587	608	671	694	704.61	723.53
10	Madhya Pradesh	182	187	188	205	247	267	281	311	335	367	367	377.51	397.93
11	Maharashtra	327	347	372	405	411	434	439	459	500	545	556	577.37	593.79
12	Goa	339	357	382	396	452	495	541	588	602	707	724	739.45	740.04
13	Daman & Diu							1015	1182	1548	2016	2335	2720.69	3599.08
14	D & N Haveli	228	420	876	879	905	980	1175	1392	1574	1811	2379	3226.83	3566.17
	Western Region	275	297	314	334	367	391	406	437	468	513	522	538.27	557.1
15	Andhra Pradesh	205	197	218	227	245	191	312	345	374	368	346	391	404.27
16	Karnataka	197	207	233	273	296	296	303	328	364	363	340	387.09	349.24
17	Kerala	135	130	148	164	188	196	200	215	237	249	241	261.8	305.09
18	Tamil Nadu	238	249	277	295	323	335	369	386	430	459	468	484.11	497.59
19	Pondicherry	345	439	527	618	720	782	856	843	969	958	867	931.85	1010.1
20	Lakshadweep	118	137	155	171	154	172	183	207	185	209	234	217.86	231.14
	Southern Region	202	205	229	249	272	288	312	335	369	377	366	399.71	405.84
21	Bihar	95	104	110	102	110	108	117	126	134	138	138	141.79	152.33
22	Orissa	146	165	201	181	271	295	297	313	333	370	309	308.18	312.52
23	West Bengal	137	135	137	139	148	151	158	171	175	186	194	202.41	210.57
24	A & N Island	89	112	121	105	117	118	162	168	178	202	210	206.84	217.69
25	Sikkim	57	65	68	96	119	20	114	123	143	173	172	177.83	184.91
	Eastern Region	119	125	135	129	150	156	162	174	182	195	188	192.3	200.86
26	Assam	51	64	63	78	94	90	97	95	98	98	104	99.81	122.51
27	Manipur	48	60	57	80	97	107	104	111	107	118	128	138.87	74.66
28	Meghalaya	83	88	98	108	115	125	129	110	140	143	135	143.47	150.29
29	Nagaland	56	62	67	70	75	78	73	68	59	79	88	86.57	81.35
30	Tripura	29	35	41	51	47	53	59	60	66	73	80	90.15	109.93
31	Arunachal Pradesh	34	47	55	58	68	58	54	67	66	78	81	101.2	87.39
32	Mizoram	26	41	49	57	69	69	91	101	112	128	128	95.14	113.59
	N.E. Region	50	62	63	76	89	88	93	92	96	99	104	103.37	117.06
	ALL INDIA	191	201	217	236	253	268	283	299	320	336	334	348.5	359.57

Annexure 3.36

POWER SUPPLY POSITION IN INDIA

		Energy Surplus(+)/Deficit(-)%			Peak Surplus(+)/Deficit(-)%		
		1991-92	1996-97	2000-01	1991-92	1996-97	2000-01
		(Beginning of 8th Plan)\	(End of 8th Plan)		(Beginning of 8th Plan)	(End of 8th Plan)	
I.SEBS							

1	Andhra Pradesh	- 6.7	- 22.1	- 7.8	- 15.8	- 23.6	- 14.6
2	Assam	NA	- 10.2	+ 7.8	NA	- 0.0	- 0.9
3	Bihar	- 29.7	- 27.5	- 7.0	- 43.7	- 48.4	- 14.1
4	Delhi(DVB)	- 1.0	- 2.6	- 4.9	- 8.0	- 7.0	- 13.3
5	Gujarat	- 4.3	- 8.1	- 9.7	- 18.3	- 15.6	- 11.5
6	Haryana	- 2.0	- 5.9	- 2.8	- 20.2	- 15.9	- 3.3
7	Himachal Pradesh	- 0.7	- 0.9	- 3.2	- 21.9	- 0.0	0.0
8	Jammu & Kashmir	- 10.8	- 10.0	- 16.4	- 31.3	- 17.1	- 16.8
9	Karnataka	- 23.6	- 27.1	- 9.1	- 28.5	- 28.5	- 13.2
10	Kerala	- 3.3	- 22.7	- 6.6	- 18.3	- 24.0	- 5.1
11	Madhya Pradesh	- 5.6	- 12.0	- 12.4	- 21.3	- 29.1	- 25.3
12	Maharashtra	- 4.5	- 5.6	- 10.5	- 8.7	- 8.7	- 15.5
13	Meghalaya	NA	0.0	+ 7.3	NA	- 0.0	0.0
14	Orissa	- 7.0	- 3.0	+ 3.1	- 23.9	- 13.8	+ 2.2
15	Punjab	- 6.2	- 1.6	- 2.7	- 11.1	- 8.1	- 2.0
16,	Rajasthan	- 1.4	- 7.4	- 3.6	- 5.8	- 5.6	- 2.5
17	Tamil Nadu	- 4.8	- 13.8	- 7.6	- 16.7	- 15.9	- 15.3
18	Uttar Pradesh	- 10.3	- 13.9	- 14.6	- 17.8	- 20.0	- 15.0
19	West Bengal	- 9.0	- 2.9	+ 0.9	- 31.2	- 11.1	- 4.7
II.EDs							

1	Arunachal Pradesh	NA	- 48.5	+ 1.9	NA	- 21.6	0.0
2	Manipur	NA	- 10.7	- 2.3	NA	- 21.8	- 3.3
3	Mizoram	NA	- 19.2	+ 2.7	NA	- 0.0	- 2.7
4	Nagaland	NA	- 16.1	+ 2.6	NA	- 7.1	0.0
5	Tripura	NA	- 23.8	+ 3.9	NA	- 22.7	- 0.7
6	Chandigarh	0.0	0.2	- 0.4	- 15.8	0.0	0.0
7	Goa	0.0	0.0	- 10.8	- 6.9	0.0	- 9.8
Overall :		- 7.8	- 11.5	- 7.8	- 18.8	- 18.0	- 13.0

NUMBER OF VILLAGES ELECTRIFIED

(In Numbers)

		Cumulative on 03.1966	Cumulative on 03.1997	Cumulative on 03.1998	Cumulative on 03.1999	Cumulative on 03.2000
States						
1	Andhra Pradesh	26565	26565	26565	26565	26565
2	Arunachal Pradesh	2061	2061	2161	2147	2171
3	Assam	18999	1899	19019	19019	19019
4	Bihar	47805	47832	47837	47845	47888
5	Goa	360	360	360	360	360
6	Gujarat	17892	17927	17936	17940	17940
7	Haryana	6745	6759	6759	6759	6759
8	Himachal Pradesh	16761	16635	16635	16819	16844
9	Jammu & Kashmir	6252	6301	6315	6315	6315
10	Karnataka	26483	26446	26663	26676	26691
11	Kerala	1219	1384	1384	1384	1384
12	Madhya Pradesh	67239	67496	67959	68259	68346
13	Maharashtra	39106	40412	40412	40412	40412
14	Manipur	2016	1888	1940	1990	2001
15	Meghalaya	2407	2467	2494	2510	2510
16	Mizoram	664	672	684	687	691
17	Nagaland	1099	1099	1153	1163	1196
18	Orissa	32240	32825	33625	34442	35190
19	Punjab	12342	12428	12428	12428	12428
20	Rajasthan	30620	33554	34252	34937	35447
21	sikkim	405	405	405	405	405
22	Tamil Nadu	15822	15822	15822	15822	15822
23	Tripura	3640	788	803	806	810
24	Uttar Pradesh	86639	97079	87930	88641	89117
25	West Bengal	29205	29271	29319	29402	29515
	Total (States)	494586	490375	500860	503733	505826
	Total (Uts)	1090	1090	1090	1090	1090
	Total (States + Uts)	495676	491465	501950	504823	506916

Annexure-3.38**Energisation of Pumps****(In Nos.)**

	Cumulative on 03.1996	Cumulative on 03.1997	Cumulative on 03.1998	Cumulative on 03.1999	Cumulative on 03.2000
<u>States</u>					
1 Andhra Pradesh	1642993	1821291	1824689	1884686	1918712
2 Arunachal Pradesh	0	0	0	0	0
3 Assam	3675	3675	3675	3675	3675
4 Bihar	267371	269345	270277	271090	272629
5 Goa	5732	6063	6454	6590	6658
6 Gujarat	568858	591564	617495	643757	670422
7 Haryana	406612	408461	409404	410239	411022
8 Himachal Pradesh	4441	4780	5098	5392	5762
9 Jammu & Kashmir	4716	5088	5621	5621	5621
10 Karnataka	10149181	1049465	1082150	1141824	1181963
11 Kerala	304904	314632	329355	353405	373862
12 Madhya Pradesh	1131435	1176317	1229016	1274873	1298108
13 Maharashtra	2025973	2091718	2151191	2210001	2275531
14 Manipur	45	45	45	45	45
15 Meghalaya	65	65	65	65	65
16 Mizoram	0	0	0	0	0
17 Nagaland	176	176	176	176	176
18 Orissa	69184	70144	72047	73359	74526
19 Punjab	709916	726221	735162	744972	755141
20 Rajasthan	514758	539762	565068	590119	613061
21 Sikkim	0	0	0	0	0
22 Tamil Nadu	1528807	1567322	1609242	1643915	1680312
23 Tripura	1764	1764	1764	1885	2094
24 Uttar Pradesh	761272	778512	790157	806270	817673
25 West Bengal	101232	102773	104383	107238	109291
Total (States)	11068847	11529183	11812534	12179197	12476349
Total (UTs)	35243	36159	36872	37453	37895
Total (States + UTs)	11104090	11565342	11849406	12216650	12514244

Chapter 4

Financial Performance

4.1 Introduction

As indicated in the previous chapter while the physical performance of the SEBs and EDs has shown improvement, there has been no commensurate improvement in the financial performance. In fact, it has deteriorated in many respects. In this chapter, various financial indicators of the SEBs are discussed. These indicators are the unit cost of supply of electricity and its various components, average tariff and revenue realization of SEBs (including consumer category-wise tariff); unit cost- revenue comparison, commercial profits and losses, subsidies and cross subsidization, net internal resources, additional resource mobilization (ARM), rate of return, revenue arrears and outstanding dues of the SEBs etc.

4.2 Unit Cost of Power Supply

The unit cost of supply of electricity represents here the cost of supply to ultimate consumers. This unit cost for all the SEBs was 22.5 paise per kwh in 1974-75. It increased to 41.9 paise/kwh in 1980-81 and further to 108.6 paise/kwh in 1990-91. In the 1990s, the unit cost of supply of electricity of SEBs increased more steeply, i.e. from 128.2 paise/kwh in 1992-93 to 276.3 paise/kwh in 1999-2000 (RE). It is expected to increase to 303.8 Paise/kwh in 2000-01 (AP). The increase in the total cost of supply is mainly due to the increase in the cost of fuel, establishment & Administration cost, interest payments and the cost of power purchase. Increase in the various components of the cost structure from 1992-93 to 2000-01 is indicated below in Table 4.1:

Table 4.1

	(Paise/Kwh)	
	1992-93 (Actual)	2000-01 (AP)
Fuel	33.19	50.59
Power Purchase	35.76	138.53
O&M Expenditure	6.00	9.99
Establishment & Administration	19.50	40.89
Miscellaneous Expenditure	1.63	5.02
Depreciation	9.70	19.88
Interest payment	22.41	38.98
Total	128.19	303.86

Annexures 4.1 to 4.6 represents the trends for the different SEBs. Revised estimates for 1999-2000 indicate that Kerala and Himachal Pradesh have lower cost of supply per KWh than other States as these States are totally dependent on hydro-electricity.

4.3 Components of Cost

The major components of cost of supply of electricity are (i) the revenue expenditure which includes expenditure on fuel, power purchase, O&M, Establishment & Administration and other miscellaneous expenditure, and (ii) the fixed costs, mainly comprising depreciation and

interest payable to institutional creditors and the concerned State Governments. Table 4.2 presents the percentage share of each of these components in the unit cost of supply for all the SEBs from 1992-93 to 1999-2000 (RE).

Table 4.2

Structure of Unit Cost of Supply (%)								
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
Fuel	25.8	26.1	24.8	24.5	23.4	23.1	20.2	17.2
Power Purchase	27.9	29.3	28.4	32.2	34.1	36.4	38.5	44.5
O & M	4.7	4.9	4.9	4.8	4.2	4.1	3.7	3.4
Estt. & Admn.	15.2	14.8	14.1	12.9	13.7	13.6	14.8	13.6
Miscellaneous	1.3	1.5	3.2	2.0	2.4	2.2	2.6	1.8
Depreciation	7.6	6.9	9.2	8.8	8.5	7.7	7.2	6.6
Interest	17.5	16.5	15.4	14.8	13.7	12.9	13.0	12.9

4.4 Expenditure on Fuel

The share of expenditure on fuel in the total cost of supply of electricity has declined from 25.8% in 1992-93 to 17.2% during 1999-2000 (RE). This may be partly because the states of Andhra Pradesh, Haryana, Orissa, Karnataka and U.P have restructured their SEBs and formed separate generation, transmission and distribution companies and the above exercise does not include the cost of fuel of the generation companies recently formed after restructuring of SEBs since 1997-98. In case of such states, it consists of the cost of supply of transmission and distribution entities, along with the cost of supply of other SEBs. Because of this, the estimated fuel cost for 1999-2000 (RE) works out to around 17.2%. Fuel cost is dependent, apart from other things, on the specific consumption of coal and oil and the transportation costs for these fuels. Annexures 4.7 to 4.10 give the trends regarding fuel consumption and fuel costs for the different States. Table 4.3 gives the summarized results.

Table 4.3

Consumption and Cost of Fuel in Coal Based Thermal Generation				
	Fuel Consumption per kwh		Fuel Cost per kwh	
	Coal (kg.)	Oil (ml)	Coal (paise)	Oil (paise)
1992-93	0.75	7.8	53.4	3.7
1993-94	0.77	5.6	64.2	3.5
1994-95	0.77	6.6	66.6	4.0
1995-96	0.76	10.8	70.1	6.8
1996-97	0.76	5.5	82.5	4.2
1997-98	0.76	4.2	92.1	3.7
1998-99	0.75	4.3	93.6	4.0
1999-2000	0.75	4.2	96.8	4.1
2000-01	0.75	3.5	101.1	4.1

The specific coal consumption per Kwh in the thermal plants of the SEBs has been around 0.75 Kg to 0.77 Kg since 1992-93. There are, however, large inter-State variations as indicated in Annexure 4.8. The specific secondary oil consumption in the coal based thermal

units increased sharply from 7.8 ml/Kwh in 1992-93 to 10.8 ml/Kwh in 1995-96 and then decreased to 4.1 ml/Kwh during 1999-2000 (RE). It is expected to further decrease to 3.5 ml/Kwh in 2000-01. The situation is much better compared to what it was in late 1970s and early 1980s when the secondary oil consumption was over 12 ml/Kwh. The average specific oil consumption in Bihar, Delhi, Haryana and Assam is higher than that of all-utilities average. On the other hand, Andhra Pradesh, Karnataka Power Corporation, Tamil Nadu, Maharashtra, Rajasthan and Punjab have lower consumption. Madhya Pradesh has achieved a significant reduction in its secondary oil consumption in the last 5 years. The cost of coal per unit of generation of power has increased from 53.4 paise/Kwh in 1992-93 to 96.8 paise/Kwh in 1999-2000 (RE). It is likely to increase further to 101 paise/Kwh in 2000-01. The States like Gujarat, Haryana, Delhi, Punjab, Rajasthan and Tamil Nadu, located farther away from coal-fields have to bear a higher cost of coal/Kwh of generation. The main reason lies in higher transport cost for carrying coal to these States. The cost of secondary oil increased from 3.7 paise/Kwh in 1992-93 to 6.8 paise/Kwh in 1995-96 and then declined to 4.1 paise/Kwh in 2000-01. This is mainly because of specific R&M programmes, better maintenance and higher PLF.

4.5 Expenditure on Power Purchase

In the recent years, the share of expenditure on power purchase, has been increasing and constitute the largest component in total cost of supply of electricity. The cost of power purchase as a proportion of the average unit cost increased from 27.9% in 1992-93 to nearly 44.5% in 2000-01. The average rate of payment for purchase of power from various sources steadily increased from 76 paise/Kwh in 1992-93 to 166 paise/Kwh in 1999-2000 (RE). It was expected to increase to 184 paise/Kwh in 2000-01. The inter-State variations can be seen from Annexure 4.12. This is primarily due to reduction in share of states own installed capacity in total capacity in the country and more dependence on purchase of power from central utilities and to certain extent on the IPPs being set up in few states.

4.6 Expenditure on O&M Works

The share of O&M in the average unit cost of supply of electricity in case of 19 utilities has shown a downward trend from 4.7% in 1992-93 to 3.4% in 1999-2000 (RE). The States of Himachal Pradesh and Meghalaya have a fairly high share of O&M in the total cost. On the other hand, the share of O&M expenses in total cost is low in Jammu & Kashmir, Tamil Nadu, Karnataka, Punjab, Assam and Gujarat. The state-wise details are given in Annexure 4.13.

4.7 Expenditure on Establishment and Administration

Establishment and Administration charges comprise mainly the wages and salaries of staff. Its share in unit cost of supply of electricity has declined from 15.2% in 1992-93 to 12.9% in 1995-96 and then increased to 14% during 1999-2000 (RE). This increase may be partly due to the revision of pay scales after the Fifth Pay Commission Award. State-wise details can be seen in the Annexure 4-14.

The number of employees in the State utilities and EDs has been about 9.9 lakh in the last few years. In fact a downward trend is observed since 1998-99 and the number of employees in SEBs and EDs are reported to have decreased from 9.9 lakh in 1998-99 to 9.7 in 2000-01. The

number of employees per million units of electricity sold declined practically in all the SEBs and EDs. The average employees per MKwh of energy sales in all SEBs and EDs declined from 4.6 in 1992-93 to 2.66 in 1999-2000 (RE). The number of consumers increased from 73 million in 1992-93 to 100 million in 1999-2000 (RE). The number of employees per thousand consumers also declined to 9.3 in 1999-2000 as against 13.3 in 1992-93. Kerala, Andhra Pradesh, Gujarat, Karnataka, and Tamil Nadu have lower number of employees per thousand consumers. State-wise details are available at Annexures 4-17 to 4-20.

4.8 Nature of Fixed Costs

The share of fixed costs, viz., depreciation and interest payments in average cost declined from 25% in 1992-93 to 20% in 1999-2000 (RE). The share of depreciation in the cost of supply, which was 9.2% in 1994-95 declined to 7.2% in 1999-2000 (RE). The share of interest cost, i.e. interest payable by SEBs to the financial institutions and the State Governments has also come down to about 13% in 1999-2000 (RE) from a level of 17.5% in 1992-93. These estimates also include the depreciation and interest payment liabilities of generation companies formed in the states of Orissa, Haryana, Andhra Pradesh and U.P. since 1997-98. State-wise details can be seen at Annexures 4-15 and 4-16.

4.9 Average Tariff and Revenue Realization

Annexures 4.21 gives the average tariff from 1974-75 to 2000-01 (AP). Consumer category-wise tariff is presented in Annexures 4.22 to 4.26 for the years 1996-97 to 2000-01 (AP). The overall average tariff for sale of electricity by the SEBs was 18.8 paise/Kwh in 1974-75 and 32.3 paise/kwh in 1980-81. It increased to 105.4 paise/Kwh in 1992-93 and to 199 paise/Kwh in 1999-2000 (RE). It is likely to be 212 paise in 2000-01 (AP). There are large inter-State variations as is evident from Annexure 4.21.

4.10 Consumer Category-wise Average Tariff

Table 4.4 gives the consumer category-wise average tariff for electricity sale from 1992-93 to 2000-01 (AP).

Table 4.4

Consumer Category-wise Average Tariff (Paise/Kwh)									
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
Domestic	77.3	84.3	92.8	85.0	105.7	136.2	140.1	157.8	173.4
Commercial	165.3	186.3	208.0	172.8	239.1	293.6	322.4	354.9	340.4
Agriculture	16.1	17.9	18.8	19.0	21.2	20.2	20.6	21.1	28.5
Industry	171.5	198.2	221.1	219.5	275.5	312.7	320.5	344.5	359.9
Traction	206.8	216.4	261.4	282.5	346.8	382.2	405.9	414.7	420.8
Outside	91.0	84.5	111.8	93.5	151.4	138.1	163.6	181.6	193.8
State	105.4	116.7	128.0	139.0	165.3	180.3	185.5	199.0	212.0
Overall									

It is clear from the above that

- (i) Average unit revenue realized from agricultural sector and domestic lighting is significantly lower compared to the overall average unit revenue realized.
- (ii) Electricity for commercial users, industry and railway traction is charged at significantly higher rates than the average cost of supply.
- (iii) The unit average revenue realization for all the consumer categories (including the tariff charged from agricultural consumers) has increased, though at varying rates. The increase has been small for agricultural sector and fairly substantial for commercial and industrial consumers. It has already been indicated in the previous chapter that on account of the low tariff prevailing in the agricultural and domestic sectors, sales revenue realized from these two sectors has been very low. While the sales to these two sectors accounted for nearly one-half of the total sales, the revenue realized from them has been only about one-sixth of the total revenue of the SEBs in the recent years. State-wise details are at Annexures 4-27 & 4-28.

4.11 Financial Performance of SEBs

Annexures 4.29 to 4.51 provide details of cost-revenue comparison and other financial performance indicators, namely commercial profit and losses, subsidies provided to domestic, agricultural and inter-state sales, cross subsidization from other consumers, uncovered subsidy, additional revenue mobilization, net internal resources, rate of return on capital of the SEBs and tariff increase required to break even as well as to achieve 3% ROR..

4.12 Unit cost-revenue comparison

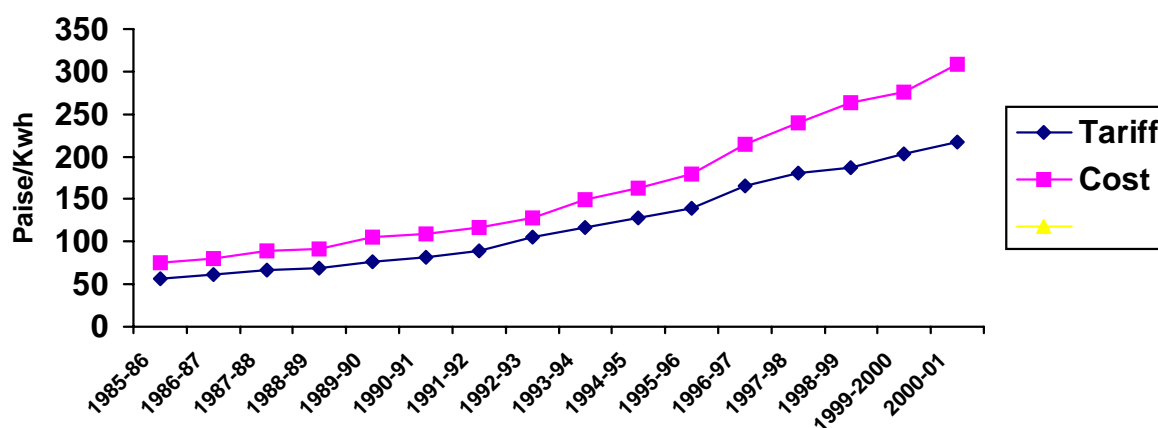
The recovery of cost through revenue is crucial for the health of any organisation. The percentage of sales revenue realized by SEBs to cost incurred has declined from 82.2% in 1992-93 to 70.2% in 1999-2000 (RE). The recovery of cost through tariff is likely to be about 70% of total cost of supply during 2000-01. The average tariff has not increased proportionately with the increase of the cost of supply and resultantly, the gap between cost of supply and average tariff has increased from 11 paise /Kwh in 1984-85 to 92 paise/Kwh in 2000-01. This has been indicated in the Figure 4.1. Though number of consumers have increased considerably in this period, the increase in the number of consumers has been mainly in the Domestic and Agricultural Sectors, who are getting power supplies at subsidized rates. Table 4.5 indicates average recovery of cost through tariff.

Table 4.5

Recovery of Cost Through Tariff			
	Average Cost (Paise/Kwh)	Average Tariff (Paise/Kwh)	Recovery as percentage Of Cost
1992-93	128.2	105.4	82.2
1993-94	149.1	116.7	78.3
1994-95	163.4	128.0	78.3
1995-96	179.6	139.0	77.4
1996-97	215.6	165.3	76.7
1997-98	239.7	180.3	75.2
1998-99	262.5	185.5	70.7
1999-2000	283.6	199.0	70.2
2000-01	303.8	212.0	69.8

There are wide inter-State variations in the ratio of average revenue realized to the average cost of supply as can be seen from Annexure 4.29. It was particularly low for Jammu & Kashmir, and below average in a number of other States namely, Andhra Pradesh, Assam, Bihar, Haryana, Delhi, Punjab and Madhya Pradesh in 1999-2000 (RE). Figure 4.1 depicts the average cost and average revenue realized per Kwh since 1985-86.

Figure 4.1
Average Cost Vs Average Tariff



4.13 Commercial Profit/Loss

The commercial loss of a SEB/ED is the gap between the total revenue receivables and total expenditure in a given year. The total revenue includes subvention given by the State Government in lieu of subsidized power supplies to domestic and agricultural sectors and total expenditure includes payments towards depreciation and interest payable to the State Government as well as financial institutions. The commercial losses (without subsidy) of the SEBs increased from Rs.4560 crore in 1992-93 to Rs.23028 crore in 1999-2000 (RE). These are projected to increase to Rs. 26013 crore in 2000-01 (AP). The details of the individual SEBs can

bee seen in Annexure 4.30 to 4.32. The total commercial losses of SEBs with subsidy for the period 1996-97 to 2000-01 are indicated in the Table 4.6.

Table 4.6

Rs. (Crore)							
Year	Total Revenue	Revenue Expenditure	Gross Operating Surplus	Depreciation	Net Operating Surplus	Total Interest Payable	Commercial Profit(+)/Loss(-)
1996-97	52567.42	44508.29	8059.13	4840.85	3218.28	7892.59	-4674.31
1997-98	59620.68	53250.66	6370.02	5199.94	1170.08	8768.03	-7597.95
1998-99	65296.83	61965.27	3331.56	5613.77	-2282.21	10114.56	-12396.77
1999-2000	71565.35	72191.35	-626.00	5954.74	-6580.74	11645.37	-18226.11
2000-01	82462.58	82794.24	-331.66	6716.52	-7048.18	13172.07	-20220.25

The level of commercial loss of the SEBs depends on the extent to which effective subsidies provided to agriculture and domestic sectors are not neutralized through cross subsidization and State Governments subsidy payments to SEBs. This is analyzed in the following paragraphs.

4.14 Uncovered Subsidy and Cross Subsidization

Annexures 4.33 to 4.38 give subsidy for agricultural, domestic and inter-state sales, subsidy that will remain after the introduction of the proposed minimum agricultural tariff of 50 paise/Kwh, subsidy/subvention provided by the State Government, surpluses generated from sales to other consumers, particularly industrial ,and commercial consumers and uncovered subsidy. Table 4.7 summarizes these findings.

Table 4.7

(Rs. crore)								
Year	Subsidy to Agricultural Consumers	Subsidy to Domestic Consumers	Subsidy on Inter-state sales	Gross subsidy	Subvention received from State	Net Subsidy	Surplus from Other Sectors	Uncovered subsidy
1996-97	15585.20	4386.01	238.75	20209.96	6630.6	13579.36	7778.95	5800.41
1997-98	17706.67	5258.43	457.13	23422.23	6364.75	17057.48	9010.87	8046.61
1998-99	20685.43	6433.03	553.63	27672.09	7574.83	20097.26	7841.41	12255.85
1999-2000	24540.89	8103.97	436.62	33081.47	4801.83	28279.64	8247.32	20032.33
2000-01	27083.47	9466.32	487.32	37037.11	5792.80	31244.31	7605.96	23638.35

Gross Subsidy on agriculture, domestic and inter-state sales has increased from a level of Rs. 7449 crore in 1991-92 to 20209.96 crore in 1996-97 and is likely to increase to Rs. 37712.65 crore in 2000-01 (AP). The gross subsidy per unit (Kwh) of energy sold during 2000-01 works out to 108 paise. While some State Governments partly compensate the SEBs for the subsidized sales of electricity to agricultural and domestic sectors others do not provide any compensation at all. The 2000-01 Annual Plan Proposals indicate the likely subvention from State Governments as Rs. 5792.80 crore. The SEBs make an effort to recover the losses due to the subsidized power supply to domestic and agriculture consumers by way of cross subsidization mainly to the industrial and commercial consumers. It is estimated that the surpluses generated by way of cross subsidization for the year 2000-01 are Rs. 7606 crore. Table 4.8 indicates the extent of cross

subsidization from these sectors. The cross subsidy from commercial and industrial sectors (as a percentage of effective subsidy to domestic and agricultural consumers), which was 41.7% in 1992-93, declined to 25.3% by 1999-2000 (RE). It is expected to further decline to 21% in 2000-01. This reflects that share of domestic and agricultural consumers, who get power supplies at subsidized rates, has been progressively increasing over the years as compared to decline in the share of industrial sector consumption. The irrational tariff policies of SEBs had a negative impact on industrial and commercial sectors and can affect the competitiveness of these sectors. This has also encouraged them to set up their own captive generation.

Table 4.8

Surplus Generated/Cross Subsidy from Other Sectors			
Year	Subsidy to Agriculture & Domestic Sector	Cross Subsidy	Cross subsidy as % of subsidy to Agri. & Domestic sector
1992-93 (A)	9369.9	3911.0	41.7
1993-94 (A)	11096.4	4522.5	40.8
1994-95 (A)	13477.8	5379.2	39.9
1995-96 (A)	16830.4	6333.7	37.6
1996-97 (A)	19971.2	7778.9	39.0
1997-98 (A)	22965.1	9010.9	39.2
1998-99 (Provi.)	27118.5	7641.4	28.2
1999-2000 (RE)	32644.86	8247.32	25.3
2000-01 (AP)	36549.79	7605.96	20.8

“Net subsidy” on account of sale of electricity to agricultural and domestic consumers was Rs. 5404 crore in 1991-92 which works out to 46% of Central Plan Assistance paid to states and UTs (Rs. 11749 crore) to States in that year and it is likely to increase to Rs. 31244.31 crore in 2000-01 (AP), which works out to 84.8% of Central Plan Assistance (Rs. 36824.40 crore) to States in that year. Even if we consider Rs. 7606 crore surplus generated by the SEBs by way of cross-subsidization from other sectors, the uncovered subsidy will be of the level of Rs. 23638.35 crore for the year 2000-01. Introduction of the national minimum agricultural tariff of 50 paise/Kwh would generate additional revenue of Rs. 2260 crore during the year 2000-01. It is, therefore, suggested that State Government should take policy initiatives to reduce the gap between the cost of supply and average tariff. Government may also look into the possibility of levying the excise duty and other local taxes and evolve a suitable mechanism to plough back the amount to meet the subsidy fully.

4.15 Rate of Return

In terms of Section 59 of the Electricity (Supply) Act, 1948, the SEBs are required to earn a minimum rate of return (ROR) of 3% on their net fixed assets in service after providing for depreciation and interest charge. The State Governments could prescribe a higher return if considered necessary. However, most of the SEBs are yet to comply with this statutory stipulation. Revenue realization from the sale of electricity in some cases does not even cover their revenue expenditure requirements. Annexures 4.44 to 4.46 give respectively the ROR with subsidy, without subsidy and with 50 paise/Kwh for agricultural sales. The position is summarized in Table 4.9.

Table 4.9

Rate of Return on Capital (%)			
Year	With Subsidy	Without Subsidy	With 50 Paise per Unit Agriculture Tariff
1992-93	(-) 7.6	(-) 12.7	(-) 6.6
1993-94	(-) 6.6	(-) 12.3	(-) 6.9
1994-95	(-) 5.7	(-) 13.1	(-) 8.1
1995-96	(-) 2.2	(-) 16.4	(-) 8.5
1996-97	(-) 7.6	(-) 19.6	(-) 12.4
1997-98	(-) 11.8	(-) 22.9	(-) 15.6
1998-99 (Provi.)	(-) 17.9	(-) 30.8	(-) 23.5
1999-2000 (RE)	(-) 27.7	(-) 33.8	(-) 26.4
2000-01 (AP)	(-) 27.6	(-) 35.1	(-) 28.0

There has been, in general, a deterioration in the ROR of the SEBs (without subsidy) from (-)12.7% in 1992-93 to (-)35.1% in 2000-01. Though subvention received from the State Governments has improved the ROR, it still remains negative. If the suggested national minimum agricultural tariff of 50 paise/Kwh has been implemented by all SEBs, the ROR would still have been (-)28% in 2000-01. If the SEBs are required to financially break-even, they would have to mobilize substantial revenue. Table 4.10 brings out the additional revenue mobilization of SEBs in case they achieve break-even ROR, 3% ROR or adopt the all-India minimum agricultural tariff of 50 paise/Kwh for the agricultural sector. State-wise details are at Annexures 4.47 to 4.49.

Table 4.10

Additional Revenue Mobilization (Rs. crore)			
Year	With 0% ROR	With 3% ROR	With 50 Paise per Unit Agriculture Tariff
1992-93	4723.0	5642.5	2191.5
1993-94	4248.9	6310.2	2217.3
1994-95	6611.9	7863.2	2412.2
1995-96	8277.8	9822.9	2621.1
1996-97	11304.9	13037.8	2380.5
1997-98	13962.7	15788.6	2727.0
1998-99 (Provi.)	19971.6	21914.4	2704.9
1999-2000 (RE)	23027.9	25073.1	2869.5
2000-01 (AP)	26013.1	28238.7	2260.2

If all the utilities are able to adopt a tariff of 50 paise/Kwh for agricultural sales, they would be able to mobilize additional revenues to the tune of Rs.2260.2 crore in 2000-01 (AP). Their resources could improve to over Rs.26013 crore, at 0% ROR and over Rs.28238 crore, at 3% ROR. The additional revenues would provide them with much needed funds for capacity expansion and improving the performance of the existing assets. These would also reduce the burden of State Governments providing the SEBs with subvention. It is evident from Annexures

4.50 and 4.51 that on an average at the all-India level, the SEBs would have to raise the tariff by about 91 paise/Kwh for achieving 0% ROR, and by about 98 paise/Kwh for achieving 3% ROR in 2000-01 over and above the average tariff proposed. The increase required (for achieving 0% ROR) is as high as 252 paise for J&K, 188 for Assam, 171 paise for A.P. 145 paise for Haryana. As against this the tariff increase required for Himachal Pradesh is 30 paise per unit only.

4.16 Net Internal Resources

The net internal resource (IR) refers to the surplus left with the SEBs after meeting the revenue expenditure and loan repayment obligations. It includes depreciation and the subvention provided by the State Government. If the SEBs function on commercial lines, as is statutorily required, the IR would have been positive in the normal course. However, in practice IR have been negative in all the years except in 1995-96. The net IR was (-) Rs.161.5 crore in 1992-93 and (-) Rs. 11532 crore in 1999-2000 (RE). The position varies from one SEB to another as indicated in Annexure 4-43.

4.17 Other Information

Annexures 4.52 to 4.57 present the picture regarding unrecovered revenue arrears outstanding in the case of the SEBs, the dues payable by the SEBs to the Central sector undertakings, the revenue accruals from State electricity duty and the financial working results of the EDs.

4.18 Revenue Arrears and Outstanding Dues

The uncovered revenue arrears of the various State utilities outstanding against various consumers increased from a level of Rs.9014 crore in 1994-95 to a level of Rs. 18786.50 crore in 1998-99. These arrears work out to about 34% of the annual sales turnover in 1998-99. In other words, this is equivalent to locking up of nearly 4 months' revenue with the consumers at any point of time. Also there are wide inter-State variations as indicated in Annexure 4.52. States like Meghalaya and Jammu & Kashmir have outstanding dues of more than 179% and 216% of their annual sales turnover (more than 22 months revenue) for 1998-99 whereas it is 8.4% in Tamil Nadu.

The outstanding dues (with surcharge) to be paid by the SEBs to the major Central Sector undertakings like NTPC, NHPC, DVC, NEEPCO, PFC, PGCIL, etc. as on 31st March'2001 are reported to be over Rs.27760 crore. The dues are particularly large in the case of certain SEBs e.g. Bihar (over Rs.5764 crore), Uttar Pradesh (over Rs.4291 crore), Delhi (over Rs. 3576 crore), West Bengal (over Rs. 2882 crore) and Madhya Pradesh (over Rs. 2914 crore). The receivables of certain Central Sector undertakings are quite substantial. These are NTPC - Rs.16063 crore, NHPC - nearly Rs.3299 crore, REC - nearly Rs.3520 crore and DVC Rs. 2788 crore.

4.19 State Electricity Duty

The State Electricity Duty (SED) constitutes an important source of revenue in some States. The SED is collected by the SEBs and is generally passed on to the respective State Exchequers. The SED collections increased from Rs.1131 crore in 1992-93 to about Rs.2726.5

crore in 1999-2000 (RE). As indicated in the state-wise details in Annexures 4.53 to 4.55, Gujarat accounts for 42% of the total SED collection in 1999-2000 (RE). The average incidence of electricity duty on the sale of electricity has been about 9.1 paise per Kwh in 1999-2000 (RE) or about 4.5% of the estimated overall tariff for electricity sales.

4.20 Financial Working of EDs

The financial statements of EDs are not strictly comparable to those of the SEBs, particularly as the depreciation and interest payments are not shown separately by some of the EDs. In view of this, their financial working has not been analyzed in the same detail as that of SEBs. Only the gross operating surpluses or deficits of the EDs are reported. The gross operating surplus is defined as the gap between the revenue receipts and revenue expenditure. The gross deficit of these EDs was of the order of Rs.37 crore in 1992-93. It increased to Rs. 197 crore in 1999-2000 (RE).

It is thus observed from the above analysis that the financial position of the SEBs has deteriorated over the years. In order to enable the SEBs to meet the power demand efficiently, they need to become autonomous, professional and commercially viable entities. The process of reforms and restructuring has already been initiated in a number of States. However, the pace of these reforms should increase. The progress of reforms in various states has been discussed in the next chapter.

UNIT COST OF POWER SUPPLY, 1974-75 TO 1999-2000

SEBs	(Paise/Kwh)					
	1974-75 Actual	1975-76 Actual	1976-77 Actual	1977-78 Actual	1978-79 Actual	1979-80 Actual
1. Andhra Pradesh	27.46	30.27	29.64	30.55	31.12	35.75
2. Assam		28.90	37.81	44.01	60.40	61.51
3. Bihar	29.67	31.86	32.82	34.97	48.33	53.68
5. Gujarat	24.09	25.91	29.99	29.56	33.24	38.27
6. Haryana	26.59	22.70	26.02	28.88	26.58	29.40
7. Himachal Pradesh	25.98	31.70	32.55	40.32	32.93	40.00
9. Karnataka	13.88	13.69	14.78	20.64	21.14	24.56
10. Kerala	17.93	16.52	18.17	16.00	16.27	19.68
11. Madhya Pradesh	20.31	23.11	26.66	29.05	35.13	42.50
12. Maharashtra	16.41	20.14	21.22	22.60	26.76	31.17
13. Meghalaya		25.15	22.15	25.12	36.27	39.38
14. Orissa	16.19	16.68	19.85	21.58	26.87	33.11
15. Punjab	24.54	20.58	24.69	26.29	24.78	29.84
16. Rajasthan	23.85	22.79	24.83	30.82	29.95	30.94
17. Tamil Nadu	24.57	24.97	32.05	29.42	30.48	34.54
18. Uttar Pradesh	33.94	34.76	32.51	39.31	40.19	48.87
19. West Bengal	17.62	25.67	25.82	29.86	32.79	39.90
Average :	22.52	24.04	26.17	28.07	30.45	35.34

(contd.)

UNIT COST OF POWER SUPPLY, 1974-75 TO 1999-2000

(Paise/Kwh)

SEBs	1980-81	1981-82	1982-83	1983-84	1984-85
	Actual	Actual	Actual	Actual	Actual
1. Andhra Pradesh	37.80	41.97	44.19	48.33	47.39
2. Assam	76.46	78.56	93.30	108.53	122.17
3. Bihar	67.68	74.69	85.65	96.34	106.56
4. Gujarat	46.01	50.16	60.10	67.10	76.32
5. Haryana	40.31	47.27	53.07	57.40	68.35
6. Himachal Pradesh	59.71	53.75	53.49	53.98	58.08
7. Karnataka	26.26	30.49	31.87	41.59	47.57
8. Kerala	22.38	22.52	31.33	45.44	34.17
9. Madhya Pradesh	52.44	61.92	63.97	68.72	71.32
10. Maharashtra	36.52	43.37	49.39	55.30	60.90
11. Meghalaya	27.99	28.36	34.47	42.41	47.50
12. Orissa	37.57	36.80	44.24	46.29	49.05
13. Punjab	36.46	39.29	44.43	48.54	57.00
14. Rajasthan	39.12	43.79	54.02	61.50	67.58
15. Tamil Nadu	43.82	50.39	63.68	73.12	64.24
16. Uttar Pradesh	56.33	64.37	67.11	74.39	79.68
17. West Bengal	49.00	62.00	72.48	91.26	88.31
Average :	41.90	47.59	54.78	61.77	65.07

(Contd.)

UNIT COST OF POWER SUPPLY, 1974-75 TO 1999-2000

(Paise/Kwh)

SEBs	1985-86 Actual	1986-97 Actual	1987-88 Actual	1988-89 Actual	1989-90 Actual
1. Andhra Pradesh	53.27	55.60	62.02	64.52	70.20
2. Assam	164.39	191.81	209.89	236.83	246.10
3. Bihar	127.83	135.42	137.02	126.35	142.60
4. Gujarat	92.31	100.56	99.39	108.63	102.80
5. Haryana	71.57	78.34	106.55	84.56	101.00
6. Himachal Pradesh	62.19	66.29	70.39	74.50	78.60
7. Karnataka	63.98	74.86	88.13	81.74	77.20
8. Kerala	35.64	59.28	60.25	61.22	62.20
9. Madhya Pradesh	73.30	76.49	83.75	90.02	96.80
10. Maharashtra	69.25	77.63	83.26	91.73	99.30
11. Meghalaya	53.20	89.22	78.73	85.96	106.50
12. Orissa	55.63	60.30	64.96	69.63	74.30
13. Punjab	60.45	66.48	83.89	98.40	103.40
14. Rajasthan	76.38	77.04	93.95	92.42	103.80
15. Tamil Nadu	76.42	76.78	84.72	86.14	104.90
16. Uttar Pradesh	85.64	85.51	88.28	103.69	105.30
17. West Bengal	100.21	104.06	106.62	123.92	136.10
Average :	74.59	80.37	88.96	91.20	101.50

(Contd.)

UNIT COST OF POWER SUPPLY, 1974-75 TO 1999-2000

(Paise/Kwh)

SEBs	1990-91 Actual	1991-92 Actual	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual
1. Andhra Pradesh	78.72	89.23	100.07	109.00	128.93	156.12
2. Assam	249.59	281.24	255.22	252.65	299.30	356.07
3. Bihar	168.97	176.53	185.67	200.05	232.84	252.40
4. Delhi (DVB)	137.89	144.06	164.12	NA	NA	329.76
5. Gujarat	110.11	132.28	146.59	158.40	171.63	181.53
6. Haryana	103.66	115.47	134.40	165.40	179.53	208.69
7. Himachal Pradesh	94.77	118.19	114.31	142.80	126.60	111.45
8. Jammu & Kashmir	125.59	172.34	165.46	209.13	230.80	242.48
9. Karnataka SEB	82.55	92.02	96.77	112.10	121.11	152.34
KPC	31.35	30.97	42.64	43.58	41.92	69.75
10. Kerala	68.17	81.30	87.30	98.32	108.84	134.46
11. Madhya Pradesh	116.44	121.53	141.44	157.80	167.18	181.64
12. Maharashtra	107.44	124.51	138.95	152.24	162.02	185.25
13. Meghalaya	137.28	107.06	110.09	97.75	139.01	147.35
14. Orissa	71.43	71.77	98.80	133.46	185.70	227.46
15. Punjab	106.79	98.77	122.00	145.16	165.06	179.69
16. Rajasthan	114.59	113.31	138.24	163.80	196.52	213.17
17. Tamil Nadu	114.32	103.33	124.52	144.72	152.02	170.91
18. Uttar Pradesh	110.04	119.51	153.42	169.44	177.53	191.98
19. West Bengal SEB	157.19	163.69	161.90	170.05	185.21	189.39
WBPDC	69.55	73.12	82.90	90.40	110.34	109.03
Average :	108.59	116.80	128.15	149.12	163.40	179.60

Contd.

UNIT COST OF POWER SUPPLY, 1974-75 TO 2000-01

(Paise/Kwh)

SEBs	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 RE	2000-01 (AP)
1. Andhra Pradesh					
i) APSEB/APTRANSCO	213.83	239.69	287.72	295.50	353.31
ii) APGENCO				126.76	134.76
2. Assam	337.32	457.17	297.48	511.38	541.66
3. Bihar	290.55	316.04	299.15	318.54	350.93
4. Delhi (DVB)	360.87	384.66	458.46	490.12	459.53
5. Gujarat	207.41	247.62	276.57	307.66	335.59
6. Haryana	240.64	293.40	313.72	343.07	359.98
HPGC			169.21	269.31	284.03
7. Himachal Pradesh	142.96	166.01	193.08	204.19	218.75
8. Jammu & Kashmir	286.24	293.01	325.26	347.44	341.01
9. Karnataka SEB	187.25	179.37	239.23	255.53	320.65
KPC	88.51	74.24	80.36	92.40	112.12
10. Kerala	161.29	196.01	179.24	244.19	275.96
11. Madhya Pradesh	216.18	231.46	250.59	260.83	272.38
12. Maharashtra	206.87	215.58	223.35	261.24	273.13
13. Meghalaya	159.63	179.88	220.65	229.87	267.66
14. Orissa					
i) OSEB/GRIDCO	322.60	351.73	350.75	184.19	177.45
ii) OHPC	20.84	31.07	30.18	33.13	22.81
iii) OPGC	130.68	147.37	111.96	102.42	99.47
15. Punjab	187.34	217.18	235.74	247.15	247.17
16. Rajasthan	234.55	258.60	287.87	334.58	334.45
17. Tamil Nadu	185.02	208.12	229.16	253.09	275.64
18. Uttar Pradesh	222.28	253.31	267.71	288.09	293.59
19. West Bengal SEB	205.36	252.48	300.36	318.42	342.71
WBPDC	136.54	160.01	151.16	143.88	166.42
Average of SEBs :	215.78	240.20	262.93	283.67	303.86
II.EDs					
1. Arunachal Pradesh	397.74	446.64	629.43	607.97	599.68
2. Goa	148.99	166.02	209.90	283.73	345.98
3. Manipur	242.71	128.79	250.89	431.53	379.72
4. Mizoram	343.92	585.05	466.97	516.06	466.05
5. Nagaland	356.97	346.88	393.22	393.27	377.89
6. Pondicherry	145.55	154.02	172.18	177.49	184.48
7. Sikkim	157.57	176.25	213.18	208.96	224.19
8. Tripura	297.73	244.74	163.39	293.28	285.96
Average of EDs	199.26	196.38	222.10	277.56	294.52
All India Average	215.61	239.73	262.50	283.60	303.75

COST STRUCTURE OF SEBs, 1996-97 (Actual)

SEBs	(Paise/Kwh of sale)							Total
	Fuel	Power Purchase	O & M exp.	Estt/ Admn.	Misc. exp.	Depre- ciation	Interest	
1. Andhra Pradesh	62.74	49.89	8.91	25.98	4.90	19.92	41.48	213.83
2. Assam	42.98	65.90	11.80	65.19	4.83	31.11	115.52	337.32
3. Bihar	21.89	160.45	14.56	46.85	0.00	24.40	22.41	290.55
4. Delhi(DVB)	35.80	246.69	12.39	37.25	0.00	14.70	14.05	360.87
5. Gujarat	86.64	55.89	5.69	19.14	0.00	16.63	23.41	207.41
6. Haryana	51.94	89.40	11.10	37.94	3.82	16.16	30.28	240.64
7. Himachal Pradesh	0.00	50.42	15.54	39.56	0.33	5.53	31.57	142.96
8. Jammu & Kashmir	12.09	175.99	6.04	29.77	0.00	17.16	45.20	286.24
9. Karnataka SEB	5.44	112.29	6.98	32.52	0.67	13.34	16.02	187.25
KPC	43.41	0.00	2.33	9.33	2.35	11.97	19.11	88.51
10. Kerala	0.00	51.74	5.60	48.94	11.79	9.42	33.80	161.29
11. Madhya Pradesh	40.97	77.21	9.06	30.77	3.73	17.76	36.68	216.18
12. Maharashtra	63.23	53.37	11.28	24.52	12.50	21.86	20.10	206.87
13. Meghalaya	0.00	9.05	20.33	73.31	0.00	13.64	43.30	159.63
14. Orissa (GRIDCO)	0.00	201.52	8.90	50.68	13.26	27.27	20.98	322.60
i) OHPC	0.00	0.00	1.75	5.27	0.01	12.25	1.57	20.84
ii) OPGC	43.73	0.00	6.70	4.92	4.46	22.88	47.99	130.68
15. Punjab	62.10	35.32	6.23	32.00	1.23	16.96	33.49	187.34
16. Rajasthan	43.97	80.59	10.67	20.91	32.91	16.36	29.15	234.55
17. Tamil Nadu	84.10	38.16	4.84	31.91	-2.74	12.28	16.46	185.02
18. Uttar Pradesh	37.49	62.03	10.71	29.48	0.29	27.24	55.04	222.28
19. West Bengal SEB	27.70	107.13	7.74	23.75	4.65	11.24	23.15	205.36
WBPDCL	83.91	0.00	5.62	3.64	0.09	18.79	24.50	136.54
Average of SEBs	50.97	73.03	8.84	29.68	5.26	18.25	29.75	215.78
II.EDs								
1. Arunachal Pradesh	91.28	45.34	94.60	37.78	0.00	43.12	85.63	397.74
2. Goa	0.00	125.57	2.22	18.58	0.00	2.61	0.00	148.99
3. Manipur	2.27	112.93	20.39	25.32	0.00	43.16	38.65	242.71
4. Mizoram	23.87	137.17	68.30	59.06	1.21	0.00	54.32	343.92
5. Nagaland	0.24	189.87	75.38	86.93	4.55	0.00	0.00	356.97
6. Pondicherry	0.00	127.63	1.50	3.58	0.00	12.83	0.00	145.55
7. Sikkim	2.09	23.22	78.38	53.88	0.00	0.00	0.00	157.57
8. Tripura	54.20	49.61	56.05	55.98	0.00	44.68	37.20	297.73
Average of EDs	9.77	115.16	21.01	24.97	0.26	15.05	13.04	199.26
All India Average	50.54	73.47	8.97	29.63	5.21	18.22	29.58	215.61

COST STRUCTURE OF SEBs, 1997-98 (Actual)

SEBs	(Paise/Kwh of sale)							Total
	Fuel	Power Purchase	O & M	Estt/ Admn.	Misc. exp.	Depre- ciation	Interest	
1. Andhra Pradesh	67.97	73.82	8.53	26.68	2.98	18.16	41.55	239.69
2. Assam	35.60	127.85	13.27	97.87	8.35	41.46	132.77	457.17
3. Bihar	21.46	185.38	14.45	49.56	0.00	24.16	21.04	316.04
4. Delhi(DVB)	37.43	273.66	17.67	26.66	0.00	14.75	14.50	384.66
5. Gujarat	101.56	71.91	7.21	21.06	0.00	19.23	26.66	247.62
6. Haryana	63.10	110.09	11.91	49.28	9.97	16.66	32.39	293.40
7. Himachal Pradesh	0.00	59.59	17.52	44.97	0.33	6.38	37.21	166.01
8. Jammu & Kashmir	7.79	201.03	4.82	23.69	0.00	14.94	40.74	293.01
9. Karnataka SEB	6.18	105.73	5.81	29.36	1.03	12.30	18.96	179.37
KPC	35.85	0.00	2.21	7.49	2.65	9.31	16.74	74.24
10. Kerala	4.16	70.78	5.77	55.99	11.75	9.89	37.67	196.01
11. Madhya Pradesh	48.53	76.00	10.41	38.70	6.02	17.46	34.35	231.46
12. Maharashtra	67.72	59.23	13.45	24.55	9.77	21.94	18.91	215.58
13. Meghalaya	0.00	8.47	22.12	81.49	0.00	24.17	43.62	179.88
14. Orissa (GRIDCO)	0.00	228.93	11.07	54.02	6.68	27.03	24.00	351.73
i) OHPC								
ii) OPGC								
15. Punjab	68.17	49.85	7.40	35.90	0.00	16.29	39.58	217.18
16. Rajasthan	49.75	99.39	9.65	24.57	27.51	17.45	30.27	258.60
17. Tamil Nadu	83.47	47.38	4.86	38.11	2.98	14.06	17.27	208.12
18. Uttar Pradesh	45.09	71.90	12.42	33.83	0.56	27.95	61.56	253.31
19. West Bengal SEB	33.11	142.91	6.86	25.87	6.06	12.40	25.26	252.48
WBPDCL	100.75	0.00	7.48	4.33	0.10	20.05	27.30	160.01
Average of SEBs	55.75	86.86	9.73	32.68	5.27	18.58	31.33	240.20
II.EDs								
1. Arunachal Pradesh	97.11	63.69	92.08	60.37	0.00	45.81	87.59	446.64
2. Goa	0.00	142.12	3.60	17.60	0.00	2.47	0.24	166.02
3. Manipur	0.84	54.47	20.95	15.98	0.00	35.20	1.34	128.79
4. Mizoram	43.84	218.59	115.15	95.08	2.03	0.00	110.37	585.05
5. Nagaland	0.23	186.44	73.70	82.11	4.40	0.00	0.00	346.88
6. Pondicherry	0.00	134.54	1.60	4.94	0.00	12.94	0.00	154.02
7. Sikkim	1.81	32.44	82.73	59.26	0.00	0.00	0.00	176.25
8. Tripura	52.64	43.64	32.44	56.07	0.00	36.89	23.06	244.74
Average of EDs	10.33	118.21	19.51	25.24	0.25	14.03	8.83	196.38
All India Average	55.26	87.20	9.84	32.60	5.22	18.53	31.09	239.73

COST STRUCTURE OF SEBs, 1998-99 (Provisional)

SEBs	(Paise/Kwh of sale)							Total
	Fuel	Power Purchase	O & M	Estt/ Admn.	Misc. exp.	Depre- ciation	Interest	
1. Andhra Pradesh	60.81	102.64	8.63	29.91	11.36	18.20	56.17	287.72
2. Assam	19.99	93.58	10.07	55.90	6.90	29.66	81.38	297.48
3. Bihar	30.12	173.52	12.55	45.18	0.00	20.77	17.00	299.15
4. Delhi(DVB)	34.14	331.97	19.55	39.85	0.00	16.10	16.85	458.46
5. Gujarat	93.76	104.69	6.17	27.85	0.00	19.22	24.91	276.57
6. Haryana/HVPN	21.27	165.01	9.59	47.71	26.97	16.17	26.99	313.72
HPGC	116.27	0.00	4.54	11.29	3.31	9.08	24.72	169.21
7. Himachal Pradesh	0.00	55.55	20.57	68.88	0.33	7.08	40.68	193.08
8. Jammu & Kashmir	0.82	229.91	5.29	31.75	0.00	15.18	42.31	325.26
9. Karnataka SEB	6.38	141.20	7.95	43.26	1.64	15.27	23.53	239.23
KPC	39.02	0.00	2.23	8.58	2.54	9.90	18.09	80.36
10. Kerala	4.50	61.63	5.27	47.69	14.88	13.11	32.15	179.24
11. Madhya Pradesh	46.07	83.87	9.64	40.15	5.85	15.68	49.34	250.59
12. Maharashtra	71.76	61.11	12.13	28.36	9.30	22.49	18.20	223.35
13. Meghalaya	0.00	10.54	25.72	95.20	0.00	27.67	61.53	220.65
14. Orissa (GRIDCO)	0.00	211.35	15.79	56.67	2.11	32.05	32.79	350.75
i) OHPC	0.00	0.00	2.30	12.04	0.36	13.36	2.11	30.18
ii) OPGC	41.11	0.81	5.83	3.95	0.14	29.56	30.56	111.96
15. Punjab	69.02	44.35	7.36	52.57	0.00	15.62	46.82	235.74
16. Rajasthan	48.22	121.77	7.94	28.74	29.10	18.67	33.44	287.87
17. Tamil Nadu	77.10	63.47	5.66	44.44	5.76	15.63	17.10	229.16
18. Uttar Pradesh	45.70	75.65	13.88	46.72	0.36	28.05	57.35	267.71
19. West Bengal SEB	31.65	172.91	8.02	34.22	6.74	13.06	33.77	300.36
WBPDCL	99.24	0.00	6.98	6.08	2.35	17.34	19.18	151.16
Average of SEBs	53.06	101.29	9.69	38.89	6.77	19.00	34.23	262.93
II.EDs								
1. Arunachal Pradesh	47.07	61.83	156.48	133.69	0.00	92.34	138.01	629.43
2. Goa	0.00	174.34	8.75	22.32	0.00	2.63	1.85	209.90
3. Manipur	1.56	52.48	27.76	21.24	0.00	71.95	75.91	250.89
4. Mizoram	35.42	205.51	98.47	78.14	1.65	0.00	0.00	419.19
5. Nagaland	0.23	210.15	76.19	101.63	5.03	0.00	0.00	393.22
6. Pondicherry	0.00	153.31	1.68	4.90	0.00	12.29	0.00	172.18
7. Sikkim	7.74	29.61	84.21	91.62	0.00	0.00	0.00	213.18
8. Tripura	30.25	28.63	17.82	44.38	0.00	26.29	16.02	163.39
Average of EDs	7.22	134.27	21.41	30.29	0.26	15.62	11.49	220.56
All India Average	52.58	101.64	9.81	38.80	6.71	18.96	33.99	262.48

COST STRUCTURE OF SEBs, 1999-2000 (RE)

SEBs	(Paise/Kwh of sale)							Total
	Fuel	Power Purchase	O & M	Estt/ Admn.	Misc. exp.	Depre- ciation	Interest	
1. Andhra Pradesh	0.00	208.99	5.01	26.41	4.91	10.62	39.56	295.50
APGENCO	80.74	0.16	6.48	7.03	0.00	8.26	24.10	126.76
2. Assam	48.67	172.76	15.44	108.22	10.71	45.80	109.77	511.38
3. Bihar	25.59	196.06	12.10	48.74	0.00	21.51	14.53	318.54
4. Delhi(DVB)	38.80	348.58	23.79	41.04	0.00	18.25	19.66	490.12
5. Gujarat	97.04	128.85	6.34	30.84	0.00	19.25	25.34	307.66
6. Haryana/HVPN	6.11	230.85	7.73	53.09	-1.88	15.29	31.88	343.07
HPGC	175.63	0.00	8.49	20.62	2.95	14.73	46.88	269.31
7. Himachal Pradesh	0.00	70.79	23.78	61.17	0.00	7.23	41.22	204.19
8. Jammu & Kashmir	1.63	240.43	6.17	34.31	0.00	16.00	48.91	347.44
9. Karnataka SEB	9.37	151.71	7.87	43.00	1.84	15.92	25.82	255.53
KPC	45.92	0.00	2.98	9.28	2.43	13.71	18.07	92.40
10. Kerala	16.24	98.81	5.74	48.04	6.08	15.73	53.55	244.19
11. Madhya Pradesh	49.58	94.82	10.48	46.10	6.24	16.18	37.44	260.83
12. Maharashtra	65.46	88.20	12.49	30.96	11.29	24.26	28.58	261.24
13. Meghalaya	0.00	12.62	26.83	103.50	0.00	27.85	59.07	229.87
14. Orissa (GRIDCO)	0.00	130.39	4.97	11.11	2.05	8.21	27.46	184.19
i) OHPC	0.00	0.00	3.50	12.46	0.00	15.06	2.10	33.13
ii) OPGC	41.28	1.27	4.85	5.71	2.66	26.71	19.93	102.42
15. Punjab	78.26	43.89	8.63	47.98	0.00	17.34	51.06	247.15
16. Rajasthan	60.77	138.93	8.31	31.15	30.63	22.25	42.54	334.58
17. Tamil Nadu	78.01	82.79	5.69	46.67	1.87	16.85	21.20	253.09
18. Uttar Pradesh	49.32	82.05	14.84	40.48	0.37	27.89	73.13	288.09
19. West Bengal SEB	35.04	177.62	9.79	38.62	7.39	15.30	34.67	318.42
WBPDCL	91.22	0.00	8.00	6.33	0.50	17.50	20.33	143.88
Average SEBs	48.96	125.70	9.62	38.63	5.16	18.81	36.79	283.67
II.EDs								
1. Arunachal Pradesh	53.82	76.89	106.60	142.38	0.00	95.40	132.89	607.97
2. Goa	0.00	243.91	11.67	23.42	0.00	2.80	1.93	283.73
3. Manipur	3.65	200.27	21.32	44.50	0.00	145.94	15.84	431.53
4. Mizoram	31.94	227.23	92.34	86.31	1.70	0.00	76.54	516.06
5. Nagaland	0.29	206.22	62.30	120.26	4.20	0.00	0.00	393.27
6. Pondicherry	0.00	159.82	1.70	4.83	0.00	11.15	0.00	177.49
7. Sikkim	10.30	28.35	97.34	72.96	0.00	0.00	0.00	208.96
8. Tripura	61.37	99.14	21.83	61.37	0.00	28.33	21.24	293.28
Average of EDs	10.84	178.92	20.33	34.10	0.23	22.12	11.03	277.56
All India Average	48.55	126.28	9.74	38.58	5.10	18.85	36.51	283.60

COST STRUCTURE OF SEBs, 2000-01 (AP)

SEBs	(Paise/Kwh of sale)							Total
	Fuel	Power Purchase	O & M	Estt/ Admn.	Misc. exp.	Depre- ciation	Interest	
1. Andhra Pradesh	0.00	256.02	5.01	26.84	5.08	12.66	47.71	353.31
APGENCO	82.45	0.18	7.34	7.90	0.00	9.44	27.45	134.76
2. Assam	56.87	168.26	15.31	127.60	10.37	44.14	119.10	541.66
3. Bihar	24.73	193.16	11.59	86.67	0.00	22.01	12.76	350.93
4. Delhi(DVB)	40.95	325.08	20.47	36.99	0.00	18.18	17.85	459.53
5. Gujarat	101.75	141.16	6.80	35.74	0.00	21.63	28.50	335.59
6. Haryana/HVPN	5.81	250.57	8.06	54.09	-2.82	15.21	29.05	359.98
HPGC	195.61	0.00	8.34	19.11	0.00	14.15	46.83	284.03
7. Himachal Pradesh	0.00	69.85	25.32	68.39	0.00	7.77	47.42	218.75
8. Jammu & Kashmir	1.40	240.72	6.27	32.09	0.00	14.61	45.93	341.01
9. Karnataka SEB	12.48	204.22	8.55	46.87	1.84	18.04	28.67	320.65
KPC	59.66	0.00	3.44	10.69	2.20	15.12	21.02	112.12
10. Kerala	27.61	125.37	5.37	46.80	5.08	16.35	49.38	275.96
11. Madhya Pradesh	52.75	103.39	10.68	44.82	6.26	17.35	37.11	272.38
12. Maharashtra	65.08	93.26	13.46	32.29	11.76	24.47	32.81	273.13
13. Meghalaya	0.00	22.47	30.78	119.25	0.00	30.87	64.29	267.66
14. Orissa (GRIDCO)	0.00	120.97	4.92	11.13	1.90	8.34	30.19	177.45
i) OHPC	0.00	0.00	2.74	9.12	0.00	10.08	0.88	22.81
ii) OPGC	40.80	0.96	7.75	7.15	1.29	26.29	15.23	99.47
15. Punjab	74.18	42.87	9.46	50.20	0.00	19.49	50.97	247.17
16. Rajasthan	63.53	134.46	8.53	31.99	26.64	23.01	46.29	334.45
17. Tamil Nadu	88.98	89.89	5.76	47.25	1.90	18.69	23.17	275.64
18. Uttar Pradesh	49.41	85.78	15.74	40.12	0.39	28.80	73.36	293.59
19. West Bengal SEB	36.57	193.31	10.79	40.13	7.59	16.03	38.29	342.71
WBPDC	98.41	0.00	8.05	6.10	1.30	21.95	30.61	166.42
Average (I)	50.59	138.53	9.99	40.89	5.00	19.88	38.98	303.86
II.EDs								
1. Arunachal Pradesh	55.09	76.28	105.95	135.62	0.00	95.36	131.38	599.68
2. Goa	0.00	307.54	9.94	21.64	0.00	2.58	4.28	345.98
3. Manipur	19.24	168.17	18.13	24.01	0.00	139.60	10.57	379.72
4. Mizoram	26.03	203.46	81.97	83.86	1.46	0.00	69.28	466.05
5. Nagaland	0.28	204.36	60.05	109.17	4.04	0.00	0.00	377.89
6. Pondicherry	0.00	165.65	1.82	6.24	0.00	10.78	0.00	184.48
7. Sikkim	5.92	29.62	97.93	90.72	0.00	0.00	0.00	224.19
8. Tripura	57.73	87.70	29.42	62.17	0.00	27.31	21.65	285.96
Average of EDs	11.16	197.60	19.69	31.85	0.20	22.77	11.24	294.52
All India Average	50.15	139.20	10.09	40.79	4.95	19.91	38.67	303.75

FUEL CONSUMPTION BY COAL BASED THERMAL UNITS

SEBs	Coal (Kg/Kwh of generation)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 (Provis)	1999-2000 (RE)	2000-01 (AP)
1 Andhra Pradesh	0.84	0.86	0.83	0.83	0.82	0.76	0.75	0.76	0.76
2 Assam	0.00	0.00	0.00	0.67	0.67	0.73	0.80	0.80	0.80
3 Bihar	0.90	0.91	0.95	0.97	1.03	0.93	0.93	0.82	0.82
4 Delhi(DVB)	0.77	NA	NA	0.83	0.84	0.88	0.84	0.79	0.79
5 Gujarat	0.63	0.66	0.67	0.63	0.67	0.70	0.71	0.71	0.71
6 Haryana	0.73	0.80	0.79	0.75	0.86	0.77	0.85	NA	NA
HPGC					NA	NA	0.83	0.81	0.81
7 Himachal Pradesh	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00
8 Jammu & Kashmir	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00
9 Karnataka SEB	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00
KPC	0.74	0.74	0.73	0.78	0.81	0.75	0.73	0.73	0.73
10 Kerala	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00
11 Madhya Pradesh	0.83	0.80	0.82	0.81	0.79	0.79	0.79	0.78	0.78
12 Maharashtra	0.80	0.80	0.80	0.80	0.79	0.79	0.76	0.79	0.79
13 Meghalaya	0.00	0.00	0.00	0.00	NA	0.00	0.00	0.00	0.00
14 Orissa (GRIDCO)	1.01	0.95	0.88	0.00	NA	0.00	0.00	0.00	0.00
OPGC	-	-	-	0.93	0.95	0.91	0.89	0.86	0.92
15 Punjab	0.68	0.74	0.74	0.71	0.70	0.69	0.69	0.68	0.68
16 Rajasthan	0.69	0.70	0.74	0.66	0.65	0.65	0.65	0.70	0.71
17 Tamil Nadu	0.75	0.75	0.75	0.70	0.70	0.74	0.73	0.73	0.73
18 Uttar Pradesh	0.82	0.80	0.80	0.78	0.78	0.78	0.79	0.79	0.76
19 West Bengal SEB	0.59	NA	NA	0.59	0.59	0.63	0.64	0.64	0.64
WBPDC	0.63	0.63	0.65	0.73	0.74	0.77	0.76	0.70	0.69
Average :	0.75	0.77	0.77	0.76	0.76	0.76	0.75	0.75	0.75

SECONDARY OIL CONSUMPTION IN COAL BASED THERMAL UNITS

SEBs	Oil(ml/Kwh of generation)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Actual (Provis)	1999-2000 (RE)	2000-01 (AP)
1 Andhra Pradesh	3.10	2.89	3.08	2.96	2.43	2.13	1.96	2.13	1.82
2 Assam	76.64	0.00	0.00	22.95	12.32	64.59	55.48	42.00	40.00
3 Bihar	23.70	20.13	21.79	23.94	36.34	16.79	29.20	17.84	17.32
4 Delhi(DVB)	25.10	NA	NA	17.81	23.87	19.16	21.14	15.63	17.48
5 Gujarat	8.89	6.91	9.27	12.21	10.70	6.01	3.41	4.07	3.50
6 Haryana	12.65	15.22	14.15	16.13	18.63	11.92	15.99	0.00	0.00
HPGC								11.09	10.23
7 Himachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8 Jammu & Kashmir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 Karnataka SEB	0.00	-	-	0.00	0.00	0.00	0.00	0.00	0.00
KPC	0.90	0.90	0.75	1.39	0.76	0.77	1.78	2.00	1.00
10 Kerala	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11 Madhya Pradesh	14.26	9.67	12.49	7.72	5.02	3.62	2.68	2.69	3.18
12 Maharashtra	5.64	4.64	4.80	4.07	4.07	2.90	2.86	2.79	2.75
13 Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14 Orissa (GRIDCO)	10.20	7.76	13.76	17.03	0.00	0.00	0.00	0.00	0.00
OPGC				9.24	5.22	4.57	1.88	1.21	1.00
15 Punjab	3.27	3.39	5.83	4.27	3.51	1.73	3.49	2.28	2.28
16 Rajasthan	3.83	3.40	4.23	3.83	2.16	1.68	1.68	3.00	3.00
17 Tamil Nadu	2.31	2.35	1.21	24.25	5.14	5.11	8.48	6.72	4.42
18 Uttar Pradesh	7.47	7.19	7.54	4.98	3.86	4.50	5.05	6.64	4.67
19 West Bengal SEB	8.20	NA	NA	4.64	3.80	3.36	3.30	3.42	3.99
WBPDCL	9.00	7.31	7.12	6.16	4.73	3.03	3.51	3.50	0.50
Average :	7.82	5.61	6.64	10.80	5.51	4.17	4.32	4.13	3.47

COST OF COAL PER UNIT OF GENERATION

(Paise/Kwh)

SEBs	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	Actual	Actual	Actual	Actual	Actual (Provis)	(RE)	(AP)
1. Andhra Pradesh	51.56	61.38	64.46	69.17	77.36	81.47	87.93	98.40	102.63
2. Assam	0.00	0.00	0.00	98.93	107.74	126.35	161.50	171.00	171.00
3. Bihar	40.10	45.76	48.51	56.76	62.17	71.79	79.57	85.61	73.19
4. Delhi(DVB)	79.00	NA	NA	108.88	118.75	133.94	144.23	144.48	173.66
5. Gujarat	66.61	83.61	99.75	89.22	107.21	122.05	129.05	135.24	142.85
6. Haryana	0.00	102.52	108.01	110.41	138.33	146.20	95.17	NA	NA
HPGC					NA	NA	154.55	151.66	166.24
7. Himachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8. Jammu & Kashmir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9. Karnataka SEB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KPC	61.60	61.60	68.55	84.46	94.21	98.51	98.54	110.28	121.31
10.Kerala	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.Madhya Pradesh	29.30	32.73	40.63	44.65	56.10	65.01	65.85	69.07	73.97
12.Maharashtra	49.06	56.77	59.03	60.85	72.18	79.61	83.90	80.74	80.01
13.Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.Orissa (GRIDCO)	28.00	28.39	31.85	28.41	NA	NA	NA	NA	NA
OPGC				33.35	34.74	36.71	39.44	38.85	39.34
15.Punjab	68.70	86.30	91.75	100.85	108.00	123.03	123.19	126.03	126.03
16.Rajasthan	65.40	71.14		NA	97.47	106.78	106.78	125.84	127.71
17.Tamil Nadu	86.80	93.33	96.51	97.60	111.48	122.31	117.61	117.17	133.96
18.Uttar Pradesh	42.90	49.81	48.26	50.79	52.12	62.67	65.48	66.91	66.95
19.West Bengal SEB	53.00	-	-	66.37	81.28	94.70	100.79	95.59	95.61
WBPCD	45.30	51.20	58.00	61.12	71.83	87.88	86.49	78.75	82.11
Average :	53.35	64.20	66.63	70.09	82.52	92.11	93.60	96.78	101.09

COST OF OIL PER UNIT OF GENERATION

SEBs	(Paise/Kwh)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 (Provis)	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	1.50	1.77	1.86	1.76	1.57	1.74	1.66	1.68	1.47
2. Assam	0.00	0.00	0.00	13.94	9.75	67.06	8.25	43.91	50.75
3. Bihar	12.00	13.16	12.77	13.53	24.19	18.92	18.84	16.92	14.93
4. Delhi(DVB)	10.30	NA	NA	9.84	17.70	14.86	17.51	15.20	17.80
5. Gujarat	3.90	3.91	5.34	6.99	8.29	3.85	3.25	3.30	3.71
6. Haryana (HVPN)	0.00	NA	NA	10.47	NA	NA	NA	NA	NA
HPGC							6.30	9.78	12.43
7. Himachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8. Jammu & Kashmir	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9. Karnataka SEB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KPC	0.40	0.40	0.37	0.99	0.47	0.55	1.26	1.48	0.78
10.Kerala	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11.Madhya Pradesh	7.20	5.66	7.68	4.79	3.51	2.89	2.01	2.16	2.64
12.Maharashtra	3.27	3.58	3.62	2.56	2.70	2.91	2.91	1.90	1.88
13.Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14.Orissa (GRIDCO)	6.00	5.61	10.12	19.93	NA	NA	NA	NA	NA
OPGC				3.72	3.99	3.92	1.75	1.30	1.46
15.Punjab	1.60	2.74	3.14	2.33	2.09	1.16	1.34	1.79	1.79
16.Rajasthan	1.60	1.65		NA	1.52	1.19	1.19	2.03	2.20
17.Tamil Nadu	1.20	1.32	0.75	10.40	3.83	3.26	5.74	6.13	5.15
18.Uttar Pradesh	3.90	4.25	5.22	3.18	2.91	3.84	4.33	6.40	4.55
19.West Bengal SEB	4.50	NA	NA	3.68	3.34	3.43	3.55	4.29	5.78
WBPDCL	5.30	4.60	5.00	4.38	3.91	2.72	3.22	3.67	6.00
Average :	3.70	3.54	3.97	6.80	4.18	3.73	3.95	4.06	4.10

TOTAL COST OF PURCHASE OF POWER

(Rs.crore)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	Actual	Actual	Actual	Actual	(Provis)	(RE)	(AP)
I. SEBs									
1. Andhra Pradesh	592	743	940	983	1049	1767	2591	5752	7703
2. Assam	61	86	119	150	220	240	249	378	401
3. Bihar	399	499	596	804	1100	1360	1520	1823	1930
4. Delhi(DVB)	810	-	1266	1472	1692	2177	2712	2931	3335
5. Gujarat	428	565	596	1059	1492	1926	3018	3982	4463
6. Haryana	326	503	486	700	810	976	1533	2162	2654
7. Himachal Pradesh	36	46	64	101	137	173	169	230	240
8. Jammu & Kashmir	130	185	223	225	350	518	661	701	818
9. Karnataka	713	957	1075	1491	1706	1859	2246	2717	3691
10. Kerala	97	183	218	271	363	543	563	1007	1530
11. Madhya Pradesh	719	904	1003	1376	1827	1870	2236	2596	3088
12. Maharashtra	873	1035	1059	2066	2279	2600	2831	4437	4933
13. Meghalaya	0	1	3	4	4	5	5	7	12
14. Orissa	134	248	306	653	983	1200	1151	1260	1275
15. Punjab	252	349	463	532	628	938	926	946	975
16. Rajasthan	538	734	891	1086	1134	1545	1545	1603	1686
17. Tamil Nadu	525	661	823	870	979	1277	1768	2460	2770
18. Uttar Pradesh	1018	1306	1423	1388	1677	1951	2165	2416	2619
19. West Bengal	446	572	712	902	1033	1399	1716	1769	2060
Sub-total :(I)	8097	9576	12268	16131	19464	24323	29606	39175	46183
II.EDs									
1. Arunachal Pradesh	2	3	4	4	5	7	6	8	9
2. Goa	61	80	88	101	117	150	186	260	371
3. Manipur	16	10	19	21	32	18	9	52	56
4. Mizoram	5	7	9	15	17	18	21	27	28
5. Nagaland	11	11	12	19	24	25	27	29	29
6. Pondicherry	66	75	92	100	108	126	162	199	227
7. Sikkim	2	2	1	1	2	3	3	3	3
8. Tripura	3	6	11	14	13	14	13	42	40
Sub-total :(II)	167	193	235	276	318	361	428	619	763
Grand total :	8263	9769	12503	16407	19782	24684	30033	39793	46946

RATE OF PURCHASE OF POWER

(Paise/Kwh)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	Actual	Actual	Actual	Actual	(Provis)	(RE)	(AP)
I. SEBs									
1. Andhra Pradesh	82.22	90.05	103.00	112.54	123.34	157.99	150.43	141.12	174.08
2. Assam	58.71	69.64	109.31	130.68	153.37	137.35	125.89	182.56	193.53
3. Bihar	89.03	99.92	98.29	117.21	150.30	170.40	170.92	184.73	185.40
4. Delhi(DVB)	100.21	NA	107.55	134.04	138.03	185.93	190.13	191.29	203.24
5. Gujarat	78.65	81.93	84.53	108.08	132.55	152.19	199.01	240.02	260.57
6. Haryana	78.31	100.80	103.84	114.45	128.34	146.88	172.92	194.08	209.16
7. Himachal Pradesh	35.73	41.67	44.37	60.07	74.84	84.20	85.33	95.51	100.25
8. Jammu & Kashmir	65.39	81.28	97.72	90.46	123.34	130.65	139.88	144.47	150.07
9. Karnataka	47.24	58.65	58.48	80.80	96.40	90.76	103.97	111.11	149.80
10. Kerala	78.82	90.57	96.83	102.61	110.20	128.07	156.56	215.19	244.59
11. Madhya Pradesh	75.24	87.49	93.08	113.15	142.52	145.08	156.29	172.46	184.54
12. Maharashtra	96.62	107.34	110.54	155.78	177.18	175.40	182.65	230.03	236.94
13. Meghalaya	0.00	14.81	32.23	77.34	46.80	59.54	57.77	84.20	92.00
14. Orissa	64.24	65.75	70.21	104.15	101.82	116.22	108.96	123.21	114.31
15. Punjab	72.30	86.67	113.58	106.92	123.44	141.05	147.01	153.77	151.44
16. Rajasthan	80.28	97.68	107.74	108.76	103.90	141.34	141.34	141.84	146.83
17. Tamil Nadu	72.33	81.97	91.06	99.38	89.03	116.07	135.71	171.78	191.24
18. Uttar Pradesh	79.39	102.25	106.72	98.95	119.73	134.16	136.98	150.08	157.40
19. West Bengal	80.13	97.40	104.68	106.66	118.51	155.04	169.42	168.45	183.92
Average :(I)	76.17	86.96	94.02	109.86	119.05	140.66	151.86	166.59	184.16
II. EDs									
1. Arunachal Pradesh	89.96	89.80	89.55	74.94	75.00	89.93	72.61	90.00	90.00
2. Goa	74.50	80.99	87.29	87.98	92.07	108.88	123.57	182.46	233.75
3. Manipur	64.91	35.82	78.49	81.18	106.45	50.68	25.14	147.31	160.05
4. Mizoram	74.97	75.47	83.95	121.85	113.38	130.41	123.71	146.59	137.03
5. Nagaland	83.40	77.13	83.33	122.97	135.12	132.97	151.10	150.95	151.03
6. Pondicherry	79.81	90.20	94.56	102.25	109.84	115.98	132.66	138.62	144.12
7. Sikkim	79.92	65.50	36.94	24.04	38.17	56.15	40.96	42.86	66.67
8. Tripura	46.41	60.87	99.58	107.14	100.37	92.90	58.65	178.72	158.00
Average :(II)	75.24	77.77	88.88	95.26	101.65	105.48	111.69	155.63	177.17
All India	76.15	86.76	93.92	109.58	118.72	139.98	151.09	166.41	184.04

SHARE OF O&M IN TOTAL COST

	(%)				
	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	(Provis)	(RE)	(AP)
1. Andhra Pradesh	4.17	3.56	3.00	5.11	5.45
2. Assam	3.50	2.90	3.39	3.02	2.83
3. Bihar	5.01	4.57	4.20	3.80	3.30
4. Delhi(DVB)	3.43	4.59	4.26	4.85	4.45
5. Gujarat	2.75	2.91	2.23	2.06	2.03
6. Haryana	4.61	4.06	3.06	2.25	2.24
HPGC	NA	NA	2.68	3.15	2.94
7. Himachal Pradesh	10.87	10.55	10.65	11.64	11.57
8. Jammu & Kashmir	2.11	1.65	1.63	1.78	1.84
9. Karnataka SEB	3.73	3.24	3.32	3.08	2.67
KPC	2.64	2.98	2.78	3.23	3.07
10. Kerala	3.47	2.94	2.94	2.35	1.94
11. Madhya Pradesh	4.19	4.50	3.85	4.02	3.92
12. Maharashtra	5.45	6.24	5.43	4.78	4.93
13. Meghalaya	12.74	12.30	11.65	11.67	11.50
14. Orissa (GRIDCO)	2.76	3.15	4.50	2.70	2.77
OHPC	8.38	7.63	7.63	10.57	2.77
OPGC	5.12	3.52	5.21	4.74	12.00
15. Punjab	3.33	3.41	3.12	3.49	3.83
16. Rajasthan	4.55	3.73	2.76	2.48	2.55
17. Tamil Nadu	2.61	2.33	2.47	2.25	2.09
18. Uttar Pradesh	4.82	4.90	5.18	5.15	5.36
19. West Bengal	3.77	2.72	2.67	3.07	3.15
WBPDC	4.11	4.68	4.62	5.56	4.84
Average : SEBs	4.10	4.05	3.68	3.39	3.29
EDs					
1. Arunachal Pradesh	23.78	20.62	24.86	17.53	17.67
2. Goa	1.49	2.17	4.17	4.11	2.87
3. Manipur	8.40	16.27	11.06	4.94	4.77
4. Mizoram	19.86	19.68	23.49	17.89	17.59
5. Nagaland	21.12	21.25	19.37	15.84	15.89
6. Pondicherry	1.03	1.04	0.98	0.96	0.99
7. Sikkim	49.74	46.94	39.50	46.59	43.68
8. Tripura	18.83	13.26	10.91	7.44	10.29
Average of EDs	10.54	9.93	9.71	7.32	6.69
All India Average	4.16	4.10	3.74	3.43	3.32

SHARE OF ESTT./ADMN. IN TOTAL COST

SEBs	(%)				
	1996-97 Actual	1997-98 Actual	1998-99 (Provis)	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	12.15	11.13	10.39	5.54	5.86
2. Assam	19.33	21.41	18.79	21.16	23.56
3. Bihar	16.12	15.68	15.10	15.30	24.70
4. Delhi(DVB)	10.32	6.93	8.69	8.37	8.05
5. Gujarat	9.23	8.50	10.07	10.02	10.65
6. Haryana	15.76	16.79	15.21	15.48	15.03
HPGC	NA	NA	6.67	7.66	6.73
7. Himachal Pradesh	27.67	27.09	35.67	29.96	31.27
8. Jammu & Kashmir	10.40	8.08	9.76	9.87	9.41
9. Karnataka SEB	17.37	16.37	18.08	16.83	14.62
KPC	10.54	10.08	10.68	10.04	9.53
10. Kerala	30.34	28.57	26.61	19.67	16.96
11. Madhya Pradesh	14.23	16.72	16.02	17.68	16.46
12. Maharashtra	11.85	11.39	12.70	11.85	11.82
13. Meghalaya	45.92	45.30	43.14	45.02	44.55
14. Orissa (GRIDCO)	15.71	15.36	16.16	6.03	6.27
OHPC	25.29	39.90	39.90	37.62	39.98
OPGC	3.76	4.45	3.53	5.58	7.19
15. Punjab	17.08	16.53	22.30	19.41	20.31
16. Rajasthan	8.91	9.50	9.98	9.31	9.56
17. Tamil Nadu	17.25	18.31	19.39	18.44	17.14
18. Uttar Pradesh	13.26	13.35	17.45	14.05	13.66
19. West Bengal SEB	11.57	10.25	11.39	12.13	11.71
WBPDC *	2.67	2.70	4.02	4.40	3.67
Average : SEBs	13.76	13.61	14.79	13.62	13.46
<u>II. EDs</u>					
1. Arunachal Pradesh	9.50	13.52	21.24	23.42	22.61
2. Goa	12.47	10.60	10.64	8.25	6.25
3. Manipur	10.43	12.41	8.47	10.31	6.32
4. Mizoram	17.17	16.25	18.64	16.72	17.99
5. Nagaland	24.35	23.67	25.85	30.58	28.89
6. Pondicherry	2.46	3.21	2.84	2.72	3.38
7. Sikkim	34.19	33.62	42.98	34.92	40.47
8. Tripura	18.80	22.91	27.16	20.93	21.74
Average of EDs	12.53	12.85	13.73	12.29	10.82
All India Average	13.74	13.60	14.78	13.60	13.43

SHARE OF DEPRECIATION IN TOTAL COST

	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	(Provis)	(RE)	(AP)
(%)					
I. SEBs					
1. Andhra Pradesh					
i) APSEB/APTRANSCO	9.32	7.57	6.33	3.59	3.58
ii) APGENCO				6.51	7.00
2. Assam	9.22	9.07	9.97	8.96	8.15
3. Bihar	8.40	7.65	6.94	6.75	6.27
4. Delhi(DVB)	4.07	3.84	3.51	3.72	3.96
5. Gujarat	8.02	7.77	6.95	6.26	6.45
6. Haryana	6.71	5.68	5.16	4.46	4.23
HPGC			5.37	5.47	4.98
7. Himachal Pradesh	3.87	3.85	3.67	3.54	3.55
8. Jammu & Kashmir	5.99	5.10	4.67	4.60	4.28
9. Karnataka SEB	7.12	6.86	6.38	6.23	5.63
KPC	13.53	12.53	12.32	14.84	13.48
10. Kerala	5.84	5.05	7.32	6.44	5.93
11. Madhya Pradesh	8.21	7.54	6.26	6.20	6.37
12. Maharashtra	10.57	10.18	10.07	9.29	8.96
13. Meghalaya	8.54	13.44	12.54	12.12	11.53
14. Orissa					
i) OSEB/GRIDCO	8.45	7.68	9.14	4.46	4.70
ii) OHPC	58.77	44.29	44.29	45.47	44.18
iii) OPGC	36.73	32.46	27.30	19.46	15.31
15. Punjab	9.05	7.50	6.63	7.01	7.88
16. Rajasthan	6.97	6.75	6.48	6.65	6.88
17. Tamil Nadu	6.64	6.75	6.82	6.66	6.78
18. Uttar Pradesh	1.80	1.77	1.69	1.80	1.90
19. West Bengal SEB	5.47	4.91	4.35	4.80	4.68
WBPDC	13.76	12.53	11.47	12.16	13.19
Average : SEBs	8.01	7.37	6.90	6.71	6.67
II. EDs					
1. Arunachal Pradesh	10.84	10.26	14.67	15.69	15.90
2. Goa	1.75	1.49	1.25	0.99	0.75
3. Manipur	17.78	27.33	28.68	33.82	36.76
4. Mizoram	0.00	0.00	0.00	0.00	0.00
5. Nagaland	0.00	0.00	0.00	0.00	0.00
6. Pondicherry	8.82	8.40	7.14	6.28	5.84
7. Sikkim	0.00	0.00	0.00	0.00	0.00
8. Tripura	15.01	15.07	16.09	9.66	9.55
Average of EDs	7.55	7.14	7.03	7.97	7.73
All India Average	8.00	7.37	6.90	6.72	6.68

SHARE OF INTEREST IN TOTAL COST

	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	(Provis)	(RE)	(AP)
(%)					
I. SEBs					
1. Andhra Pradesh					
i) APSEB/APTRANSCO	19.40	17.34	19.52	13.39	13.50
ii) APGENCO				19.01	20.37
2. Assam	34.25	29.04	27.36	21.46	21.99
3. Bihar	7.71	6.66	5.68	4.56	3.64
4. Delhi(DVB)	3.89	3.77	3.68	4.01	3.89
5. Gujarat	11.29	10.77	9.01	8.24	8.49
6. Haryana	12.59	11.04	8.60	9.29	8.07
HPGC			14.61	17.41	16.49
7. Himachal Pradesh	22.08	22.42	21.07	20.19	21.68
8. Jammu & Kashmir	15.79	13.90	13.01	14.08	13.47
9. Karnataka SEB	8.56	10.57	9.83	10.11	8.94
KPC	21.59	22.54	22.51	19.56	18.75
10. Kerala	20.96	19.22	17.94	21.93	17.89
11. Madhya Pradesh	16.97	14.84	19.69	14.35	13.63
12. Maharashtra	9.72	8.77	8.15	10.94	12.01
13. Meghalaya	27.13	24.25	27.89	25.70	24.02
14. Orissa					
i) OSEB/GRIDCO	6.50	6.82	9.35	14.91	17.02
ii) OHPC	7.53	6.98	6.98	6.34	3.84
iii) OPGC	36.73	32.46	27.30	19.46	15.31
15. Punjab	17.88	18.22	19.86	20.66	20.62
16. Rajasthan	12.43	11.70	11.62	12.71	13.84
17. Tamil Nadu	8.90	8.30	7.46	8.38	8.41
18. Uttar Pradesh	24.76	24.30	21.42	25.38	24.99
19. West Bengal SEB	11.27	10.01	11.24	10.89	11.17
WBPDCL	17.94	17.06	12.69	14.13	18.39
Average :	14.05	13.32	13.22	13.37	13.28
II. EDs					
1. Arunachal Pradesh	21.53	19.61	21.93	21.86	21.91
2. Goa	0.00	0.14	0.88	0.68	1.24
3. Manipur	15.92	1.04	30.26	3.67	2.78
4. Mizoram	15.79	18.86	10.23	14.83	14.86
5. Nagaland	0.00	0.00	0.00	0.00	0.00
6. Pondicherry	0.00	0.00	0.00	0.00	0.00
7. Sikkim	0.00	0.00	0.00	0.00	0.00
8. Tripura	12.50	9.42	9.80	7.24	7.57
Average of EDs	6.54	4.49	5.87	3.97	3.82
All India Average	13.99	13.25	13.15	13.27	13.18

NUMBER OF CONSUMERS OF ELECTRICITY

(Million)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
		Actual	Actual	Actual	Actual	Actual	(Provis)	(RE)	(AP)
I. SEBs									
1. Andhra Pradesh/APTRANSCO	7.70	8.07	8.41	8.91	9.48	10.04	10.44	10.44	10.44
2. Assam	0.60	0.63	0.66	0.68	0.71	0.76	0.80	0.84	0.87
3. Bihar	1.62	1.72	1.72	1.78	1.96	1.98	2.10	2.15	2.20
4. Delhi(DVB)	1.83	2.12	2.15	2.19	2.20	2.28	2.40	2.46	2.51
5. Gujarat	5.54	5.67	5.84	6.01	6.13	6.38	6.62	6.62	6.62
6. Haryana	2.84	2.97	3.07	3.17	3.59	3.39	3.42	4.26	4.42
7. Himachal Pradesh	1.05	1.09	1.13	1.18	1.23	1.29	1.35	1.41	1.47
8. Jammu & Kashmir	0.63	0.64	0.65	0.67	0.69	0.71	0.79	0.81	0.84
9. Karnataka	6.07	6.42	6.78	7.12	7.44	7.81	8.18	8.18	8.18
10. Kerala	3.93	4.15	4.42	4.69	4.92	5.21	5.64	5.13	6.22
11. Madhya Pradesh	6.01	6.19	6.59	7.06	7.42	7.63	7.98	7.98	7.98
12. Maharashtra	9.27	9.74	10.27	10.87	11.42	11.96	12.52	12.52	12.52
13. Meghalaya	0.09	0.10	0.10	0.10	0.11	0.11	0.12	0.13	0.13
14. Orissa (GRIDCO)	1.11	1.16	1.23	1.27	1.28	1.29	1.36	1.36	1.37
15. Punjab	3.99	4.18	4.24	4.51	4.67	4.78	4.92	4.92	4.92
16. Rajasthan	3.68	3.92	4.13	4.38	4.61	4.86	4.86	5.00	5.15
17. Tamil Nadu	9.16	9.22	9.75	10.28	11.04	11.72	12.40	13.15	13.94
18. Uttar Pradesh	5.27	5.59	5.89	6.14	6.45	6.71	7.70	8.18	8.71
19. West Bengal	1.79	1.98	2.11	2.34	2.40	2.63	2.89	3.18	3.50
Sub-total :(I)	72.18	75.56	79.14	83.35	87.75	91.53	96.49	98.72	101.99
II.EDs									
1. Arunachal Pradesh	0.07	0.07	0.07	0.08	0.09	0.10	0.11	0.11	0.12
2. Goa	0.31	0.32	0.34	0.36	0.37	0.38	0.39	0.40	0.40
3. Manipur	0.11	0.12	0.13	0.13	0.13	0.14	0.15	0.20	0.23
4. Mizoram	0.05	0.06	0.07	0.07	0.07	0.08	0.09	0.09	0.10
5. Nagaland	0.08	0.09	0.09	0.10	0.11	0.12	0.13	0.13	0.14
6. Pondicherry	0.14	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.22
7. Sikkim	0.03	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.06
8. Tripura	0.11	0.12	0.13	0.13	0.13	0.15	0.16	0.18	0.19
Sub-total :(II)	0.90	0.97	1.03	1.08	1.13	1.21	1.27	1.37	1.44
Grand total :(I+II)	73.08	76.53	80.17	84.43	88.88	92.74	97.76	100.08	103.43

NUMBER OF EMPLOYEES

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	Actual	Actual	Actual	Actual	(Provis)	(RE)	(AP)
I.SEBs									
1. Andhra Pradesh/APTRANSCO APGENCO	71979	72511	72432	72397	72810	74264	74264	59674	59674
								15150	15150
2. Assam	23201	21883	21562	20882	20532	20219	19720	19270	18620
3. Bihar	42430	40551	39719	38740	37719	36794	36000	33832	33832
4. Delhi(DVB)	26100	26300	26300	27504	25885	24691	24734	24014	24014
5. Gujarat	45991	46588	47247	48153	48519	48700	48978	48978	48978
6. Haryana/HVPM HPGC	45000	48072	48072	48072	48072	48072	43072	38104	37920
							4983	5047	4997
7. Himachal Pradesh	11362	12500	13000	13500	14200	15000	15000	17000	17500
8. Jammu & Kashmir	16449	16486	16996	18296	18500	18500	20500	21600	23800
9. Karnataka KPC	45217	44542	44406	44620	43634	42001	41822	41822	41822
	8243	8295	8186	8104	7954	7867	7885	7900	7900
10. Kerala	23957	25765	25372	26900	26900	26000	26400	25900	26112
11. Madhya Pradesh	82911	83707	83997	87961	87950	88060	88243	88243	88243
12. Maharashtra	111514	111514	111514	110662	110874	110905	112167	112167	112167
13. Meghalaya	4596	4439	4374	4323	4325	4363	4280	4174	4100
14. Orissa (GRIDCO) OHPC	33008	31983	30217	30685	30065	30165	29500	7500	7500
					6139	6139	6139	6139	6139
					NA	NA	NA	NA	NA
15. Punjab	71416	72065	71574	72599	73563	80329	83148	83148	83148
16. Rajasthan	59008	57450	56846	57130	56113	56465	56465	56800	57000
17. Tamil Nadu	95299	93869	90086	89044	91038	96495	93649	93200	93000
18. Uttar Pradesh	98809	97812	97711	96153	94557	92732	89000	88500	88100
19. West Bengal WBPDCL	39876	39378	39465	39965	38098	38589	38120	38120	37544
	1686	1950	1980	1982	2100	2182	2268	2350	2500
Sub-total :(I)	958052	957660	951056	957672	959547	968532	966337	938632	939760
II.EDs									
1. Arunachal Pradesh	3500	3700	4000	4000	4100	4300	5900	5400	5400
2. Goa	3907	3939	3917	3938	4254	3951	4087	4240	4240
3. Manipur	5734	5694	5694	5760	5755	5756	5740	5740	5740
4. Mizoram	1128	1128	1128	1128	1128	1128	1128	1158	1178
5. Nagaland	3425	3425	3425	3425	3683	3683	3956	4504	4504
6. Pondicherry	1546	1586	1775	1775	1775	1775	1837	1837	1837
7. Sikkim	1231	1231	1295	1317	1350	1230	1230	1230	1600
8. Tripura	5090	5027	4986	5031	4870	5681	5883	5585	5450
Sub-total :(II)	25561	25730	26220	26374	26915	27504	29761	29694	29949
Grand total :(I+II)	983613	983390	977276	984046	986462	996036	996098	968326	969709

**NUMBER OF EMPLOYEES
PER MKWH OF ELECTRICITY SOLD**

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	Actual	Actual	Actual	Actual	(Provis)	(RE)	(AP)
I. SEBs									
1. Andhra Pradesh/APTRANSCO	3.70	3.40	3.10	3.10	3.46	3.10	2.95	2.17	1.98
APGENCO	NA	NA	NA	NA	NA	NA	NA	0.55	0.56
2. Assam	14.60	13.20	12.80	11.60	10.47	10.77	7.41	10.28	9.13
3. Bihar	7.60	6.60	6.20	5.90	5.50	5.01	4.11	3.64	3.39
4. Delhi(DVB)	3.30	NA	NA	4.10	3.77	3.10	3.03	2.86	2.34
5. Gujarat	2.50	2.30	2.20	1.90	1.82	1.82	1.70	1.58	1.55
6. Haryana	5.20	5.80	5.90	5.50	5.30	5.42	4.64	4.07	3.58
HPGC	NA	NA	NA	NA	NA	NA	1.49	1.53	1.29
7. Himachal Pradesh	6.80	7.50	5.60	5.10	5.22	5.17	4.94	5.23	5.09
8. Jammu & Kashmir	10.80	10.30	10.10	10.60	9.30	7.18	7.13	7.41	7.01
9. Karnataka	4.10	3.80	3.00	2.80	2.87	2.39	2.63	2.34	2.31
KPCL					8.61	6.65	6.48	4.46	3.92
10. Kerala	4.10	4.10	3.60	3.60	3.83	3.39	2.89	2.54	2.14
11. Madhya Pradesh	4.90	4.50	4.00	3.80	3.72	3.58	3.31	3.22	2.95
12. Maharashtra	3.50	3.20	3.00	2.70	2.60	2.53	2.42	2.23	2.12
13. Meghalaya	10.80	7.80	11.60	8.50	9.36	7.92	8.26	7.72	8.01
14. Orissa (GRIDCO)	6.10	5.30	6.30	5.90	6.17	5.76	5.41	0.78	0.71
OHPC	NA	NA	NA	NA	1.69	1.91	1.91	2.11	1.41
OPGC	NA	NA	NA	NA	0.00	0.00	0.00	0.00	0.00
15. Punjab	5.00	4.70	4.50	4.40	4.14	4.27	3.98	3.86	3.66
16. Rajasthan	5.30	5.00	5.00	4.20	3.99	3.67	3.67	3.47	3.23
17. Tamil Nadu	5.00	4.60	3.90	3.60	3.55	3.58	3.36	3.14	3.02
18. Uttar Pradesh	4.40	4.10	3.80	3.50	3.50	3.42	3.11	3.01	2.89
19. West Bengal	6.70	5.80	5.20	4.50	3.95	3.94	3.84	3.83	3.52
WBPDCL					0.38	0.42	0.38	0.39	0.32
Average :(I)	4.50	4.30	3.90	3.60	3.46	3.32	3.10	2.60	2.44
II. EDs									
1. Arunachal Pradesh	71.40	60.50	54.00	53.30	41.31	38.63	59.22	51.26	45.77
2. Goa	6.00	5.10	5.00	4.80	4.57	3.74	3.84	3.98	3.51
3. Manipur	28.90	26.40	27.00	23.30	20.10	17.87	31.90	22.29	17.23
4. Mizoram	17.20	10.70	13.00	11.10	9.06	13.47	10.98	9.84	8.59
5. Nagaland	38.40	36.10	34.40	31.10	28.92	27.92	30.60	32.59	31.34
6. Pondicherry	2.20	2.30	2.10	2.10	2.10	1.89	1.74	1.48	1.34
7. Sikkim	24.30	22.00	19.60	16.30	15.68	13.30	12.16	11.62	15.79
8. Tripura	30.40	28.20	25.00	22.50	18.77	18.07	13.11	13.18	12.10
Average :(II)	13.00	11.80	11.20	10.60	9.76	9.02	9.35	8.59	7.75
All India Average :	4.60	4.30	4.00	3.70	3.52	3.38	3.16	2.66	2.49

NUMBER OF EMPLOYEES PER THOUSAND CONSUMERS

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	Actual	Actual	Actual	Actual	(Provis)	(RE)	(AP)
I. SEBs									
1. Andhra Pradesh	9.00	9.00	8.60	8.13	7.68	7.40	7.11	5.72	5.72
2. Assam	38.80	34.70	32.70	30.70	28.92	26.60	24.65	22.94	21.40
3. Bihar	26.00	23.60	23.10	21.80	19.24	18.77	18.22	16.11	15.74
4. Delhi(DVB)	14.20	12.40	12.20	12.60	11.79	10.83	10.31	9.76	9.57
5. Gujarat	8.30	8.20	8.10	8.00	7.91	7.63	7.40	7.40	7.40
6. Haryana	15.80	16.20	15.70	15.20	13.39	14.18	12.58	8.96	8.58
7. Himachal Pradesh	11.00	11.50	11.00	11.40	11.53	11.66	11.11	12.06	11.90
8. Jammu & Kashmir	26.10	25.80	26.10	27.30	26.77	25.90	26.04	26.60	28.33
9. Karnataka	7.00	8.20	7.00	6.30	5.86	5.38	5.11	5.11	5.11
10. Kerala	6.10	6.20	5.70	5.70	5.47	4.99	4.68	5.05	4.20
11. Madhya Pradesh	13.80	13.50	12.70	12.50	11.85	11.54	11.06	11.06	11.06
12. Maharashtra	12.00	11.40	11.00	10.20	9.71	9.27	8.96	8.96	8.96
13. Meghalaya	51.10	44.40	44.10	43.20	39.32	39.66	34.74	32.89	31.37
14. Orissa (GRIDCO)	30.00	27.60	24.60	24.20	23.49	23.38	21.77	5.51	5.47
15. Punjab	17.90	17.20	16.90	16.10	15.76	16.81	16.90	16.90	16.90
16. Rajasthan	16.10	14.70	14.00	13.00	12.17	11.62	11.62	11.36	11.07
17. Tamil Nadu	10.40	10.20	9.20	8.70	8.25	8.24	7.55	7.09	6.67
18. Uttar Pradesh	18.70	17.50	16.60	15.70	14.65	13.82	11.56	10.81	10.12
19. West Bengal	22.30	20.90	19.60	17.10	15.87	14.67	13.17	11.98	10.72
Average :(I)	13.10	12.70	12.00	11.40	10.75	10.40	9.79	9.14	8.85
II. EDs									
1. Arunachal Pradesh	50.00	52.90	45.00	50.00	48.24	43.00	56.19	49.09	46.96
2. Goa	12.70	12.30	11.00	10.90	11.50	10.29	10.46	10.69	10.53
3. Manipur	52.00	47.50	45.00	44.30	42.67	41.18	39.48	28.70	24.96
4. Mizoram	21.00	18.80	17.00	16.10	15.14	13.63	12.66	12.51	12.23
5. Nagaland	40.80	38.10	36.00	34.30	34.83	32.01	31.08	34.29	32.78
6. Pondicherry	11.00	10.60	11.10	10.40	9.95	9.47	9.28	8.87	8.50
7. Sikkim	41.00	30.80	32.40	32.90	27.78	24.28	23.36	22.47	28.57
8. Tripura	46.00	41.90	40.00	38.70	36.89	38.21	37.00	31.91	28.84
Average :(II)	28.40	26.50	25.20	24.40	23.84	22.76	23.49	21.72	20.76
All India Average :	13.30	12.90	12.20	11.50	10.92	10.57	9.97	9.31	9.02

AVERAGE TARIFF FOR SALE OF ELECTRICITY
(1974-75 to 1999-2000)

SEBs	(Paise/Kwh)					
	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1. Andhra Pradesh	26.31	30.06	30.03	30.00	30.67	34.56
2. Assam		25.37	34.70	34.46	37.79	
3. Bihar	23.53	26.09	30.09	31.51	34.79	40.01
4. Gujarat	22.10	23.65	27.54	28.54	32.14	36.24
5. Haryana	18.87	19.35	19.83	22.68	23.83	24.46
6. Him. Pradesh	15.46	21.65	22.11	22.58	25.55	28.21
7. Karnataka	13.61	14.57	16.52	20.10	23.43	25.16
8. Kerala	12.66	13.30	15.86	15.32	19.46	21.68
9. Madhya Pradesh	18.76	21.36	23.71	24.92	29.45	36.38
10. Maharashtra	16.91	19.91	21.64	24.09	26.82	25.66
11. Meghalaya		12.58	13.29	17.73	25.39	22.22
12. Orissa	10.73	14.10	14.86	14.93	20.35	24.43
13. Punjab	14.69	15.77	19.72	18.58	19.91	21.30
14. Rajasthan	20.91	21.07	22.88	26.85	26.81	27.08
15. Tamil Nadu	22.11	25.01	28.03	26.44	27.31	31.15
16. Uttar Pradesh	21.60	26.08	25.49	25.30	27.61	32.65
17. West Bengal	16.16	24.63	24.78	25.39	29.03	33.12
Average	18.79	21.43	23.46	24.30	26.77	29.51

(contd.)

AVERAGE TARIFF FOR SALE OF ELECTRICITY
(1974-75 to 1999-2000)

(Paise/Kwh)

SEBs	1980-81	1981-82	1982-83	1983-84	1984-85
1. Andhra Pradesh	37.30	42.22	44.00	42.00	50.86
2. Assam	38.58	54.84	54.75	56.04	59.34
3. Bihar	43.21	52.72	60.09	65.74	69.69
4. Gujarat	40.10	49.85	61.08	68.27	73.99
5. Haryana	29.52	32.76	37.46	44.50	45.45
6. Himachal Pradesh	29.98	33.75	36.77	37.31	40.76
7. Karnataka	28.22	32.96	34.60	38.90	46.03
8. Kerala	24.40	25.25	31.21	39.99	34.95
9. Madhya Pradesh	40.17	49.05	54.41	58.21	59.51
10. Maharashtra	28.41	36.99	45.17	49.93	51.01
11. Meghalaya	22.64	23.68	37.60	39.53	41.11
12. Orissa	31.99	35.17	40.07	44.59	41.22
13. Punjab	23.29	28.43	31.71	34.25	37.18
14. Rajasthan	28.01	31.98	43.17	48.31	47.83
15. Tamil Nadu	30.42	30.18	37.89	44.72	50.74
16. Uttar Pradesh	35.38	40.39	44.33	51.49	54.54
17. West Bengal	41.34	49.66	56.93	64.83	66.04
Average	32.30	37.96	44.33	49.85	52.46

(contd.)

Annexure 4.21(c)

AVERAGE TARIFF FOR SALE OF ELECTRICITY
(1974-75 to 1999-2000)

SEBs	(Paise/Kwh)				
	1985-86	1986-87	1987-88	1988-89	1989-90
1. Andhra Pradesh	49.96	48.30	59.30	61.40	70.00
2. Assam	52.02	52.07	88.96	87.87	91.07
3. Bihar	68.61	76.28	80.08	88.48	95.75
4. Delhi(DVB)	72.50	77.00	79.90	83.20	90.30
5. Gujarat	70.04	78.14	76.14	76.41	81.13
6. Haryana	41.70	43.90	45.10	60.00	61.60
7. Himachal Pradesh	45.56	49.07	57.40	57.18	59.23
8. Jammu & Kashmir	30.44	27.74	27.36	37.32	40.23
9. Karnataka	49.47	57.28	67.92	68.79	69.95
10. Kerala	35.29	48.25	55.66	51.77	56.27
11. Madhya Pradesh	62.31	67.90	70.53	77.59	84.97
12. Maharashtra	59.91	72.80	76.93	78.84	87.47
13. Meghalaya	45.00	46.30	49.00	50.00	50.10
14. Orissa	50.09	55.53	56.20	63.05	70.86
15. Punjab	37.82	41.81	43.89	43.03	49.76
16. Rajasthan	54.94	61.75	63.86	71.63	77.98
17. Tamil Nadu	57.11	58.76	63.77	61.48	71.08
18. Uttar Pradesh	52.50	60.15	63.32	66.18	71.61
19. West Bengal	74.08	81.54	84.56	96.23	100.77
Average :	55.56	61.26	66.19	69.43	75.63

(contd.)

**AVERAGE TARIFF FOR SALE OF ELECTRICITY
1974-75 to 1999-2000**

SEBs	(Paise/Kwh)					
	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
1. Andhra Pradesh	74.50	83.30	94.30	98.60	92.90	97.10
2. Assam	94.80	92.10	121.00	121.30	121.50	203.31
3. Bihar	88.60	97.80	118.40	147.40	155.00	178.76
4. Delhi(DVB)	99.10	124.70	134.00	NA	NA	232.70
5. Gujarat	78.00	93.00	100.30	121.00	128.00	132.00
6. Haryana	66.60	66.30	72.50	83.30	110.80	132.80
7. Himachal Pradesh	79.10	86.00	101.10	106.80	116.30	121.40
8. Jammu & Kashmir	35.90	35.90	35.30	35.10	36.70	35.60
9. Karnataka	81.30	82.40	93.40	106.80	105.10	114.40
10. Kerala	52.60	60.00	74.00	82.10	86.70	92.80
11. Madhya Pradesh	84.90	94.90	118.90	118.90	129.60	139.40
12. Maharashtra	103.10	107.80	136.90	150.50	161.10	169.00
13. Meghalaya	59.20	64.60	89.50	91.40	98.90	107.20
14. Orissa	67.90	65.10	77.20	95.10	149.80	175.36
15. Punjab	54.90	59.90	70.30	89.30	108.30	124.90
16. Rajasthan	92.90	93.10	105.10	115.30	133.30	142.30
17. Tamil Nadu	86.50	96.10	107.10	128.30	150.20	165.90
18. Uttar Pradesh	73.10	79.70	108.40	111.80	122.40	140.80
19. West Bengal	104.20	111.90	115.70	135.40	143.00	147.90
Average :	81.80	89.10	105.40	116.70	128.00	139.00

AVERAGE TARIFF FOR SALE OF ELECTRICITY

SEBs	(Paise/Kwh)				
	1996-97 Actual	1997-98 Actual	1998-99 Provisional	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	156.00	166.65	165.54	177.00	182.00
2. Assam	205.61	215.81	245.72	312.09	353.16
3. Bihar	185.20	200.80	200.14	200.14	200.14
4. Delhi(DVB)	248.56	323.97	264.33	283.78	320.00
5. Gujarat	163.00	184.00	190.00	206.00	225.00
6. Haryana	155.28	187.36	199.55	214.74	214.91
7. Himachal Pradesh	143.45	162.32	173.82	192.06	203.04
8. Jammu & Kashmir	34.02	34.35	66.67	156.36	194.16
9. Karnataka	140.55	152.20	192.20	204.89	252.88
10. Kerala	95.61	124.60	130.83	187.50	236.66
11. Madhya Pradesh	176.48	170.36	156.34	159.94	166.74
12. Maharashtra	199.03	208.81	215.61	229.73	231.18
13. Meghalaya	127.74	129.14	129.16	131.40	174.18
14. Orissa (GRIDCO)	235.02	259.04	255.59	138.73	157.87
15. Punjab	136.07	147.79	157.80	171.59	176.42
16. Rajasthan	165.53	187.89	187.89	194.38	195.79
17. Tamil Nadu	172.88	194.63	198.51	209.10	233.49
18. Uttar Pradesh	142.98	171.56	180.61	182.02	183.35
19. West Bengal	151.60	182.02	183.81	223.36	240.72
Average : (I)	165.74	180.85	185.75	199.13	212.00
II.EDs					
1. Arunachal Pradesh	200.00	150.00	150.00	150.00	200.00
2. Goa	171.37	187.10	243.44	279.96	351.26
3. Manipur	83.40	83.60	126.00	163.00	163.00
4. Mizoram	101.00	96.00	97.00	96.00	167.00
5. Nagaland	191.02	191.02	189.87	189.87	189.87
6. Pondicherry	139.07	144.55	156.75	166.95	166.95
7. Sikkim	72.98	75.00	80.00	100.00	115.00
8. Tripura	55.00	48.00	50.00	96.30	97.00
Average :(II)	126.10	132.27	159.89	186.47	214.17
All- India Average :	165.33	180.33	185.48	198.99	212.02

CONSUMER CATEGORYWISE AVERAGE TARIFF, 1996-97

(Paise/Kwh)

SEB	Domes- tic	Commer- cial	Agri./ irrig.	Indus- trial	Rly. tractn.	Outside State	Overall average
1. Andhra Pradesh	142.50	327.66	13.35	309.24	329.23	87.24	156.00
2. Assam	115.69	311.13	181.44	209.13	0.00	0.00	205.61
3. Bihar	109.25	211.37	14.02	246.77	283.51	177.62	185.20
4. Delhi(DVB)	NA	NA	NA	NA	NA	NA	248.56
5. Gujarat	149.00	319.00	20.00	287.87	316.00	0.00	163.00
6. Haryana	169.39	300.45	52.41	319.87	320.19	45.88	155.28
7. Himachal Pradesh	60.00	200.00	50.00	161.23	-	156.98	143.45
8. Jammu & Kashmir	28.00	50.00	10.00	40.00	-	-	34.02
9. Karnataka	132.00	475.46	5.73	329.88	319.64	-	140.55
10. Kerala	59.77	205.02	26.99	126.79	0.00	-	95.61
11. Madhya Pradesh	72.15	330.76	6.82	363.00	510.82	103.39	176.48
12. Maharashtra	129.20	343.65	22.55	330.38	307.13	222.97	199.03
13. Meghalaya	79.61	140.22	49.65	130.47	-	163.50	127.74
14. Orissa (GRIDCO)	113.88	247.35	70.94	302.97	306.30	-	235.02
15. Punjab	135.03	250.60	28.46	219.22	-	155.79	136.07
16. Rajasthan	122.79	264.41	31.22	271.56	314.40	169.78	165.53
17. Tamil Nadu	128.24	318.42	1.52	263.42	270.40	108.22	172.88
18. Uttar Pradesh	99.19	264.56	42.48	275.95	354.59	14.50	142.98
19. West Bengal	81.83	174.57	17.39	237.07	278.46	180.79	151.60
Average :	106.24	240.30	21.20	276.89	346.82	151.39	165.74
II EDs							
1. Arunachal Pradesh	NA	NA	NA	NA	NA	-	200.00
2. Goa	80.70	186.90	68.20	208.07	0.00	-	171.37
3. Manipur	70.00	140.00	70.00	70.00	0.00	-	83.40
4. Mizoram	93.00	107.00	0.00	100.00	0.00	-	101.00
5. Nagaland	160.00	280.00	0.00	225.00	0.00	-	191.02
6. Pondicherry	84.02	210.72	7.52	168.69	0.00	-	139.07
7. Sikkim	76.00	120.00	0.00	100.00	0.00	-	72.98
8. Tripura	70.00	105.00	60.00	105.00	0.00	-	55.00
Average of EDs	77.84	154.16	23.71	179.85	0.00	-	126.10
All India Average	105.73	239.07	21.20	275.50	346.82	151.37	165.33

CONSUMER CATEGORYWISE AVERAGE TARIFF, 1997-98

(Paise/Kwh)

SEB	Domes- tic	Commer- cial	Agri./ irrig.	Indus- trial	Rly. tractn.	Outside State	Overall average
1. Andhra Pradesh	165.58	369.04	16.12	340.00	380.87	36.71	166.65
2. Assam	117.87	320.38	476.70	192.56	0.00	0.00	215.81
3. Bihar	110.39	225.43	12.15	275.99	330.01	172.49	200.80
4. Delhi(DVB)	243.40	465.78	372.36	492.12	456.93	67.08	323.97
5. Gujarat	164.00	330.00	18.00	338.70	405.00	0.00	184.00
6. Haryana	203.95	337.82	61.08	372.20	372.19	120.00	187.36
7. Himachal Pradesh	60.00	220.00	50.00	198.00	-	150.67	162.32
8. Jammu & Kashmir	31.50	57.90	12.50	46.00	-	-	34.35
9. Karnataka	166.00	489.12	11.55	415.05	331.15	-	152.20
10. Kerala	77.99	279.88	54.63	163.20	102.00	-	124.60
11. Madhya Pradesh	74.48	362.37	5.30	377.48	532.28	151.85	170.36
12. Maharashtra	151.80	430.33	21.46	354.44	338.83	200.98	208.81
13. Meghalaya	83.22	153.82	49.30	158.17	-	143.84	129.14
14. Orissa (GRIDCO)	132.30	330.78	84.95	322.27	373.69	-	259.04
15. Punjab	148.50	276.33	Free supply	241.75	-	197.20	147.79
16. Rajasthan	125.71	296.17	34.58	323.60	320.13	208.99	187.89
17. Tamil Nadu	157.26	331.05	1.60	296.16	300.28	109.01	194.63
18. Uttar Pradesh	104.95	303.61	49.65	383.45	414.53	15.98	171.56
19. West Bengal	106.80	214.00	23.27	280.52	336.18	320.34	182.02
Average :	137.23	295.42	20.22	314.63	382.17	138.53	180.85
II EDs							
1. Arunachal Pradesh	150.00	150.00	0.00	150.00	0.00	0.00	150.00
2. Goa	93.65	234.94	55.26	226.28	0.00	118.51	187.10
3. Manipur	70.00	140.00	70.00	70.00	0.00	0.00	83.60
4. Mizoram	93.00	110.00	0.00	105.00	0.00	0.00	96.00
5. Nagaland	160.00	280.00	0.00	225.00	0.00	0.00	191.02
6. Pondicherry	85.71	209.91	7.52	175.85	0.00	0.00	144.55
7. Sikkim	77.00	122.00	0.00	106.00	0.00	0.00	75.00
8. Tripura	70.00	105.00	60.00	105.00	0.00	0.00	48.00
Average of EDs	78.10	177.24	21.24	189.86	0.00	-	132.27
All India Average	136.18	293.59	20.22	312.73	382.17	138.14	180.33

CONSUMER CATEGORYWISE AVERAGE TARIFF, 1998-99

(Paise/Kwh)

SEB	Domes- tic	Commer- cial	Agri./ irrig.	Indus- trial	Rly. tractn.	Outside State	Overall average
1. Andhra Pradesh	161.38	379.62	15.35	354.73	390.56	29.73	165.54
2. Assam	118.19	339.94	183.73	317.52	0.00	0.00	245.72
3. Bihar	109.35	223.20	12.23	275.33	330.00	190.59	200.14
4. Delhi(DVB)	149.83	380.22	50.00	384.56	NA	69.23	264.33
5. Gujarat	188.00	360.00	17.00	367.70	439.00	160.00	190.00
6. Haryana	240.06	380.00	50.00	397.92	413.21	113.13	199.55
7. Himachal Pradesh	64.00	220.00	50.00	218.95	0.00	145.82	173.82
8. Jammu & Kashmir	48.00	86.00	50.00	70.00	0.00	0.00	66.67
9. Karnataka	189.00	543.44	23.57	425.00	363.57	0.00	192.20
10. Kerala	77.99	299.47	59.55	174.60	111.18	0.00	130.83
11. Madhya Pradesh	76.16	377.25	4.73	382.86	530.27	265.40	156.34
12. Maharashtra	164.70	459.00	30.00	396.61	390.00	230.00	215.61
13. Meghalaya	78.05	130.01	40.00	110.80	0.00	173.04	129.16
14. Orissa (GRIDCO)	143.36	322.12	93.26	292.82	375.83	0.00	255.59
15. Punjab	178.64	320.01	free supply	268.42	0.00	204.86	157.80
16. Rajasthan	125.71	296.17	34.58	323.60	320.13	208.99	187.89
17. Tamil Nadu	175.38	341.87	1.12	314.17	316.03	111.66	198.51
18. Uttar Pradesh	112.81	313.25	49.50	422.76	456.26	19.14	180.61
19. West Bengal	107.76	178.44	26.36	276.54	336.79	322.94	183.81
Average :	140.86	324.32	20.59	322.01	405.94	164.84	185.75
II EDs							
1. Arunachal Pradesh	150.00	150.00	0.00	150.00	0.00	0.00	150.00
2. Goa	114.55	314.34	141.10	308.02	0.00	0.00	243.44
3. Manipur	123.00	197.00	99.70	71.20	0.00	148.00	126.00
4. Mizoram	92.00	100.00	0.00	96.00	0.00	0.00	97.00
5. Nagaland	160.00	280.00	0.00	225.00	0.00	0.00	189.87
6. Pondicherry	88.56	218.19	7.51	187.46	0.00	0.00	156.75
7. Sikkim	80.00	127.00	0.00	116.00	0.00	0.00	80.00
8. Tripura	70.00	105.00	60.00	105.00	0.00	87.30	50.00
Average of EDs	93.42	206.39	31.67	231.59	0.00	118.51	159.89
All India Average	140.13	322.44	20.62	320.53	405.94	163.64	185.48

CONSUMER CATEGORYWISE AVERAGE TARIFF, 1999-2000 (RE)

(Paise/Kwh)

SEB	Domes- tic	Commer- cial	Agri./ irrig.	Indus- trial	Rly. tractn.	Outside State	Overall average
1. Andhra Pradesh	174.00	426.00	15.00	397.08	420.00	0.00	177.00
2. Assam	145.55	421.24	232.71	366.43	0.00	0.00	312.09
3. Bihar	109.35	223.20	12.23	275.33	330.00	190.59	200.14
4. Delhi(DVB)	149.25	403.58	50.00	403.33	NA	0.00	283.78
5. Gujarat	215.00	395.00	17.00	398.70	475.00	0.00	206.00
6. Haryana	280.00	430.00	29.45	445.06	-	-	214.74
7. Himachal Pradesh	72.90	224.00	50.00	222.58	0.00	212.00	192.06
8. Jammu & Kashmir	85.00	160.00	220.00	135.00	0.00	0.00	156.36
9. Karnataka	212.00	647.00	21.23	432.21	400.00	0.00	204.89
10. Kerala	104.00	458.30	59.55	278.23	151.00	0.00	187.50
11. Madhya Pradesh	120.39	410.37	11.07	408.16	530.27	265.40	159.94
12. Maharashtra	174.50	414.26	24.61	368.00	368.00	225.00	229.73
13. Meghalaya	102.95	114.17	40.00	154.71	0.00	136.42	131.40
14. Orissa (GRIDCO)	NA	NA	NA	NA	NA	0.00	138.73
15. Punjab	189.74	338.09	Free supply	282.78	0.00	205.00	171.59
16. Rajasthan	137.00	307.00	36.52	318.91	328.00	221.55	194.38
17. Tamil Nadu	176.54	358.75	1.12	341.86	332.12	118.89	209.10
18. Uttar Pradesh	129.53	313.25	48.95	418.42	428.70	19.14	182.02
19. West Bengal	152.31	222.91	50.40	319.99	369.00	343.92	223.36
Average :	158.66	356.60	21.02	346.08	414.72	182.81	199.13
II EDs							
1. Arunachal Pradesh	150.00	150.00	0.00	150.00	0.00	0.00	150.00
2. Goa	128.49	352.57	158.48	345.60	0.00	153.81	279.96
3. Manipur	164.85	210.00	129.70	126.70	0.00	0.00	163.00
4. Mizoram	91.00	103.00	0.00	98.00	0.00	0.00	96.00
5. Nagaland	160.00	280.00	0.00	225.00	0.00	0.00	189.87
6. Pondicherry	93.98	238.35	7.51	199.10	0.00	0.00	166.95
7. Sikkim	87.10	138.00	0.00	122.30	0.00	0.00	100.00
8. Tripura	95.00	130.00	75.00	120.00	0.00	102.85	96.30
Average of EDs	109.26	240.96	50.11	254.57	0.00	125.04	186.47
All India Average	157.81	354.85	21.09	344.52	414.72	181.57	198.99

CONSUMER CATEGORYWISE AVERAGE TARIFF, 2000-01 (AP)

(Paise/Kwh)

SEB	Domes- tic	Commer- cial	Agri./ irrig.	Indus- trial	Rly. tractn.	Outside State	Overall average
1. Andhra Pradesh	174.00	426.00	14.00	399.19	420.00	0.00	182.00
2. Assam	146.47	416.56	233.24	361.40	0.00	0.00	353.16
3. Bihar	109.35	223.20	12.23	275.39	330.00	190.59	200.14
4. Delhi(DVB)	273.91	401.48	276.00	367.37	NA	0.00	320.00
5. Gujarat	246.00	430.00	17.00	434.72	510.00	0.00	225.00
6. Haryana	280.00	430.00	29.47	445.11	-	-	214.91
7. Himachal Pradesh	92.48	234.36	50.00	232.54	0.00	225.00	203.04
8. Jammu & Kashmir	125.00	230.00	250.00	200.00	0.00	0.00	194.16
9. Karnataka	249.00	680.00	108.66	438.10	481.00	0.00	252.88
10. Kerala	104.00	458.30	59.55	278.23	151.00	0.00	236.66
11. Madhya Pradesh	120.39	410.37	11.07	410.57	530.27	265.40	166.74
12. Maharashtra	178.00	417.76	24.61	202.23	371.50	250.00	231.18
13. Meghalaya	130.75	205.91	52.00	202.23	0.00	169.09	174.18
14. Orissa (GRIDCO)	NA	NA	NA	NA	NA	0.00	157.87
15. Punjab	190.16	338.51	Free supply	283.19	0.00	205.00	176.42
16. Rajasthan	138.00	310.00	34.85	321.89	331.00	221.90	195.79
17. Tamil Nadu	197.72	397.61	1.20	385.23	379.46	129.80	233.49
18. Uttar Pradesh	129.53	313.25	49.97	423.36	421.00	19.14	183.35
19. West Bengal	162.57	245.21	53.80	346.97	400.90	374.33	240.72
Average :	174.16	341.20	28.42	360.23	420.76	194.79	212.00
II EDs							
1. Arunachal Pradesh	200.00	200.00	0.00	200.00	0.00	0.00	200.00
2. Goa	160.61	439.40	198.10	385.00	0.00	191.69	351.26
3. Manipur	167.97	210.00	125.40	125.27	0.00	0.00	163.00
4. Mizoram	115.00	176.00	0.00	217.00	0.00	0.00	167.00
5. Nagaland	160.00	280.00	0.00	225.00	0.00	0.00	189.87
6. Pondicherry	93.98	238.35	7.51	252.20	0.00	0.00	166.95
7. Sikkim	100.00	225.00	0.00	130.00	0.00	0.00	115.00
8. Tripura	95.00	130.00	75.00	120.00	0.00	107.85	97.00
Average of EDs	129.35	286.01	52.61	293.87	0.00	127.62	214.17
All India Average	173.40	340.43	28.48	359.04	420.76	193.76	212.02

AVERAGE TARIFF FOR AGRICULTURE

	(Paise/Kwh)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	8.60	6.40	5.30	2.80	13.35	16.12	15.35	15.00	14.00
2. Assam	179.00	93.30	88.00	158.90	181.44	476.70	183.73	232.71	233.24
3. Bihar	10.50	14.80	15.20	16.20	14.02	12.15	12.23	12.23	12.23
4. Delhi(DVB)	38.00	NA	NA	NA	NA	372.36	50.00	50.00	276.00
5. Gujarat	11.00	19.00	22.00	19.00	20.00	18.00	17.00	17.00	17.00
6. Haryana	25.50	29.00	45.50	51.90	52.41	61.08	50.00	29.45	29.47
7. Himachal Pradesh	33.00	33.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
8. Jammu & Kashmir	11.80	9.10	9.30	10.30	10.00	12.50	50.00	220.00	250.00
9. Karnataka	4.20	2.80	1.80	1.70	5.73	11.55	23.57	21.23	108.66
10. Kerala	25.10	29.40	23.90	23.70	26.99	54.63	59.55	59.55	59.55
11. Madhya Pradesh	24.50	19.70	3.70	4.20	6.82	5.30	4.73	11.07	11.07
12. Maharashtra	15.20	22.70	18.20	16.50	22.55	21.46	30.00	24.61	24.61
13. Meghalaya	42.70	50.00	53.30	47.00	49.65	49.30	40.00	40.00	52.00
14. Orissa (GRIDCO)	30.90	21.20	53.10	54.20	70.94	84.95	93.26	NA	NA
15. Punjab	10.80	19.50	34.50	38.50	28.46		Free supply		
16. Rajasthan	31.00	30.80	30.10	27.20	31.22	34.58	34.58	36.52	34.85
17. Tamil Nadu	0.00	0.00	0.00	0.00	1.52	1.60	1.12	1.12	1.20
18. Uttar Pradesh	31.60	31.90	43.10	49.50	42.48	49.65	49.50	48.95	49.97
19. West Bengal	19.20	25.30	19.90	21.80	17.39	23.27	26.36	50.40	53.80
Average :	16.10	17.90	19.40	19.00	21.20	20.22	20.59	21.02	28.42

AVERAGE TARIFF FOR INDUSTRY

SEBs	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	Actual	Actual	Actual	Actual	Provi.	(RE)	(AP)
1. Andhra Pradesh	177.50	214.70	221.80	236.00	309.24	340.00	354.73	397.08	399.19
2. Assam	99.10	132.80	129.70	195.30	209.13	192.56	317.52	366.43	361.40
3. Bihar	174.60	205.00	220.50	247.40	246.77	275.99	275.33	275.33	275.39
4. Delhi(DVB)	190.10	NA	NA	NA	NA	492.12	384.56	403.33	367.37
5. Gujarat	188.00	220.20	220.00	235.00	287.87	338.70	367.70	398.70	434.72
6. Haryana	171.00	195.70	222.30	266.60	319.87	372.20	397.92	445.06	445.11
7. Himachal Pradesh	97.00	105.00	125.00	135.00	161.23	198.00	218.95	222.58	232.54
8. Jammu & Kashmir	46.60	39.60	40.30	41.00	40.00	46.00	70.00	135.00	200.00
9. Karnataka	185.40	221.60	231.00	262.20	329.88	415.05	425.00	432.21	438.10
10. Kerala	82.50	92.80	101.10	104.20	126.79	163.20	174.60	278.23	278.23
11. Madhya Pradesh	183.90	211.00	238.00	268.30	363.00	377.48	382.86	408.16	410.57
12. Maharashtra	211.10	232.90	270.50	271.80	330.38	354.44	396.61	368.00	202.23
13. Meghalaya	106.10	144.00	146.90	130.00	130.47	158.17	110.80	154.71	202.23
14. Orissa	89.10	111.30	170.80	193.60	302.97	322.27	292.82	NA	NA
15. Punjab	125.80	153.50	165.10	187.10	219.22	241.75	268.42	282.78	283.19
16. Rajasthan	156.90	178.00	204.10	234.60	271.56	323.60	323.60	318.91	321.89
17. Tamil Nadu	167.20	202.40	245.10	270.50	263.42	296.16	314.17	341.86	385.23
18. Uttar Pradesh	210.90	225.20	240.80	272.10	275.95	383.45	422.76	418.42	423.36
19. West Bengal	125.90	149.50	183.00	209.30	237.07	280.52	276.54	319.99	346.97
Average :	171.50	198.20	219.90	245.50	276.89	314.63	322.01	346.08	360.23

SALES REVENUE AS A RATIO OF COST

SEBs	(%)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	94.20	90.50	72.10	62.20	73.07	69.53	57.44	59.95	51.45
2. Assam	47.40	49.70	53.90	57.10	60.95	47.21	56.99	61.03	65.20
3. Bihar	63.70	73.50	66.40	70.80	63.74	63.45	66.90	62.83	57.03
4. Delhi(DVB)	81.70	NA	NA	70.60	71.97	72.61	63.89	65.55	69.64
5. Gujarat	68.40	76.60	74.60	72.90	75.44	74.32	68.73	66.81	67.18
6. Haryana	54.00	50.40	61.50	63.60	64.50	63.86	63.59	62.59	59.70
7. Himachal Pradesh	88.50	74.80	91.90	98.80	91.83	89.93	82.61	86.88	86.12
8. Jammu & Kashmir	21.30	16.70	10.30	13.20	10.87	12.49	10.70	19.70	25.85
9. Karnataka	96.50	95.30	86.80	74.90	75.06	83.98	73.37	80.18	78.86
10. Kerala	84.70	83.50	79.60	69.00	59.28	63.57	72.99	76.78	85.76
11. Madhya Pradesh	84.00	80.70	77.50	79.50	81.64	73.60	62.39	61.32	61.22
12. Maharashtra	98.50	98.80	99.40	91.20	96.21	96.86	96.56	88.70	85.51
13. Meghalaya	81.30	93.60	71.20	72.70	78.64	71.79	58.54	57.16	65.13
14. Orissa	78.10	71.20	80.70	77.10	72.84	73.64	72.87	74.23	88.97
15. Punjab	57.60	61.80	66.70	69.70	73.16	68.09	67.19	69.43	71.38
16. Rajasthan	76.00	70.40	67.80	67.80	71.93	74.53	66.40	64.03	69.21
17. Tamil Nadu	86.00	88.70	98.80	97.10	93.44	93.52	86.62	82.62	84.71
18. Uttar Pradesh	70.60	66.00	69.00	70.70	64.32	67.73	67.47	63.19	62.45
19. West Bengal	71.50	78.40	73.70	78.50	72.07	73.17	61.20	70.15	70.24
Average :	82.20	78.30	78.30	76.10	76.81	75.95	70.87	70.35	69.95

COMMERCIAL PROFIT/LOSS
(with subsidy)

SEBs	(Rs.crore)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	-4	-23	-37	4	-88.52	-1375.64	-2624.88	-2675.15	-3855.38
2. Assam	-205	-197	-255	-261	-244.15	-439.05	-326.53	-357.52	-366.94
3. Bihar	-280	-190	-189	-211	-441.56	-494.90	-513.51	-679.75	-1080.96
4. Delhi(DVB)	-207	NA	NA	-578	-626.43	-760.24	-1208.62	-1209.33	-1186.43
5. Gujarat	100	92	106	108	111.00	119.00	126.00	-1367.00	-1446.00
6. Haryana	-368	-447	-13	46	6.69	-32.27	-474.99	-532.33	-819.51
7. Himachal Pradesh	2	-51	19	11	-19.31	-33.02	-86.67	-67.42	-83.62
8. Jammu & Kashmir	-225	-293	-347	-363	-507.17	-660.60	-834.32	-812.78	-858.41
9. Karnataka	32	34	43	51	54.06	58.49	66.99	75.84	-216.30
10. Kerala	-65	-75	-120	-130	-176.46	-199.04	-205.24	-266.68	-286.70
11. Madhya Pradesh	-113	38	-80	-8	-163.45	-812.19	-1664.21	-1861.45	-2200.78
12. Maharashtra	162	189	276	222	166.47	294.85	513.44	-960.15	-358.12
13. Meghalaya	-2	4	-14	-12	-6.90	-17.14	-36.99	-42.26	-36.19
14. Orissa	26	30	25	27	-363.48	-386.41	-362.61	-328.80	-89.92
15. Punjab	-626	-693	-681	-644	-603.43	-943.29	-1313.84	-1304.06	-1308.94
16. Rajasthan	22	10	77	81	63.22	65.35	65.80	-1512.31	-1352.12
17. Tamil Nadu	92	226	348	339	329.64	273.64	-514.63	-977.24	-956.73
18. Uttar Pradesh	-808	-1202	85	381	-1821.29	-1853.11	-1961.98	-2543.64	-2784.04
19. West Bengal	-258	-158	-242	-240	-343.24	-402.38	-1039.98	-804.08	-933.16
Total :	-2725	-2706	-998	-1178	-4674.31	-7597.95	-12396.77	-18226.11	-20220.25

Commercial Losses for the Year 1996-97

SEBs	Total		Gross	Depreciation	Net	Total	
	Revenue	Expenditure	Operating Surplus		Operating Surplus	Interest Payable	Commercial Profit/Loss
1. Andhra Pradesh							
APSEB/APTRANSCO	4408.95	3205.97	1202.98	418.99	783.99	872.51	-88.52
2. Assam	417.14	373.84	43.30	60.98	-17.68	226.47	-244.15
3. Bihar	1550.32	1670.99	-120.67	167.26	-287.93	153.63	-441.56
4. Delhi (DVB)	1849.34	2278.54	-429.20	100.83	-530.03	96.40	-626.43
5. Gujarat	5648.00	4468.00	1180.00	444.00	736.00	625.00	111.00
6. Haryana							
HSEB/HVPN	2187.46	1759.90	427.56	146.42	281.14	274.45	6.69
7. Himachal Pradesh	369.67	288.03	81.64	15.06	66.58	85.89	-19.31
8. Jammu & Kashmir	62.00	445.18	-383.18	34.12	-417.30	89.87	-507.17
9. Karnataka SEB	2899.19	2399.08	500.11	202.64	297.47	243.41	54.06
10. Kerala	955.89	828.89	127.00	66.15	60.85	237.31	-176.46
11. Madhya Pradesh	4952.14	3827.31	1124.83	420.24	704.59	868.04	-163.45
12. Maharashtra	8999.25	7041.28	1957.97	933.37	1024.60	858.13	166.47
13. Meghalaya	66.83	47.43	19.40	6.30	13.10	20.00	-6.90
14. Orissa							
OSEB/GRIDCO	1209.68	1337.90	-128.22	132.96	-261.18	102.30	-363.48
15. Punjab	2725.00	2432.06	292.94	301.28	-8.34	595.09	-603.43
16. Rajasthan	3362.23	2658.97	703.26	230.07	473.19	409.97	63.22
17. Tamil Nadu	5077.00	4009.95	1067.05	315.12	751.93	422.29	329.64
18. Uttar Pradesh	4189.40	3785.56	403.84	736.67	-332.83	1488.46	-1821.29
19. West Bengal SEB	1637.93	1649.41	-11.48	108.39	-119.87	223.37	-343.24
Total of SEBs :	52567.42	44508.29	8059.13	4840.85	3218.28	7892.59	-4674.31

Commercial Losses for the Year 1997-98

SEBs	Total Revenue	Revenue Expenditure	Gross Operating Surplus	Depreciation	Net Operating Surplus	Total Interest Payable	Commercial Profit/Loss
1. Andhra Pradesh APSEB/APTRANSCO	4363.41	4309.45	53.96	434.72	-380.76	994.88	-1375.64
2. Assam	419.01	531.05	-112.04	77.82	-189.86	249.19	-439.05
3. Bihar	1824.00	1987.26	-163.26	177.29	-340.55	154.35	-494.90
4. Delhi (DVB)	2300.04	2827.58	-527.54	117.37	-644.91	115.33	-760.24
5. Gujarat	6751.00	5403.00	1348.00	515.00	833.00	714.00	119.00
6. Haryana HSEB/HVPN	2568.45	2166.00	402.45	147.63	254.82	287.09	-32.27
7. Himachal Pradesh	448.54	355.09	93.45	18.52	74.93	107.95	-33.02
8. Jammu & Kashmir	94.76	611.81	-517.05	38.52	-555.57	105.03	-660.60
9. Karnataka SEB	3212.90	2604.67	608.23	216.25	391.98	333.49	58.49
10. Kerala	1303.50	1137.94	165.56	75.82	89.74	288.78	-199.04
11. Madhya Pradesh	4884.55	4421.53	463.02	429.75	33.27	845.46	-812.19
12. Maharashtra	9757.68	7669.55	2088.13	963.14	1124.99	830.14	294.85
13. Meghalaya	81.99	61.77	20.22	13.32	6.90	24.04	-17.14
14. Orissa OSEB/GRIDCO	1456.99	1575.95	-118.96	141.66	-260.62	125.79	-386.41
15. Punjab	3141.50	3034.03	107.47	306.34	-198.87	744.42	-943.29
16. Rajasthan	4042.72	3243.38	799.34	268.44	530.90	465.55	65.35
17. Tamil Nadu	5881.11	4763.55	1117.56	378.73	738.83	465.19	273.64
18. Uttar Pradesh	5019.11	4443.93	575.18	758.26	-183.08	1670.03	-1853.11
19. West Bengal SEB	2069.42	2103.12	-33.70	121.36	-155.06	247.32	-402.38
Total of SEBs :	59620.68	53250.66	6370.02	5199.94	1170.08	8768.03	-7597.95

Commercial Losses for the Year 1998-99

SEBs	Total Revenue	Revenue Expenditure	Gross Operating Surplus	Depriciation	Net Operating Surplus	Total Interest Payable	Commercial Profit/Loss
1. Andhra Pradesh APSEB/APTRANSCO	4628.82	5378.62	-749.80	458.92	-1208.72	1416.16	-2624.88
2. Assam	464.98	496.07	-31.09	78.91	-110.00	216.53	-326.53
3. Bihar	2107.58	2290.17	-182.59	182.00	-364.59	148.92	-513.51
4. Delhi (DVB)	2536.23	3475.68	-939.45	131.54	-1070.99	137.63	-1208.62
5. Gujarat	8100.00	6702.00	1398.00	554.00	844.00	718.00	126.00
6. Haryana HSEB/HVPN	2439.48	2513.44	-73.96	150.25	-224.21	250.78	-474.99
7. Himachal Pradesh	499.48	441.17	58.31	21.50	36.81	123.48	-86.67
8. Jammu & Kashmir	100.38	769.47	-669.09	43.63	-712.72	121.60	-834.32
9. Karnataka SEB	3872.24	3188.11	684.13	242.93	441.20	374.21	66.99
10. Kerala	1431.89	1223.68	208.21	119.76	88.45	293.69	-205.24
11. Madhya Pradesh	5016.47	4947.28	69.19	418.14	-348.95	1315.26	-1664.21
12. Maharashtra	10861.01	8462.46	2398.55	1042.11	1356.44	843.00	513.44
13. Meghalaya	77.30	68.09	9.21	14.33	-5.12	31.87	-36.99
14. Orissa OSEB/GRIDCO	1548.28	1557.64	-9.36	174.60	-183.96	178.65	-362.61
15. Punjab	3606.00	3616.69	-10.69	326.04	-336.73	977.11	-1313.84
16. Rajasthan	4493.30	3626.16	867.14	287.08	580.06	514.26	65.80
17. Tamil Nadu	5870.36	5472.99	397.37	435.46	-38.09	476.54	-514.63
18. Uttar Pradesh	5701.36	5218.80	482.56	802.88	-320.32	1641.66	-1961.98
19. West Bengal SEB	1941.67	2516.75	-575.08	129.69	-704.77	335.21	-1039.98
Total of SEBs :	65296.83	61965.27	3331.56	5613.77	-2282.21	10114.56	-12396.77

Commercial Losses for the Year 1999-2000

SEBs	Total Revenue	Revenue Expenditure	Gross Operating Surplus	Depriciation	Net Operating Surplus	Total Interest Payable	Commercial Profit/Loss
1. Andhra Pradesh APSEB/APTRANSCO	5457.89	6751.90	-1294.01	292.23	-1586.24	1088.91	-2675.15
2. Assam	600.80	666.79	-65.99	85.83	-151.82	205.70	-357.52
3. Bihar	2281.70	2626.33	-344.63	200.00	-544.63	135.12	-679.75
4. Delhi (DVB)	2911.07	3801.66	-890.59	153.44	-1044.03	165.30	-1209.33
5. Gujarat	8141.00	8130.00	11.00	595.00	-584.00	783.00	-1367.00
6. Haryana HSEB/HVFN	2680.47	2771.10	-90.63	143.16	-233.79	298.54	-532.33
7. Himachal Pradesh	596.00	506.00	90.00	23.50	66.50	133.92	-67.42
8. Jammu & Kashmir	200.00	823.58	-623.58	46.63	-670.21	142.57	-812.78
9. Karnataka SEB	4651.43	3828.18	823.25	285.00	538.25	462.41	75.84
10. Kerala	2221.60	1782.41	439.19	160.24	278.95	545.63	-266.68
11. Madhya Pradesh	5278.57	5672.33	-393.76	442.93	-836.69	1024.76	-1861.45
12. Maharashtra	12180.32	10482.79	1697.53	1220.34	477.19	1437.34	-960.15
13. Meghalaya	81.96	77.25	4.71	15.05	-10.34	31.92	-42.26
14. Orissa OSEB/GRIDCO	1451.66	1435.66	16.00	79.40	-63.40	265.40	-328.80
15. Punjab	4024.10	3853.71	170.39	373.75	-203.36	1100.70	-1304.06
16. Rajasthan	3956.83	4410.16	-453.33	363.69	-817.02	695.29	-1512.31
17. Tamil Nadu	6542.80	6389.25	153.55	500.78	-347.23	630.01	-977.24
18. Uttar Pradesh	5940.38	5509.04	431.34	821.42	-390.08	2153.56	-2543.64
19. West Bengal SEB	2366.77	2673.21	-306.44	152.35	-458.79	345.29	-804.08
Total of SEBs :	71565.35	72191.35	-626.00	5954.74	-6580.74	11645.37	-18226.11

Commercial Losses for the Year 2000-01

SEBs	Total Revenue	Revenue Expenditure	Gross Operating Surplus	Depriciation	Net Operating Surplus	Total Interest Payable	Commercial Profit/Loss
1. Andhra Pradesh							
APSEB/APTRANSCO	6775.14	8814.08	-2038.94	380.80	-2419.74	1435.64	-3855.38
2. Assam	738.04	771.98	-33.94	90.04	-123.98	242.96	-366.94
3. Bihar	2426.20	3159.64	-733.44	220.00	-953.44	127.52	-1080.96
4. Delhi (DVB)	3527.88	4344.60	-816.72	186.54	-1003.26	183.17	-1186.43
5. Gujarat	9164.00	9025.00	139.00	684.00	-545.00	901.00	-1446.00
6. Haryana							
HSEB/HVPM	2993.04	3343.75	-350.71	161.11	-511.82	307.69	-819.51
7. Himachal Pradesh	668.00	562.00	106.00	26.70	79.30	162.92	-83.62
8. Jammu & Kashmir	300.00	952.75	-652.75	49.63	-702.38	156.03	-858.41
9. Karnataka SEB	5578.88	4951.08	627.80	326.00	301.80	518.10	-216.30
10. Kerala	3081.64	2566.01	515.63	199.62	316.01	602.71	-286.70
11. Madhya Pradesh	5935.64	6509.33	-573.69	518.42	-1092.11	1108.67	-2200.78
12. Maharashtra	14090.23	11418.11	2672.12	1294.43	1377.69	1735.81	-358.12
13. Meghalaya	100.79	88.28	12.51	15.80	-3.29	32.90	-36.19
14. Orissa							
OSEB/GRIDCO	1780.58	1464.32	316.26	87.90	228.36	318.28	-89.92
15. Punjab	4312.38	4018.97	293.41	443.20	-149.79	1159.15	-1308.94
16. Rajasthan	4554.23	4682.50	-128.27	406.42	-534.69	817.43	-1352.12
17. Tamil Nadu	7536.67	7203.43	333.24	575.90	-242.66	714.07	-956.73
18. Uttar Pradesh	6180.52	5845.34	335.18	879.24	-544.06	2239.98	-2784.04
19. West Bengal SEB	2718.72	3073.07	-354.35	170.77	-525.12	408.04	-933.16
Total of SEBs :	82462.58	82794.24	-331.66	6716.52	-7048.18	13172.07	-20220.25

**COMMERCIAL PROFIT/LOSS
(without subsidy)**

SEBs	(Rs.crore)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh APSEB/APTRANSCO	-4.30	-22.80	-981.40	-1255.20	-938.89	-1375.64	-2624.88	-2755.15	-4605.38
2. Assam	-205.40	-197.30	-255.30	-261.20	-244.15	-439.05	-326.53	-357.52	-366.94
3. Bihar	-279.60	-189.70	-188.90	-211.40	-441.56	-494.90	-513.51	-679.75	-1080.96
4. Delhi(DVB)	-207.30	-	0.00	-578.00	-626.43	-760.24	-1208.62	-1209.33	-1186.43
5. Gujarat	-519.00	-493.00	-550.00	-1003.00	-952.00	-1364.00	-1967.00	-2577.00	-2777.00
6. Haryana HSEB/HVPN	-403.60	-506.90	-467.90	-553.80	-635.03	-764.67	-838.99	-944.33	-1242.11
7. Himachal Pradesh	1.70	-50.60	19.40	10.60	-19.31	-33.02	-86.67	-67.42	-83.62
8. Jammu & Kashmir	-224.50	-293.20	-346.70	-363.20	-507.17	-660.60	-834.32	-812.78	-858.41
9. Karnataka	-19.40	-1.90	-164.20	-502.40	-651.76	-321.65	-791.60	-781.76	-1094.92
10. Kerala	-65.40	-75.00	-128.90	-183.20	-207.96	-199.04	-205.24	-266.68	-286.70
11. Madhya Pradesh	-492.90	-377.10	-594.20	-601.90	-463.88	-1057.63	-1946.65	-2173.45	-2543.78
12. Maharashtra	161.60	189.00	276.00	-408.20	-92.14	-10.77	158.34	-960.15	-358.12
13. Meghalaya	-8.40	-3.30	-20.50	-19.90	-15.40	-26.14	-45.99	-52.26	-46.69
14. Orissa OSEB/(GRIDCO)	-85.40	-196.10	-136.10	-230.70	-374.86	-391.72	-365.61	-332.80	-89.92
15. Punjab	-626.30	-693.20	-680.60	-643.70	-603.43	-943.29	-1313.84	-1304.06	-1308.94
16. Rajasthan	-259.50	-414.50	-412.20	-429.90	-497.54	-639.53	-1087.12	-1512.31	-1352.12
17. Tamil Nadu	-257.60	-301.60	-2.40	-76.70	-256.87	-296.42	-764.80	-1227.24	-1206.73
18. Uttar Pradesh	-807.50	-1201.50	-1152.00	-1136.20	-3378.29	-3692.01	-4119.53	-4154.87	-4531.12
19. West Bengal	-257.50	-231.20	-339.20	-321.80	-398.24	-492.38	-1089.04	-859.08	-993.16
Total :	-4560.30	-5059.90	-6125.20	-8769.60	-11304.91	-13962.70	-19971.60	-23027.94	-26013.05

E.Ds

1. Arunachal Pradesh	-32.97	-42.45	-50.31	-52.40	-52.01
2. Goa	22.16	22.87	35.71	-4.00	6.38
3. Manipur	-61.36	-32.83	-32.17	-68.98	-74.58
4. Mizoram	-30.71	-40.86	-37.91	-49.22	-39.92
5. Nagaland	-21.05	-20.60	-26.20	-28.76	-26.94
6. Pondicherry	-3.92	-7.28	-15.62	-12.11	-23.06
7. Sikkim	-7.30	-9.35	-13.43	-12.75	-11.71
8. Tripura	-62.94	-61.91	-53.44	-83.25	-84.80

Total of EDs -198.09 -192.40 -193.37 -311.47 -306.64

All States & UTs -4872.40 -7790.35 -12590.14 -18537.58 -20526.89

SUBSIDY FOR AGRICULTURAL CONSUMERS

(Rs.crore)

SEBs	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	725.90	925.40	1350.30	1747.70	1570.72	2087.22	2708.72	3124.21	3939.44
2. Assam	6.20	8.80	11.00	8.70	7.11	-0.49	9.40	16.32	19.87
3. Bihar	267.60	251.90	297.10	299.50	350.67	450.66	508.10	575.52	684.10
4. Delhi(DVB)	8.60	-	-	NA	NA	NA	NA	43.57	16.15
5. Gujarat	1055.40	1206.00	1266.20	1646.80	1887.21	2470.02	3172.22	3878.02	4396.54
6. Haryana	456.80	540.00	489.80	612.30	769.67	892.82	1065.43	1312.17	1561.74
7. Himachal Pradesh	1.00	1.50	0.90	0.70	1.06	1.22	1.72	2.16	2.53
8. Jammu & Kashmir	27.50	53.40	66.80	70.60	92.90	123.21	137.63	63.72	45.50
9. Karnataka	496.50	667.90	870.70	1109.20	1255.05	1530.02	1511.37	1942.85	1704.43
10. Kerala	0.00	16.40	23.00	35.70	44.22	48.16	49.20	82.69	116.09
11. Madhya Pradesh	421.10	756.20	1103.70	1416.40	1794.53	2184.75	2874.86	3066.58	3368.76
12. Maharashtra	1030.90	1130.90	1647.00	2249.80	2555.92	2986.01	3087.49	3867.28	4289.88
13. Meghalaya	0.00	0.10	0.10	0.20	0.16	0.19	0.05	0.05	0.05
14. Orissa	20.70	39.20	20.20	30.30	40.01	51.75	66.43	N.A.	N.A.
15. Punjab	687.10	797.30	780.90	828.50	1008.55	0.00	0.00	0.00	0.00
16. Rajasthan	347.50	468.40	622.60	807.60	963.24	1115.70	1261.45	1797.96	1726.51
17. Tamil Nadu	642.50	759.80	946.80	1133.30	1225.40	1502.46	1723.11	2038.68	2302.58
18. Uttar Pradesh	1035.40	1227.40	1275.10	1402.40	1762.05	1925.58	2178.13	2404.81	2527.34
19. West Bengal	104.20	115.00	168.80	206.50	256.74	337.40	330.13	324.31	381.94
Total :	7334.90	8965.60	10941.00	13606.00	15585.20	17706.67	20685.43	24540.89	27083.47

**SUBSIDY FOR AGRICULTURAL SALES
AFTER INTRODUCTION OF 50 PAISE/KWH**

SEBs	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	(Rs.crore)	
								1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	395.20	532.00	869.10	1209.60	1283.57	1770.91	2364.12	2734.38	3521.48
2. Assam	6.20	8.80	11.00	8.70	7.11	-0.49	9.40	16.32	19.87
3. Bihar	207.30	204.00	249.60	256.60	305.05	394.53	441.21	504.56	607.81
4. Delhi(DVB)	7.80	NA	NA	NA	NA	NA	NA	43.57	16.15
5. Gujarat	751.80	937.80	1029.20	1332.70	1585.11	2125.80	2768.93	3437.73	3941.14
6. Haryana	342.90	456.90	473.30	612.30	769.67	892.82	1065.43	1312.17	1561.74
7. Himachal Pradesh	0.80	1.30	0.90	0.70	1.06	1.22	1.72	2.16	2.53
8. Jammu & Kashmir	20.70	42.50	54.40	58.50	79.44	106.74	137.63	63.72	45.50
9. Karnataka	249.80	377.10	519.00	753.50	948.97	1179.47	1326.15	1704.29	2176.06
10. Kerala	0.00	11.40	16.00	27.20	36.64	49.74	49.20	82.69	116.09
11. Madhya Pradesh	329.30	590.30	791.10	1050.80	1424.41	1752.95	2345.52	2588.60	2866.87
12. Maharashtra	741.00	889.80	1282.90	1803.20	2175.27	2547.01	2768.13	3452.33	3851.60
13. Meghalaya	0.00	0.10	0.10	0.10	0.16	0.18	0.04	0.05	0.05
14. Orissa	14.90	29.10	20.60	30.30	40.01	51.75	66.43	N.A.	N.A.
15. Punjab	444.90	603.80	688.20	761.00	871.82	1011.46	1399.03	1380.08	1380.17
16. Rajasthan	285.90	400.70	547.80	708.60	874.28	1038.90	1184.66	1716.64	1639.21
17. Tamil Nadu	384.50	497.30	635.40	801.70	901.65	1150.35	1353.77	1643.19	1893.15
18. Uttar Pradesh	878.90	1065.90	1209.60	1397.50	1688.35	1922.27	2173.14	2394.25	2527.03
19. West Bengal	81.70	95.40	138.10	171.70	212.20	298.06	301.65	324.79	386.96
Total :	5143.40	6744.20	8536.30	10984.90	13204.75	16293.66	19756.15	23401.52	26553.43

SUBSIDY RECEIVED FROM STATE GOVERNMENT

(Rs.crore)

SEBs	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	0.0	0.1	944.1	1259.1	850.4	0.0	0.0	80.0	750.0
2. Assam	0.0	0.0	0.1	0.5	0.0	0.0	0.0	0.0	0.0
3. Bihar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. Delhi(DVB)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. Gujarat	619.0	585.0	656.0	1111.0	1063.0	1483.0	2093.0	1210.0	1331.0
6. Haryana	35.0	60.0	455.0	599.7	641.7	732.4	364.0	412.0	422.6
7. Himachal Pradesh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
8. Jammu & Kashmir	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9. Karnataka	51.6	35.8	207.2	553.6	705.8	380.1	858.6	857.6	878.6
10. Kerala	0.0	0.0	8.6	53.2	31.5	0.0	0.0	0.0	0.0
11. Madhya Pradesh	380.1	415.2	514.7	593.9	300.4	245.4	282.4	312.0	343.0
12. Maharashtra	0.0	0.0	0.0	629.9	258.6	305.6	355.1	0.0	0.0
13. Meghalaya	6.5	7.0	7.0	8.0	8.5	9.0	9.0	10.0	10.5
14. Orissa	1390.0	226.0	161.0	257.6	11.4	5.3	3.0	4.0	0.0
15. Punjab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16. Rajasthan	281.6	424.9	489.3	510.7	560.8	704.9	1152.9	0.0	0.0
17. Tamil Nadu	350.1	527.1	350.1	415.9	586.5	570.1	250.2	250.0	250.0
18. Uttar Pradesh	0.0	0.0	1237.0	1517.0	1557.0	1838.9	2157.6	1611.2	1747.1
19. West Bengal	68.1	73.2	97.1	81.7	55.0	90.0	49.1	55.0	60.0
Total:	3182.0	2354.3	5127.1	7592.0	6630.6	6364.8	7574.8	4801.8	5792.8

SUBSIDY FOR DOMESTIC CONSUMERS

(Rs.crore)

SEBs	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	40.40	63.60	118.70	159.30	271.11	336.07	643.07	711.26	1235.12
2. Assam	37.20	82.40	79.30	90.10	127.55	188.68	173.65	255.25	295.95
3. Bihar	40.00	56.30	89.20	118.90	158.30	181.15	199.64	233.38	289.72
4. Delhi(DVB)	297.40	-	-	-	-	-	-	1094.52	844.94
5. Gujarat	88.00	94.90	121.80	136.10	131.42	201.61	234.71	277.34	274.68
6. Haryana	95.60	137.20	113.20	123.10	127.82	162.89	148.13	134.79	193.41
7. Himachal Pradesh	13.70	25.90	23.20	19.90	35.40	50.29	69.40	79.04	85.10
8. Jammu & Kashmir	49.50	62.00	70.00	93.80	132.74	170.69	230.13	217.82	232.64
9. Karnataka	22.50	9.20	35.30	118.50	160.07	42.38	167.88	159.86	280.31
10. Kerala	60.50	83.40	114.70	204.00	345.60	439.79	450.84	687.95	1010.79
11. Madhya Pradesh	252.70	258.40	315.40	401.50	538.58	634.98	759.34	664.71	781.97
12. Maharashtra	151.60	193.30	190.20	326.70	380.33	340.67	346.94	575.79	669.30
13. Meghalaya	1.40	1.10	2.80	5.90	7.47	11.71	17.37	16.03	18.32
14. Orissa	80.40	122.40	92.10	143.50	282.39	341.65	358.99	N.A.	N.A.
15. Punjab	54.30	83.10	108.10	119.60	161.84	231.33	205.35	226.27	244.96
16. Rajasthan	183.30	127.50	163.40	220.70	242.63	323.72	395.01	524.31	563.34
17. Tamil Nadu	141.80	147.60	158.60	192.70	237.39	217.19	283.98	437.40	461.77
18. Uttar Pradesh	331.80	468.50	563.50	557.50	806.86	1079.00	1267.20	1418.97	1526.44
19. West Bengal	92.90	114.00	177.30	192.60	238.49	304.64	481.41	389.28	457.54
Total :	2034.90	2130.80	2536.80	3224.40	4386.01	5258.43	6433.03	8103.97	9466.32

Subsidy for Inter-State Sales

SEBs	Rs.(Crore)				
	1996-97	1997-98	1998-99	1999-2000	2000-01
1. Andhra Pradesh	11.19	29.63	25.02	0.00	0.00
2. Assam	13.45	2.43	0.00	0.00	0.00
3. Bihar	7.27	18.53	17.34	17.12	23.90
4. Delhi(DVB)	0.00	192.30	118.86	0.00	0.00
5. Gujarat	0.00	0.00	31.47	0.00	0.00
6. Haryana	3.20	15.78	19.86	0.00	0.00
7. Himachal Pradesh	-10.27	11.07	33.20	-5.85	-4.72
8. Jammu & Kashmir	0.00	0.00	0.00	0.00	0.00
9. Karnataka	0.00	0.00	0.00	0.00	0.00
10. Kerala	0.00	0.00	0.00	0.00	0.00
11. Madhya Pradesh	19.09	14.64	-2.61	-0.80	1.23
12. Maharashtra	-11.32	3.72	-7.12	21.75	18.50
13. Meghalaya	-0.66	8.42	8.01	15.31	10.84
14. Orissa	0.00	0.00	0.00	0.00	0.00
15. Punjab	14.54	19.06	42.17	54.80	54.82
16. Rajasthan	20.31	23.53	37.41	49.37	45.02
17. Tamil Nadu	15.90	20.12	24.09	29.39	33.11
18. Uttar Pradesh	93.29	112.73	132.73	143.62	146.56
19. West Bengal	6.71	-1.29	-0.37	-0.42	-0.54
Total :	238.75	457.13	553.63	436.62	487.32

Uncovered Subsidy for 1996-97

SEBs	Subsidy Agri.	Subsidy Domestic	Subsidy Interstate	Gross Subsidy	Subvention from the State	Net Subsidy	Surplus from Other Users	Uncovered Subsidy
1. Andhra Pradesh	1570.72	271.11	11.19	1853.02	850.37	1002.65	638.85	363.80
2. Assam	7.11	127.55	13.45	148.10	0.00	148.10	-131.09	279.19
3. Bihar	350.67	158.30	7.27	516.25	0.00	516.25	-206.02	722.26
4. Delhi(DVB)	NA	-	0.00	0.00	0.00	0.00	NA	0.00
5. Gujarat	1887.21	131.42	0.00	2018.63	1063.00	955.63	887.71	67.92
6. Haryana	769.67	127.82	3.20	900.69	641.72	258.97	126.70	132.27
7. Himachal Pradesh	1.06	35.40	-10.27	26.19	0.00	26.19	-5.58	31.77
8. Jammu & Kashmir	92.90	132.74	0.00	225.64	0.00	225.64	-285.86	511.50
9. Karnataka	1255.05	160.07	0.00	1415.12	705.82	709.30	706.57	2.73
10. Kerala	44.22	345.60	0.00	389.82	31.50	358.32	-71.26	429.57
11. Madhya Pradesh	1794.53	538.58	19.09	2352.20	300.43	2051.77	1412.90	638.87
12. Maharashtra	2555.92	380.33	-11.32	2924.93	258.61	2666.32	2590.12	76.20
13. Meghalaya	0.16	7.47	-0.66	6.97	8.50	-1.53	-5.21	3.68
14. Orissa	40.01	282.39	0.00	322.41	11.38	311.03	-121.44	432.47
15. Punjab	1008.55	161.84	14.54	1184.94	0.00	1184.94	291.51	893.43
16. Rajasthan	963.24	242.63	20.31	1226.18	560.76	665.42	318.10	347.32
17. Tamil Nadu	1225.40	237.39	15.90	1478.68	586.51	892.17	1167.34	-275.17
18. Uttar Pradesh	1762.05	806.86	93.29	2662.20	1557.00	1105.20	517.73	587.47
19. West Bengal	256.74	238.49	6.71	501.94	55.00	446.94	-52.13	499.07
Total :	15585.20	4386.01	238.75	20209.96	6630.60	13579.36	7778.95	5800.41

Uncovered Subsidy for 1997-98

SEBs	Subsidy Agri.	Subsidy Domestic	Subsidy Interstate	Gross Subsidy	Subvention from the State	Net Subsidy	Surplus from Other Users	Uncovered Subsidy
1. Andhra Pradesh	2087.22	336.07	29.63	2452.92	0.00	2452.92	704.09	1748.83
2. Assam	-0.49	188.68	2.43	190.62	0.00	190.62	-262.39	453.01
3. Bihar	450.66	181.15	18.53	650.33	0.00	650.33	-197.13	847.46
4. Delhi(DVB)	0.00	0.00	192.30	192.30	0.00	192.30	-218.65	410.94
5. Gujarat	2470.02	201.61	0.00	2671.63	1483.00	1188.63	971.66	216.97
6. Haryana	892.82	162.89	15.78	1071.49	732.40	339.09	131.56	207.53
7. Himachal Pradesh	1.22	50.29	11.07	62.58	0.00	62.58	14.08	48.50
8. Jammu & Kashmir	123.21	170.69	0.00	293.91	0.00	293.91	-367.09	661.00
9. Karnataka	1530.02	42.38	0.00	1572.40	380.14	1192.26	1067.35	124.92
10. Kerala	48.16	439.79	0.00	487.95	0.00	487.95	-59.43	547.39
11. Madhya Pradesh	2184.75	634.98	14.64	2834.37	245.44	2588.93	1330.58	1258.34
12. Maharashtra	2986.01	340.67	3.72	3330.40	305.62	3024.78	3033.16	-8.38
13. Meghalaya	0.19	11.71	8.42	20.32	9.00	11.32	-7.64	18.96
14. Orissa	51.75	341.65	0.00	393.40	5.31	388.09	-104.96	493.05
15. Punjab	0.00	231.33	19.06	250.39	0.00	250.39	260.90	-10.51
16. Rajasthan	1115.70	323.72	23.53	1462.94	704.88	758.06	469.13	288.93
17. Tamil Nadu	1502.46	217.19	20.12	1739.77	570.06	1169.71	1376.29	-206.59
18. Uttar Pradesh	1925.58	1079.00	112.73	3117.31	1838.90	1278.41	899.40	379.01
19. West Bengal	337.40	304.64	-1.29	640.76	90.00	550.76	-30.06	580.82
Total :	17706.67	5258.43	457.13	23422.23	6364.75	17057.48	9010.87	8046.61

Uncovered Subsidy for 1998-99

SEBs	Subsidy Agri.	Subsidy Domestic	Subsidy Interstate	Gross Subsidy	Subvention from the State	Net Subsidy	Surplus from Other Users	Uncovered Subsidy
1. Andhra Pradesh	2708.72	643.07	25.02	3376.81	0.00	3376.81	289.59	3087.22
2. Assam	9.40	173.65	0.00	183.04	0.00	183.04	-157.36	340.40
3. Bihar	508.10	199.64	17.34	725.07	0.00	725.07	-142.43	867.51
4. Delhi(DVB)	0.00	0.00	118.86	118.86	0.00	118.86	-263.08	381.94
5. Gujarat	3172.22	234.71	31.47	3438.41	2093.00	1345.41	950.57	394.84
6. Haryana	1065.43	148.13	19.86	1233.42	364.00	869.42	157.40	712.03
7. Himachal Pradesh	1.72	69.40	33.20	104.32	0.00	104.32	2.42	101.91
8. Jammu & Kashmir	137.63	230.13	0.00	367.76	0.00	367.76	-466.90	834.66
9. Karnataka	1511.37	167.88	0.00	1679.25	858.59	820.66	641.70	178.96
10. Kerala	49.20	450.84	0.00	500.03	0.00	500.03	57.88	442.15
11. Madhya Pradesh	2874.86	759.34	-2.61	3631.58	282.44	3349.14	1118.88	2230.26
12. Maharashtra	3087.49	346.94	-7.12	3427.31	355.10	3072.21	3176.52	-104.31
13. Meghalaya	0.05	17.37	8.01	25.43	9.00	16.43	-22.03	38.46
14. Orissa	66.43	358.99	0.00	425.43	3.00	422.43	-63.42	485.84
15. Punjab	0.00	205.35	42.17	247.52	0.00	247.52	409.26	-161.74
16. Rajasthan	1261.45	395.01	37.41	1693.87	1152.92	540.95	225.44	315.51
17. Tamil Nadu	1723.11	283.98	24.09	2031.18	250.17	1781.01	1177.07	603.94
18. Uttar Pradesh	2178.13	1267.20	132.73	3578.06	2157.55	1420.51	1084.95	335.56
19. West Bengal	330.13	481.41	-0.37	811.18	49.06	762.12	-335.04	1097.16
Total :	20685.43	6433.03	553.63	27672.09	7574.83	20097.26	7841.41	12255.85

Uncovered Subsidy for 1999-2000

SEBs	Subsidy Agri.	Subsidy Domestic	Subsidy Interstate	Gross Subsidy	Subvention from the State	Net Subsidy	Surplus from Other Users	Uncovered Subsidy
1. Andhra Pradesh	3124.21	711.26	0.00	3835.47	80.00	3755.47	583.03	3172.43
2. Assam	16.32	255.25	0.00	271.56	0.00	271.56	-93.68	365.24
3. Bihar	575.52	233.38	17.12	826.03	0.00	826.03	-281.44	1107.47
4. Delhi(DVB)	43.57	1094.52	0.00	1138.09	0.00	1138.09	-685.08	1823.17
5. Gujarat	3878.02	277.34	0.00	4155.36	1210.00	2945.36	999.67	1945.69
6. Haryana	1312.17	134.79	0.00	1446.96	412.00	1034.96	246.90	788.05
7. Himachal Pradesh	2.16	79.04	-5.85	75.35	0.00	75.35	-11.70	87.05
8. Jammu & Kashmir	63.72	217.82	0.00	281.54	0.00	281.54	-531.74	813.28
9. Karnataka	1942.85	159.86	0.00	2102.70	857.60	1245.10	1239.91	5.20
10. Kerala	82.69	687.95	0.00	770.64	0.00	770.64	192.94	577.70
11. Madhya Pradesh	3066.58	664.71	-0.80	3730.49	312.00	3418.49	968.61	2449.88
12. Maharashtra	3867.28	575.79	21.75	4464.81	0.00	4464.81	2979.57	1485.25
13. Meghalaya	0.05	16.03	15.31	31.38	10.00	21.38	-21.83	43.21
14. Orissa	N.A.	N.A.	N.A.	NA	4.00	NA	N.A.	NA
15. Punjab	0.00	226.27	54.80	281.07	0.00	281.07	382.10	-101.03
16. Rajasthan	1797.96	524.31	49.37	2371.64	0.00	2371.64	450.59	1921.04
17. Tamil Nadu	2038.68	437.40	29.39	2505.47	250.00	2255.47	1198.24	1057.23
18. Uttar Pradesh	2404.81	1418.97	143.62	3967.40	1611.23	2356.17	844.07	1512.10
19. West Bengal	324.31	389.28	-0.42	713.17	55.00	658.17	-212.85	871.02
Total :	24540.89	8103.97	436.62	33081.47	4801.83	28279.64	8247.32	20032.33

Uncovered Subsidy for 2000-01

SEBs	Subsidy Agri.	Subsidy Domestic	Subsidy Interstate	Gross Subsidy	Subvention from the State	Net Subsidy	Surplus from Other Users	Uncovered Subsidy
1. Andhra Pradesh	3939.44	1235.12	0.00	5174.56	750.00	4424.56	14.16	4410.40
2. Assam	19.87	295.95	0.00	315.82	0.00	315.82	-60.53	376.35
3. Bihar	684.10	289.72	23.90	997.72	0.00	997.72	-515.51	1513.22
4. Delhi(DVB)	16.15	844.94	0.00	861.09	0.00	861.09	-837.33	1698.42
5. Gujarat	4396.54	274.68	0.00	4671.22	1331.00	3340.22	1076.67	2263.55
6. Haryana	1561.74	193.41	0.00	1755.16	422.60	1332.56	220.83	1111.73
7. Himachal Pradesh	2.53	85.10	-4.72	82.92	0.00	82.92	-21.40	104.31
8. Jammu & Kashmir	45.50	232.64	0.00	278.15	0.00	278.15	-580.87	859.02
9. Karnataka	1704.43	280.31	0.00	1984.74	878.62	1106.12	758.90	347.23
10. Kerala	116.09	1010.79	0.00	1126.88	0.00	1126.88	630.59	496.29
11. Madhya Pradesh	3368.76	781.97	1.23	4151.96	343.00	3808.96	996.34	2812.62
12. Maharashtra	4289.88	669.30	18.50	4977.68	0.00	4977.68	2883.96	2093.72
13. Meghalaya	0.05	18.32	10.84	29.22	10.50	18.72	-18.54	37.26
14. Orissa	N.A.	N.A.	0.00	NA	0.00	NA	N.A.	NA
15. Punjab	0.00	244.96	54.82	299.78	0.00	299.78	421.00	-121.23
16. Rajasthan	1726.51	563.34	45.02	2334.88	0.00	2334.88	530.05	1804.83
17. Tamil Nadu	2302.58	461.77	33.11	2797.46	250.00	2547.46	1498.73	1048.73
18. Uttar Pradesh	2527.34	1526.44	146.56	4200.34	1747.08	2453.26	834.30	1618.96
19. West Bengal	381.94	457.54	-0.54	838.95	60.00	778.95	-225.38	1004.33
Total :	27083.47	9466.32	487.32	37037.11	5792.80	31244.31	7605.96	23638.35

**SUBSIDY TO SALES REVENUE RATIO
(WITH CROSS SUBSIDISATION)**

SEBs	(%)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	6.1	10.5	38.8	60.8	36.9	43.8	74.1	66.7	94.3
2. Assam	111.0	101.4	85.7	74.9	69.3	111.8	75.5	62.5	52.2
3. Bihar	56.9	36.1	50.6	41.2	56.9	57.6	49.5	59.5	75.7
4. Delhi(DVB)	22.4	NA	NA	0.0	NA	NA	NA	NA	NA
5. Gujarat	46.1	30.5	34.0	37.2	27.1	34.5	45.4	49.7	50.4
6. Haryana	85.3	98.5	62.6	55.8	55.0	56.6	58.1	NA	NA
7. Himachal Pradesh	13.0	33.8	8.9	-6.1	8.9	11.2	21.0	15.1	16.1
8. Jammu & Kashmir	348.4	504.8	874.1	657.0	826.5	700.5	834.3	407.7	286.9
9. Karnataka	3.7	5.0	15.2	32.9	33.2	19.1	37.2	23.5	26.8
10. Kerala	18.1	19.8	25.6	37.4	68.7	57.3	37.0	30.2	17.2
11. Madhya Pradesh	19.0	24.0	29.0	26.1	22.5	35.9	60.3	63.1	63.4
12. Maharashtra	1.5	1.1	0.6	9.6	3.9	3.2	2.5	12.7	16.9
13. Meghalaya	24.2	6.9	40.5	37.6	21.0	39.3	70.9	74.9	53.5
14. Orissa	28.0	40.4	24.0	29.5	38.7	36.7	35.1	N.A.	N.A.
15. Punjab	71.7	61.8	49.9	43.4	36.7	-0.4	-4.9	-2.7	-3.0
16. Rajasthan	31.5	42.0	47.4	47.6	38.3	33.5	49.9	54.9	44.2
17. Tamil Nadu	16.1	12.8	1.2	3.0	7.0	6.9	15.4	21.0	18.1
18. Uttar Pradesh	41.6	51.5	45.0	39.2	55.5	47.7	48.2	58.3	60.1
19. West Bengal	39.9	27.6	35.7	27.4	38.8	37.1	62.8	41.6	41.5
Average	25.6	27.0	28.2	29.1	45.8	28.2	36.0	39.3	41.0

**SUBSIDY TO SALES REVENUE RATIO
(WITHOUT CROSS SUBSIDISATION)**

SEBs	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	42.7	47.6	69.1	84.0	83.8	61.5	81.0	78.7	94.6
2. Assam	34.0	45.9	38.2	27.7	30.6	47.1	40.6	46.4	43.8
3. Bihar	46.9	34.0	39.8	36.4	36.4	44.2	41.3	44.4	49.9
4. Delhi(DVB)	29.1	NA	NA	NA	NA	NA	NA	NA	NA
5. Gujarat	63.3	52.2	50.3	54.5	54.6	54.2	62.7	65.4	65.5
6. Haryana	88.9	104.5	71.4	68.9	63.6	64.5	66.6	NA	NA
7. Himachal Pradesh	8.6	21.4	11.0	4.9	3.5	14.5	21.5	13.1	12.8
8. Jammu & Kashmir	137.3	208.0	344.5	296.8	296.9	311.5	367.6	141.1	92.9
9. Karnataka	42.9	44.9	54.2	67.3	67.3	59.4	60.1	57.3	43.4
10. Kerala	17.8	19.5	22.6	34.8	34.8	51.1	41.8	40.3	39.0
11. Madhya Pradesh	34.5	42.8	53.0	55.1	55.4	67.6	87.1	85.2	83.4
12. Maharashtra	27.9	25.4	29.9	36.6	36.5	36.3	34.3	38.3	40.3
13. Meghalaya	24.9	16.9	28.0	29.9	10.0	28.5	38.0	44.2	32.8
14. Orissa	24.0	28.4	16.8	21.3	19.1	29.0	30.6	NA	NA
15. Punjab	75.1	65.8	52.1	47.4	46.8	9.0	7.5	7.6	7.5
16. Rajasthan	39.0	47.0	49.8	54.3	53.0	49.4	57.6	67.7	57.1
17. Tamil Nadu	38.7	35.3	32.3	32.8	32.9	33.2	36.7	40.3	38.9
18. Uttar Pradesh	59.0	66.3	60.3	55.5	55.8	67.0	69.2	74.0	75.0
19. West Bengal	27.8	27.9	34.7	31.7	30.5	35.4	44.5	32.1	32.7
Average	43.2	44.0	45.6	46.2	45.3	45.9	50.3	52.4	51.6

SURPLUS GENERATED BY SALES TO OTHER SECTORS

SEBs	(Rs.crore)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	668.0	781.5	649.7	532.8	638.9	704.1	289.6	583.0	14.2
2. Assam	-148.0	-115.4	-129.3	-172.9	-131.1	-262.4	-157.4	-93.7	-60.5
3. Bihar	-66.0	-18.7	-106.1	-55.7	-206.0	-197.1	-142.4	-281.4	-515.5
4. Delhi(DVB)	71.0	NA	NA	NA	NA	-218.6	-263.1	-685.1	-837.3
5. Gujarat	319.0	538.6	450.7	565.9	887.7	971.7	950.6	999.7	1076.7
6. Haryana	23.0	42.2	80.0	151.5	126.7	131.6	157.4	246.9	220.8
7. Himachal Pradesh	-6.7	-22.1	5.2	32.2	-5.6	14.1	2.4	-11.7	-21.4
8. Jammu & Kashmir	-118.0	-165.0	-210.2	-199.5	-285.9	-367.1	-466.9	-531.7	-580.9
9. Karnataka	475.0	598.7	651.6	626.8	706.6	1067.3	641.7	1239.9	758.9
10. Kerala	-1.5	-1.6	-18.1	-17.9	-71.3	-59.4	57.9	192.9	630.6
11. Madhya Pradesh	310.0	445.3	651.9	962.3	1412.9	1330.6	1118.9	968.6	996.3
12. Maharashtra	1135.0	1262.4	1781.4	1900.7	2590.1	3033.2	3176.5	2979.6	2884.0
13. Meghalaya	0.3	5.2	-4.7	-4.2	-5.2	-7.6	-22.0	-21.8	-18.5
14. Orissa	-166.7	-68.8	-51.8	-75.0	-121.4	-105.0	-63.4	N.A.	N.A.
15. Punjab	35.0	55.6	37.5	82.3	291.5	260.9	409.3	382.1	421.0
16. Rajasthan	87.0	65.1	39.1	133.1	318.1	469.1	225.4	450.6	530.0
17. Tamil Nadu	461.0	587.6	1079.9	1213.2	1167.3	1376.3	1177.1	1198.2	1498.7
18. Uttar Pradesh	920.0	394.8	483.9	600.7	517.7	899.4	1085.0	844.1	834.3
19. West Bengal	-86.4	3.0	-11.5	57.5	-52.1	-30.1	-335.0	-212.9	-225.4
Total :	3911.0	4522.5	5379.2	6333.7	7778.9	9010.9	7841.4	8247.3	7606.0

* Include mainly commercial & industrial sectors.

ADDITIONAL RESOURCE MOBILISATION

(Rs.crore)

SEBs	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
								(RE)	(AP)
1. Andhra Pradesh	52.6	0.0	0.0	257.8	619.8	1012.3	100.0	422.2	475.7
2. Assam	57.3	0.0	67.0	147.2	0.0	0.0	0.0	163.7	0.0
3. Bihar	33.4	156.8	33.4	NA	0.0	0.0	0.0	0.0	0.0
4. Delhi(DVB)	NA	NA	NA	NA	0.0	0.0	0.0	0.0	690.3
5. Gujarat	NA	NA	NA	NA	0.0	0.0	0.0	0.0	0.0
6. Haryana	55.3	90.0	222.4	195.1	406.1	397.4	0.0	202.1	240.8
7. Himachal Pradesh	25.6	10.1	17.6	12.9	54.3	0.0	35.0	74.0	102.0
8. Jammu & Kashmir	NA	NA	NA	NA	0.0	0.0	0.0	0.0	0.0
9. Karnataka	216.5	116.7	NA	NA	401.9	204.9	636.2	263.0	0.0
10. Kerala	NA	50.5	32.5	45.6	19.5	243.5	347.1	965.0	1156.3
11. Madhya Pradesh	71.9	62.6	NA	280.2	359.2	0.0	0.0	0.0	0.0
12. Maharashtra	726.6	NA	228.5	NA	1281.8	1317.7	448.1	1000.0	0.0
13. Meghalaya	10.6	NA	2.8	4.2	9.4	12.2	11.4	20.7	33.3
14. Orissa	84.4	54.5	75.2	115.0	290.8	79.1	31.1	8.8	222.9
15. Punjab	139.7	76.7	106.2	4.0	179.4	130.1	269.2	40.4	0.0
16. Rajasthan	50.5	NA	192.9	89.4	111.7	111.4	111.4	0.0	0.0
17. Tamil Nadu	231.7	325.7	382.0	450.3	65.0	586.0	108.0	314.5	751.9
18. Uttar Pradesh	634.7	83.1	273.1	362.4	194.4	775.4	259.1	41.5	40.6
19. West Bengal	NA	37.9	26.1	0.2	87.3	0.0	27.6	0.0	189.5

NET INTERNAL RESOURCES

(Rs. In Crore)

SEB	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
	Actual	Actual	Actual	Actual		Actual	Provi.	(RE)	(AP)
z									
1 Andhra Pradesh	103.0	38.1	-71.4	-276.5	-158.6	-1849.2	-2957.4	-2718.0	-3704.6
2 Assam	-71.8	-42.6	8.6	-12.3	-24.5	0.0	-89.0	-352.4	-589.8
3 Bihar	-201.6	-415.1	-484.5	-538.5	-573.4	-769.1	-398.6	-528.7	-369.2
4 Delhi	-152.8	NA	NA	-486.4	-518.3	-635.4	-1068.9	-946.0	-1148.1
5 Gujarat	-216.0	-226.0	358.0	379.0	334.0	409.0	331.0	-1107.0	-1166.0
6 Haryana	-303.1	-407.8	-327.4	67.6	-651.9	-404.5	-809.0	-462.4	-691.7
7 Himachal Pradesh	-6.8	-21.1	-18.3	-17.7	11.1	4.6	-37.6	-7.7	-15.4
8 Jammu & Kashmir	-207.4	272.5	-332.8	-296.2	-426.9	-560.4	-719.7	-699.4	-739.3
9 Karnataka	384.8	-28.5	103.6	259.4	117.8	318.4	39.5	329.0	-30.0
10 Kerala	117.7	24.9	-29.4	228.9	-97.1	-314.4	-476.7	-432.4	-146.0
11 Madhya Pradesh	15.1	-318.5	5.6	173.2	-92.8	-1464.6	-1551.2	-1806.7	-2252.0
12 Maharashtra	252.4	208.2	274.9	683.3	419.2	-44.5	-267.6	-559.4	213.2
13 Meghalaya	1.6	18.5	4.3	-0.7	13.0	4.2	-11.6	-15.3	-7.2
14 Orissa	41.1	74.0	74.7	72.1	-252.6	-265.0	-190.0	-277.0	-30.6
15 Punjab	-133.1	-56.3	-23.3	104.9	35.6	-303.5	-418.4	-476.6	-601.0
16 Rajasthan	62.2	-172.5	-352.9	382.0	-537.2	-1124.6	-1124.6	-475.6	-740.9
17 Tamil Nadu	253.6	443.5	389.6	529.0	329.3	614.1	-148.3	-743.0	-820.8
18 Uttar Pradesh	5.0	99.7	-108.8	202.2	79.0	310.7	-823.5	163.4	216.1
19 West Bengal	-105.4	-52.5	-126.6	-59.5	-96.2	-135.1	-680.1	-416.5	-469.3
Total	-161.5	-561.5	-656.1	1393.6	-2090.7	-6209.0	-11401.7	-11531.6	-13092.5

**RATE OF RETURN ON CAPITAL
(With Subsidy)**

SEBs.	(%)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	-0.20	-0.60	-0.80	0.10	-2.06	-33.95	-58.16	-126.90	-139.84
2. Assam	-43.30	-47.30	-25.70	-32.10	-25.35	-39.81	-40.65	-26.89	-29.60
3. Bihar	-20.00	-12.70	-19.00	-12.90	-27.57	-32.56	-35.29	-47.88	-52.96
4. Delhi(DVB)	-26.20	NA	NA	-29.90	-27.75	-29.96	-40.71	-31.14	-71.83
5. Gujarat	3.20	2.70	2.70	2.70	2.64	2.60	2.58	-27.55	-26.93
6. Haryana	-23.80	-27.50	-0.80	2.60	0.41	-2.02	-18.72	-23.59	-29.05
7. Himachal Pradesh	0.50	-14.90	-2.50	2.60	3.74	1.91	-4.75	-1.58	-3.10
8. Jammu & Kashmir	-39.10	-86.10	-51.70	-48.20	-56.65	-53.18	-60.25	-50.92	-50.23
9. Karnataka	3.30	3.00	3.00	3.00	3.00	3.00	3.00	3.00	-9.90
10. Kerala	-11.40	-11.40	-16.70	-17.10	-16.22	-17.05	-11.98	-9.26	-7.98
11. Madhya Pradesh	-3.40	1.00	-8.60	-0.20	-3.87	-19.89	-42.70	-47.63	-46.93
12. Maharashtra	3.10	3.10	4.10	2.90	2.16	3.88	6.17	-10.72	-4.16
13. Meghalaya	-1.80	4.40	-3.60	-5.70	-3.27	-8.44	-17.17	-19.98	-16.43
14. Orissa	2.60	2.10	1.90	2.50	-18.57	-20.00	-16.96	-29.18	-7.78
15. Punjab	-19.90	-20.90	-19.40	-21.10	-18.27	-33.21	-45.77	-38.59	-31.81
16. Rajasthan	1.00	0.40	0.00	3.00	2.44	2.34	2.35	-52.60	-33.60
17. Tamil Nadu	3.20	7.30	9.40	8.40	7.79	4.56	-8.15	-14.45	-13.39
18. Uttar Pradesh	-16.70	-17.80	-12.20	3.20	-14.09	-13.21	-13.27	-15.38	-15.35
19. West Bengal	-35.30	-20.30	-30.70	-41.80	-36.40	-37.05	-87.98	-62.63	-66.67
Average :	-7.60	-6.60	-5.70	-2.20	-7.93	-12.30	-18.78	-26.34	-27.13

RATE OF RETURN ON CAPITAL**(Without Subsidy)****(%)**

SEB	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	-0.20	-0.60	-22.30	-28.80	-21.80	-33.95	-58.16	-130.69	-167.04
2. Assam	-43.30	-47.30	-25.70	-32.10	-27.51	-42.53	-32.30	-31.48	-32.30
3. Bihar	-20.00	-12.70	-19.00	-12.90	-27.57	-32.57	-35.29	-47.88	-65.76
4. Delhi(DVB)	-26.20	NA	NA	-29.90	-27.75	-29.96	-40.71	-33.97	-63.38
5. Gujarat	-16.50	-14.60	-14.30	-24.90	-22.89	-29.79	-39.95	-51.97	-49.39
6. Haryana	-26.10	-31.20	-27.90	-31.80	-38.97	-47.79	-53.61	-41.85	-44.03
7. Himachal Pradesh	0.50	-14.90	-2.50	2.60	-3.77	-5.21	-11.92	-8.56	-9.38
8. Jammu & Kashmir	-39.10	-50.10	-51.70	-48.20	-56.69	-59.87	-66.96	-57.62	-56.94
9. Karnataka	-2.00	-0.20	-11.40	-29.40	-36.16	-16.50	-35.45	-30.92	-39.24
10. Kerala	-11.40	-11.40	-17.90	-24.10	-19.11	-17.05	-11.98	-9.26	-7.98
11. Madhya Pradesh	-14.60	-9.60	-13.50	-14.30	-10.99	-25.90	-49.94	-55.61	-54.24
12. Maharashtra	3.10	3.10	4.10	-5.30	-1.20	-0.14	1.89	-10.72	-4.16
13. Meghalaya	-7.90	-4.00	-6.90	-9.60	-7.30	-12.86	-21.35	-24.71	-21.22
14. Orissa	-8.70	-13.50	-10.20	-21.50	-19.15	-20.28	-19.23	-29.53	-7.78
15. Punjab	-19.90	-20.90	-19.40	-21.10	-18.18	-31.99	-44.47	-37.58	-31.33
16. Rajasthan	-11.40	-17.90	-19.10	-16.00	-19.20	-22.88	-38.89	-52.58	-33.60
17. Tamil Nadu	-8.80	-9.70	-0.10	-1.90	-5.40	-4.94	-12.11	-18.15	-16.89
18. Uttar Pradesh	-16.70	-17.80	-12.20	-9.60	-26.14	-26.31	-27.87	-25.13	-24.99
19. West Bengal	-35.30	-29.70	-42.20	-56.10	-42.24	-45.34	-92.13	-66.92	-70.95
Average :	-12.70	-12.30	-13.10	-16.40	-19.57	-22.94	-30.84	-33.78	-35.06

RATE OF RETURN ON CAPITAL (With 50 p/u for Agriculture)

SEBs	(%)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	13.4	9.3	-11.2	-15.7	-12.7	-22.4	-47.1	-104.3	-146.0
2. Assam	-43.3	-47.3	-25.7	-31.8	-27.3	-42.4	-31.9	-31.2	-32.0
3. Bihar	-15.7	-9.5	-16.1	-9.0	-23.6	-27.7	-29.2	-41.3	-59.6
4. Delhi(DVB)	-26.1	NA	NA	-29.9	-27.6	-29.8	NA	-33.8	-63.1
5. Gujarat	-6.9	-6.6	-8.1	-12.3	-10.8	-18.0	-27.5	-38.5	-37.1
6. Haryana	-18.7	-26.1	-26.9	-20.6	-26.4	-35.8	-40.7	-32.6	-35.7
7. Himachal Pradesh	0.6	-14.8	-2.5	2.7	-3.7	-5.1	-11.8	-8.5	-9.3
8. Jammu & Kashmir	-37.9	-48.2	-49.9	-46.2	-54.8	-57.9	-64.9	-55.8	-55.3
9. Karnataka	23.1	25.2	13.1	-7.9	-17.0	6.9	-19.8	-14.5	-24.8
10. Kerala	-10.4	-10.7	-16.9	-22.0	-17.6	-15.6	-10.8	-8.5	-7.2
11. Madhya Pradesh	-11.9	-5.4	-6.4	-4.8	-0.8	-14.1	-34.9	-39.9	-40.5
12. Maharashtra	8.7	7.1	9.4	3.3	7.8	10.0	11.4	-1.6	5.9
13. Meghalaya	-7.9	-4.0	-6.9	-9.6	-7.3	-12.8	-21.3	-24.7	-21.2
14. Orissa	-8.1	-12.8	-10.2	-20.7	-18.7	-19.8	-18.6	NA	NA
15. Punjab	-12.2	-15.1	-16.8	-11.5	-8.6	-21.7	-31.7	-27.5	-23.0
16. Rajasthan	-8.7	-15.0	-16.2	-7.9	-10.1	-14.0	-30.0	-42.1	-26.4
17. Tamil Nadu	0.0	-1.3	8.3	6.3	1.6	1.1	-6.1	-12.2	-11.0
18. Uttar Pradesh	-13.5	-15.4	-11.5	-5.5	-22.3	-22.9	-24.5	-22.1	-22.1
19. West Bengal	-32.2	-27.1	-38.6	-45.3	-35.0	-38.6	-87.0	-62.2	-66.2
Average :	-6.6	-6.9	-8.1	-8.5	-12.4	-15.6	-23.5	-26.4	-28.0

**ADDITIONAL REVENUE MOBILISABLE FROM
ACHIEVING 0% RATE OF RETURN**

(Rs.crore)

SEBs	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	4.3	22.8	981.4	1255.2	938.9	1375.6	2624.9	2755.2	4605.4
2. Assam	205.4	197.3	217.1	261.2	244.2	439.1	326.5	357.5	366.9
3. Bihar	279.6	189.7	318.9	211.4	441.6	494.9	513.5	679.8	1081.0
4. Delhi(DVB)	207.3	NA	NA	578.0	626.4	760.2	1208.6	1209.3	1186.4
5. Gujarat	519.0	493.0	551.0	1003.0	952.0	1364.0	1967.0	2577.0	2777.0
6. Haryana	403.3	506.9	467.9	553.8	635.0	764.7	839.0	944.3	1242.1
7. Himachal Pradesh	0.0	50.6	9.5	0.0	19.3	33.0	86.7	67.4	83.6
8. Jammu & Kashmir	224.5	293.2	346.7	363.2	507.2	660.6	834.3	812.8	858.4
9. Karnataka	19.4	1.9	164.2	0.0	651.8	321.7	791.6	781.8	1094.9
10. Kerala	65.4	75.0	128.1	183.2	208.0	199.0	205.2	266.7	286.7
11. Madhya Pradesh	492.9	377.1	594.2	601.9	463.9	1057.6	1946.7	2173.5	2543.8
12. Maharashtra	0.0	0.0	0.0	408.2	92.1	10.8	-158.3	960.2	358.1
13. Meghalaya	8.4	3.3	14.8	19.9	15.4	26.1	46.0	52.3	46.7
14. Orissa	85.1	196.1	136.1	230.7	374.9	391.7	365.6	332.8	89.9
15. Punjab	626.3	693.2	680.6	643.7	603.4	943.3	1313.8	1304.1	1308.9
16. Rajasthan	259.5	414.5	490.0	429.9	497.5	639.5	1087.1	1512.3	1352.1
17. Tamil Nadu	257.6	301.6	2.3	76.7	256.9	296.4	764.8	1227.2	1206.7
18. Uttar Pradesh	807.5	1201.5	1152.1	1136.2	3378.3	3692.0	4119.5	4154.9	4531.1
19. West Bengal	257.5	231.2	357.0	321.8	398.2	492.4	1089.0	859.1	993.2
Total :	4723.0	5248.9	6611.9	8277.8	11304.9	13962.7	19971.6	23027.9	26013.1

Note : It is assumed that there is no subsidy/ subvention.

Annexure 4.48

**ADDITIONAL REVENUE MOBILISABLE FROM
ACHIEVING 3% RATE OF RETURN**

SEB	(Rs.crore)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	77.4	142.8	1113.5	1385.8	1068.1	1497.2	2760.3	2818.4	4688.1
2. Assam	219.6	209.8	242.4	285.6	270.8	470.0	356.9	391.6	401.0
3. Bihar	321.0	234.0	369.4	260.6	489.6	540.5	557.2	722.3	1130.3
4. Delhi(DVB)	231.0	NA	NA	636.1	694.1	836.4	1297.7	1316.1	1242.6
5. Gujarat	613.0	594.6	667.0	1123.8	1076.8	1501.3	2114.7	2725.8	2945.7
6. Haryana	449.7	555.6	518.2	606.0	683.9	812.7	885.9	1012.0	1326.7
7. Himachal Pradesh	7.8	60.8	20.7	1.7	34.7	52.0	108.5	91.0	110.4
8. Jammu & Kashmir	241.7	310.8	366.8	385.7	534.0	693.7	871.7	855.1	903.6
9. Karnataka	48.9	35.8	207.3	0.0	705.8	380.1	858.6	857.6	1178.6
10. Kerala	82.6	94.8	150.4	205.9	240.6	234.1	256.6	353.0	394.5
11. Madhya Pradesh	593.9	495.3	726.6	728.5	590.5	1180.1	2063.6	2290.7	2684.5
12. Maharashtra	0.0	0.0	0.0	641.4	323.2	239.0	92.4	1228.9	616.3
13. Meghalaya	15.0	5.8	21.2	26.1	21.7	32.2	52.5	58.6	53.3
14. Orissa	115.0	239.6	176.0	262.9	433.6	449.7	422.6	366.6	124.6
15. Punjab	720.6	792.6	786.0	735.2	703.0	1031.7	1402.5	1408.2	1434.3
16. Rajasthan	327.8	484.0	567.0	510.7	575.3	723.4	1171.0	1598.6	1472.9
17. Tamil Nadu	345.4	394.9	113.3	197.6	399.5	476.6	954.3	1430.1	1421.1
18. Uttar Pradesh	952.6	1404.4	1435.0	1490.5	3766.0	4112.9	4563.0	4650.9	5075.1
19. West Bengal	279.4	254.6	382.4	339.0	426.5	525.0	1124.5	897.6	1035.2
Total :	5642.5	6310.2	7863.2	9822.9	13037.8	15788.6	21914.4	25073.1	28238.7

**ADDITIONAL REVENUE MOBILISABLE FROM
INTRODUCING 50 P/U FOR AGRICULTURE**

SEB	(Rs.crore)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	330.7	393.4	488.2	538.0	287.2	316.3	344.6	389.8	418.0
2. Assam	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Bihar	60.3	47.9	47.5	42.9	45.6	56.1	66.9	71.0	76.3
4. Delhi(DVB)	0.8	NA	NA	NA	NA	NA	NA	0.0	0.0
5. Gujarat	303.6	268.2	236.9	314.1	302.1	344.2	403.3	440.3	455.4
6. Haryana	113.9	83.1	16.4	0.0	0.0	0.0	0.0	0.0	0.0
7. Himachal Pradesh	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8. Jammu & Kashmir	6.8	10.9	12.4	12.1	13.5	16.5	0.0	0.0	0.0
9. Karnataka	246.7	286.8	351.8	355.6	306.1	350.5	185.2	238.6	-471.6
10. Kerala	0.0	5.0	7.1	8.5	7.6	-1.6	0.0	0.0	0.0
11. Madhya Pradesh	91.8	165.9	312.6	365.6	370.1	431.8	529.3	478.0	501.9
12. Maharashtra	289.8	241.1	364.2	446.6	380.6	439.0	319.4	414.9	438.3
13. Meghalaya	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14. Orissa	5.8	10.1	0.0	0.0	0.0	0.0	0.0	NA	NA
15. Punjab	242.2	193.5	92.7	67.5	136.7	302.5	376.6	350.0	350.0
16. Rajasthan	61.6	67.6	74.8	99.0	89.0	76.8	76.8	81.3	87.3
17. Tamil Nadu	258.0	262.5	311.4	331.6	323.7	352.1	369.3	395.5	409.4
18. Uttar Pradesh	156.5	161.5	65.5	4.9	73.7	3.3	5.0	10.6	0.3
19. West Bengal	22.5	19.6	30.7	34.7	44.5	39.3	28.5	-0.5	-5.0
Total :	2191.5	2217.3	2412.2	2621.1	2380.5	2727.0	2704.9	2869.5	2260.2

TARIFF INCREASE REQUIRED TO ACHIEVE BREAK-EVEN (0 %) ROR

SEB	(Paise/Kwh)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	0.2	1.1	42.5	59.0	57.6	73.0	122.4	118.4	171.5
2. Assam	129.2	119.0	128.6	152.7	131.7	241.4	127.9	199.3	188.5
3. Bihar	49.8	30.9	49.9	73.6	105.4	115.5	99.0	118.4	150.8
4. Delhi(DVB)	25.9	NA	NA	97.1	101.1	105.4	165.6	168.8	139.5
5. Gujarat	28.1	24.1	25.6	49.2	50.9	63.6	86.5	102.1	110.1
6. Haryana	46.8	61.0	57.0	75.9	85.4	106.0	114.2	128.3	145.1
7. Himachal Pradesh	0.0	30.4	4.5	1.4	11.7	16.7	33.6	26.8	30.4
8. Jammu & Kashmir	147.7	183.3	218.9	210.4	255.1	256.4	290.4	279.0	252.9
9. Karnataka	1.5	0.1	10.3	38.2	46.7	28.7	63.7	50.6	67.8
10. Kerala	11.2	12.0	18.3	41.6	65.7	71.4	48.4	56.7	39.3
11. Madhya Pradesh	29.4	20.3	28.4	37.3	39.7	61.1	94.3	100.9	105.6
12. Maharashtra	0.0	0.0	0.0	16.2	7.8	6.8	7.7	29.5	39.6
13. Meghalaya	0.0	5.8	39.0	40.2	34.1	50.7	91.5	98.5	93.3
14. Orissa	15.7	32.7	28.3	52.1	87.6	92.7	95.2	47.5	19.6
15. Punjab	43.8	45.6	43.1	54.4	50.3	69.3	77.3	75.6	70.7
16. Rajasthan	23.5	36.1	39.9	68.7	65.8	65.9	96.7	120.3	103.0
17. Tamil Nadu	13.5	14.9	0.1	5.0	12.1	13.5	30.7	44.0	42.1
18. Uttar Pradesh	36.2	50.5	44.6	56.2	79.3	81.8	87.1	106.1	110.2
19. West Bengal	41.6	32.4	44.6	40.7	57.4	67.7	116.6	95.1	102.0
Average :	20.3	24.0	28.0	44.6	50.0	57.8	76.6	84.1	91.3

TARIFF INCREASE REQUIRED TO ACHIEVE 3% RATE OF RETURN

SEBs	(Paise/Kwh)								
	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Provi.	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	4.00	6.70	48.20	64.54	63.72	78.12	127.81	120.65	174.28
2. Assam	138.10	126.50	143.60	166.30	145.29	257.86	139.34	217.47	205.21
3. Bihar	57.30	44.70	50.50	81.20	112.36	121.71	103.99	122.98	155.72
4. Delhi(DVB)	28.90	NA	NA	105.70	111.01	114.93	176.46	181.53	145.00
5. Gujarat	33.10	29.10	31.00	54.10	55.62	68.71	91.60	106.94	115.47
6. Haryana	52.10	66.80	63.20	81.90	90.83	111.45	119.28	135.55	153.07
7. Himachal Pradesh	4.70	36.50	9.90	6.00	17.33	23.27	40.76	34.06	38.15
8. Jammu & Kashmir	159.00	194.20	218.90	223.50	268.61	269.25	303.46	293.52	266.19
9. Karnataka	3.80	2.60	13.00	41.40	50.26	32.07	67.92	54.88	72.41
10. Kerala	14.10	15.20	21.40	44.70	70.32	75.98	54.03	65.17	48.13
11. Madhya Pradesh	35.40	26.70	34.70	42.80	45.04	66.08	98.64	105.18	110.35
12. Maharashtra	0.00	0.00	0.00	21.80	13.25	11.97	13.11	34.87	44.46
13. Meghalaya	27.30	10.20	56.00	52.40	47.79	61.80	103.97	110.20	106.22
14. Orissa	21.10	40.00	36.60	58.30	99.65	103.76	105.64	50.96	22.87
15. Punjab	50.40	52.10	49.70	60.00	55.89	74.01	81.58	80.39	76.26
16. Rajasthan	29.70	42.10	46.20	74.60	71.36	71.32	102.18	125.62	109.81
17. Tamil Nadu	18.10	19.50	4.90	9.90	17.69	20.18	37.45	50.82	49.11
18. Uttar Pradesh	42.70	59.00	55.60	69.30	93.64	97.27	102.59	122.90	128.05
19. West Bengal	45.10	35.70	47.80	42.60	60.30	71.06	120.13	98.93	105.93
Average :	25.90	29.00	33.10	50.70	56.57	64.30	83.17	90.58	97.89

REVENUE ARREARS RECEIVABLE BY SEBs

SEBs	Total (Rs.Crore)						
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
1. Andhra Pradesh	345.9	436.8	456.9	456.8	566.7	732.0	556.1
2. Assam	85.2	106.1	130.4	181.2	235.2	283.7	320.7
3. Bihar	613.0	1068.4	1325.7	1802.9	2317.6	2810.0	0.0
4. Delhi(DVB)	499.2	543.1	NA	2192.0	NA	NA	NA
5. Gujarat	590.0	577.0	720.0	849.0	1031.0	1110.0	1457.0
6. Haryana	479.2	592.7	268.7	378.8	514.4	739.8	460.1
7. Himachal Pradesh	34.2	35.9	54.0	46.2	59.5	69.9	99.6
8. Jammu & Kashmir	81.9	96.6	112.4	126.1	140.5	125.8	217.0
9. Karnataka	409.2	442.4	592.0	671.3	760.1	1046.2	980.3
10. Kerala	99.8	138.6	170.5	185.6	760.1	1046.2	980.3
11. Madhya Pradesh	394.2	485.8	577.5	733.2	1045.2	1377.1	1694.6
12. Maharashtra	1125.1	1405.0	1641.0	1840.0	2219.0	2573.0	3482.0
13. Meghalaya	NA	NA	NA	66.7	79.9	102.5	120.0
14. Orissa	184.3	146.4	NA	NA	373.3	614.3	946.8
15. Punjab	127.4	156.3	182.2	203.4	247.5	303.9	439.3
16. Rajasthan	211.5	250.9	254.9	342.7	247.5	303.9	439.3
17. Tamil Nadu	70.0	85.0	102.9	84.6	94.0	98.3	462.8
18. Uttar Pradesh	1171.6	1437.0	1785.0	2556.9	3005.2	3737.9	4827.5
19. West Bengal	198.6	486.6	640.0	784.0	828.5	1153.1	1303.2
Total :	6720.3	8490.5	9014.1	13501.4	14524.9	18227.6	18786.5

STATE ELECTRICITY DUTY COLLECTION

SEBs	(Rs. crore)								
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	42.1	51.5	65.2	59.7	68.1	73.7	75.0	86.2	97.8
2. Assam	2.1	2.2	2.3	3.6	4.1	3.9	4.2	4.5	4.6
3. Bihar	10.8	18.8	15.9	16.7	16.8	16.8	20.0	17.0	18.0
4. Delhi(DVB)	34.9	62.2	66.8	70.1	NA	48.8	58.8	68.6	76.9
5. Gujarat	315.0	401.0	445.0	497.0	641.0	770.0	880.0	1016.0	1151.0
6. Haryana	47.7	44.7	34.9	37.4	36.0	37.1	11.7	30.5	51.0
7. Himachal Pradesh	5.7	5.0	6.7	8.4	15.5	16.3	17.7	18.0	19.0
8. Jammu & Kashmir	4.6	2.6	6.0	6.2	6.7	9.8	11.7	50.6	73.2
9. Karnataka	59.7	61.2	54.4	68.7	105.4	131.5	133.4	150.1	155.4
10. Kerala	42.5	46.0	61.0	65.7	58.0	74.0	88.1	98.3	117.8
11. Madhya Pradesh	187.9	194.6	203.2	294.9	375.1	343.5	355.3	371.9	425.4
12. Maharashtra	147.4	153.7	187.6	217.8	254.3	265.4	363.7	400.0	440.0
13. Meghalaya	0.3	0.3	0.3	0.3	0.9	0.9	0.9	1.0	1.0
14. Orissa	43.1	42.6	59.8	64.9	68.1	73.0	98.7	0.0	0.0
15. Punjab	65.3	71.3	85.0	96.1	106.0	112.3	118.1	122.0	128.7
16. Rajasthan	53.2	56.8	73.3	81.8	84.6	91.7	91.7	96.2	101.6
17. Tamil Nadu	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18. Uttar Pradesh	55.7	55.3	57.0	67.2	68.3	105.3	118.7	123.3	130.6
19. West Bengal	12.7	27.5	33.1	41.1	47.5	53.5	62.8	72.1	83.2
Total :	1130.8	1297.3	1457.7	1697.6	1956.0	2227.4	2510.5	2726.2	3075.0

INCIDENCE OF "SED" ON SALES OF ELECTRICITY

	(Paise/Kwh)								
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	2.2	2.4	2.8	2.5	3.2	3.1	3.0	3.1	3.3
2. Assam	1.3	1.3	1.4	2.0	2.1	2.1	1.6	2.4	2.2
3. Bihar	1.9	3.1	2.5	2.5	2.5	2.3	2.3	1.8	1.8
4. Delhi(DVB)	4.4	NA	NA	10.5	NA	6.1	7.2	8.2	7.5
5. Gujarat	17.0	19.6	20.7	20.1	24.0	28.7	30.5	32.9	36.4
6. Haryana	5.5	5.4	4.3	4.3	4.0	4.2	1.3	3.3	4.8
7. Himachal Pradesh	3.4	3.0	3.2	3.2	5.7	5.6	5.8	5.5	5.5
8. Jammu & Kashmir	3.0	1.7	3.6	3.6	3.3	3.8	4.1	17.4	21.6
9. Karnataka	4.6	4.4	3.4	4.3	6.9	7.5	8.4	8.4	8.6
10. Kerala	7.3	7.4	8.7	8.9	8.3	9.6	9.6	9.6	9.7
11. Madhya Pradesh	11.2	10.5	9.7	12.8	15.8	14.0	13.3	13.6	14.2
12. Maharashtra	4.7	4.4	5.0	5.2	6.0	6.0	7.8	8.0	8.3
13. Meghalaya	0.7	0.5	0.8	0.6	1.9	1.7	1.8	1.8	1.9
14. Orissa	7.9	7.1	14.6	12.5	14.0	13.9	18.1	0.0	0.0
15. Punjab	4.6	4.7	5.4	5.9	6.0	6.0	5.7	5.7	5.7
16. Rajasthan	4.8	4.9	6.0	6.0	6.0	6.0	6.0	5.9	5.8
17. Tamil Nadu	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18. Uttar Pradesh	2.5	2.3	2.2	2.5	2.5	3.9	4.1	4.2	4.3
19. West Bengal	2.1	3.9	4.1	4.6	4.9	5.5	6.3	7.2	7.8
Average :	5.2	6.3	6.6	6.5	7.4	8.0	8.5	8.6	9.1

SED AS A PROPORTION OF AVERAGE TARIFF

SEBs	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	(%)	
								1999-2000 (RE)	2000-01 (AP)
1. Andhra Pradesh	2.3	2.4	3.0	2.6	2.1	1.8	1.8	1.8	1.8
2. Assam	1.1	1.1	1.1	0.9	1.0	1.0	0.6	0.8	0.6
3. Bihar	1.6	2.1	1.6	1.4	1.3	1.1	1.1	0.9	0.9
4. Delhi(DVB)	3.3	NA	NA	NA	NA	1.9	2.7	2.9	2.3
5. Gujarat	17.0	16.2	16.1	15.2	14.7	15.6	16.1	16.0	16.2
6. Haryana	7.6	6.4	3.8	3.2	2.6	2.2	0.6	1.5	2.2
7. Himachal Pradesh	3.4	2.8	2.8	2.6	4.0	3.5	3.3	2.9	2.7
8. Jammu & Kashmir	8.6	4.7	9.8	10.1	9.8	11.1	6.1	11.1	11.1
9. Karnataka	4.9	4.1	3.3	3.8	4.9	4.9	4.4	4.1	3.4
10. Kerala	9.8	9.0	10.0	9.5	8.6	7.7	7.4	5.1	4.1
11. Madhya Pradesh	9.4	8.8	7.5	9.2	9.0	8.2	8.5	8.5	8.5
12. Maharashtra	3.4	3.0	3.1	3.1	3.0	2.9	3.6	3.5	3.6
13. Meghalaya	0.8	0.6	0.8	0.5	1.5	1.3	1.4	1.3	1.1
14. Orissa	10.3	7.5	9.7	7.4	5.9	5.4	7.1	0.0	0.0
15. Punjab	6.5	5.3	5.0	4.7	4.4	4.0	3.6	3.3	3.2
16. Rajasthan	4.6	4.3	4.5	4.2	3.6	3.2	3.2	3.0	2.9
17. Tamil Nadu	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18. Uttar Pradesh	2.3	2.1	1.8	1.8	1.8	2.3	2.3	2.3	2.3
19. West Bengal	1.8	2.8	2.9	3.1	3.2	3.0	3.4	3.2	3.2
Average :	4.9	5.4	5.1	4.7	4.4	4.4	4.6	4.3	4.3

Annexure 4.56

FINANCIAL WORKING OF Electricity Departments

(Gross Operating Surplus)

EDs	(Rs. crore)								
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000 (RE)	2000-01 (AP)
1 Arunachal Pradesh	-7.43	NA	-5.89	-10.88	-20.19	-27.60	-27.36	-28.35	-25.26
2 Goa	2.91	12.13	16.40	17.06	24.59	25.73	40.48	1.04	14.66
3 Manipur	0.74	-3.80	-0.44	-18.04	-37.93	-21.05	-5.56	-27.32	-24.55
4 Mizoram	-12.35	-14.20	-15.93	-22.41	-23.95	-31.62	-33.00	-40.21	-30.42
5 Nagaland	-9.48	-11.10	-13.50	-20.90	-21.05	-20.60	-26.20	-28.76	-26.94
6 Ponicherry	5.10	10.55	12.22	11.09	6.93	4.86	-2.62	1.76	-8.27
7 Sikkim	-4.67	-4.50	-5.70	-5.93	-7.30	-9.35	-13.43	-12.75	-11.71
8 Tripura	-11.48	-18.20	-28.00	-37.70	-41.70	-43.06	-34.45	-62.25	-62.75
Total	-36.66	-29.12	-40.84	-87.71	-120.60	-122.69	-102.14	-196.84	-175.24

OUTSTANDING DUES PAYABLE TO CENTRAL SECTOR POWER CORPORATION
(INCLUDING SURCHARGE)

AS ON 31st March, 2001

(Rs. In Crores)

Sl.No.	SEBs/STATES	REC	NTPC	NEEPCO	DVC	NHPC	NPC	PFC	PGCIL	Coal Companies
1)	Andhra Pradesh	0.8	20.6	0.0	0.3	0.0	112.6	0.0	0.0	493.7
2)	Arunachal Pradesh	3.9	0.0	17.2	0.0	0.7	-	0.0	8.5	-
3)	Assam	175.4	52.8	702.8	1.7	0.2	-	0.0	203.0	0.0
4)	Bihar/BSEB	444.5	3116.3	0.0	1973.4	35.9	-	0.0	194.0	299.8
5)	Gujarat	0.6	223.9	0.0	0.0	0.0	87.9	0.1	0.0	589.4
6)	Goa	0.0	2.2	0.0	0.0	0.0	-	0.0	0.1	-
7)	Haryana	0.0	343.7	0.0	0.0	679.1	172.1	1.0	7.0	52.0
8)	Himachal Pradesh	0.1	37.8	0.0	0.0	71.9	15.0	0.4	0.7	-
9)	Jammu & Kashmir	1.3	33.8	0.0	0.0	837.5	182.9	0.0	157.0	-
10)	Karnataka	3.7	273.1	0.0	0.0	0.0	56.6	0.0	21.0	390.0
11)	Kerala	0.0	530.5	0.0	0.0	0.0	9.3	0.0	16.0	142.9
12)	Madhya Pradesh	1406.5	1426.7	0.0	0.0	0.0	789.4	14.2	67.0	1005.1
13)	Maharashtra	0.0	652.1	0.0	0.0	0.0	1.7	0.0	13.0	766.1
14)	Manipur	3.2	0.0	129.4	0.0	20.8	-	0.0	50.0	-
15)	Meghalaya	31.4	0.0	13.0	0.0	1.5	-	0.0	11.0	-
16)	Mizoram	5.4	0.0	36.8	0.0	5.1	-	2.4	5.0	-
17)	Nagaland	0.0	0.0	60.8	0.0	7.6	-	0.1	22.0	-
18)	Orissa GRIDCO	0.1	554.0	0.0	0.0	18.5	-	0.0	0.0	-
19)	Punjab	0.4	97.6	0.0	0.0	297.6	3.4	0.0	2.5	249.5
20)	Pondicherry	0.0	34.8	0.0	0.0	0.0	0.0	0.0	1.5	35.7
21)	Rajasthan	11.8	406.8	0.0	0.0	70.0	79.7	0.0	27.0	84.8
22)	Sikkim	0.0	37.3	0.0	0.0	2.3	-	0.0	13.0	-
23)	Tamil Nadu	1.0	452.1	0.0	0.0	0.0	22.4	0.0	0.7	817.1
24)	Tripura	0.6	0.0	46.0	0.0	3.1	-	0.0	10.0	-
25)	Uttar Pradesh	860.1	2731.7	0.0	0.0	699.5	579.0	0.0	0.0	408.4
26)	WBSEB	518.8	1457.3	0.0	812.5	18.1	-	0.0	75.0	300.9
	WBPDC									689.1
	DPL									186.3
27)	Delhi (DVB)	0.0	2909.6	0.0	0.0	509.9	181.6	0.0	157.0	19.9

* Including Rs.9.46 crores of TVNL

Chapter 5

Reforms and Restructuring of State Electricity Boards

5.1 Introduction

The reform process in power sector in India was initiated in 1991. The sole objective in launching of the reforms was to mobilize private sector resources for power generating capacity addition. At the end of a decade, it is seen that the additionality through independent power producers is woefully short of expectations. Against the target of 2810 MW in the 8th Plan, the actual achievement was around 1430 MW. In the 9th Plan period against the targeted capacity addition of 17588 MW through private sector projects, the likely achievement in the private sector may be around 5000 MW. The major reasons for shortfall in private sector is the financial unviability of the SEBs which makes it difficult even for approved private sector projects to achieve financial closures. During this period, the demand-supply gap in power has widened and the financial position of most of the SEBs has also deteriorated.

5.2 Independent Regulatory Commissions for Power

Reform of the Power Sector would be greatly aided by the establishment of Independent regulatory agencies responsible for setting tariffs and regulating power purchase agreements. Accordingly, the Government of India has enacted Electricity Regulatory Commission Act, 1998 for setting up of Independent regulatory bodies viz. The Central Electricity Regulatory Commission (CERC) and the State Electricity Regulatory Commissions (SERCs) at the Central level and State level respectively. These regulatory bodies would primarily look into all aspects of tariff fixation and matters incidental thereto.

Central Electricity Regulatory Commission (CERC)

Central Electricity Regulatory Commission (CERC) was constituted on 2-7-1998 at the Central level and conduct of Business Regulation notified on 26-4-1999. CERC is in operation.

State Electricity Regulatory Commissions (SERCs)

15 states have set up their respective SERCs. While the States of Orissa, Andhra Pradesh and Haryana have set up SERC under their own Act, the other States viz. UP, MP, Punjab, NCT Delhi, West Bengal, Gujarat, Rajasthan, Tamil Nadu, Maharashtra, Arunachal Pradesh, Himachal Pradesh and Karnataka have set up under the Central ERC Act.

5.3 Initiatives Taken by State Governments

The following States have made substantial progress in introducing reforms and restructuring of power sector:-

Orissa

Orissa was the first State to initiate reform of the Power Sector w.e.f April 1, 1996. The reform envisaged setting up of separate generating as well as Transmission and Distribution (T& D) agencies. Accordingly, the Orissa SEB has been split into three entities viz. *Orissa Power*

Generation Corporation (OPGC- for thermal power), *Orissa Hydro Power Corporation* (OHPC - for hydel power) and *Grid Corporation of Orissa* (GRIDCO - for transmission and distribution network). OPGC has been disinvested to the extent of 49%. The State has been divided into four zones for distribution and has been entrusted to the private distribution companies, namely North-Eastern (NESCO), Western (WESCO), Central (CESCO) and Southern (SOUTHCO) managed by BSES and the fourth zone entity CESCO has been given to AES Corporation of USA. At the end of Financial Year 2000-01, the outstanding liabilities of GRIDCO are estimated at Rs. 1160 crore. The Government has taken initiative to resolve this issue and mitigate the financial crises of GRIDCO with the concerted efforts of all the stake holders.

A Separate Regulatory Commission has been constituted as a statutory and autonomous institution to regulate and co-ordinate the activities of all these corporations. The Commission has already given three tariff orders.

The State is getting a loan of US\$ 350 million from World Bank and DFID assistance of 64.5 million pounds for reforms and restructuring.

Haryana

The Reforms Act was notified in March, 1998. The State Electricity Board was unbundled into two separate entities namely *Haryana Power Generation Corporation* (HPGC) for generation and *Haryana Vidyut Prasaran Nigam* (HVPNL) for transmission and distribution of power on August 14, 1998. HVPNL has been further restructured and distribution function has been entrusted to two distribution companies viz. Uttar Haryana Bijili Vitaran Nigam Ltd. (UHBVNL) and Dakshin Haryana Bijili Vitaran Nigam Ltd. (DHBVNL). On the lines of the Orissa model, the State has constituted a Regulatory Commission and it has already given its first tariff order.

The World Bank has committed a loan assistance of US\$ 600 Million for Power Sector Reform Programme for ten years. The assistance from DFID is 15000 UK pounds.

Andhra Pradesh

The Andhra Pradesh Electricity Reform Act, 1998 has been notified on 29th October, 1998. APSEB has been constituted and it has given first tariff order. APSEB has been unbundled into two separate companies namely, *Andhra Pradesh Power Generation Corporation* (APGENCO) for generation and *Andhra Pradesh Transmission Corporation* (APTRANSCO) for transmission of power. The APTRANSCO has been further unbundled and distribution function has been entrusted to four Distribution Companies. These companies are at present subsidiaries of APTRANSCO and are proposed to be privatised by the end of next year. APTRANSCO will be responsible for transmission of power to the Distribution Companies (DISCOMS) in the state upto the 33/11 KV level.

The World Bank has committed a loan assistance of US\$ 790 Million for Power Sector Reform Programme. APL 1 of US\$210 million has been released. The supplementary technical cooperation grant from DFID is 28 million pounds.

Uttar Pradesh

Reforms Bill passed and SERC constituted. The SERC has already issued a tariff order in

July, 2000. UPSEB has been unbundled into three separate entities namely UP Thermal Generation Corporation for thermal generation, UP Hydro Generation Corporation for hydro power generation and UP Power Corporation Ltd for transmission and distribution of power. The World Bank has committed a loan of US \$ 150 million for reform and restructuring of Power Sector in the State. Government of U.P. proposes to privatise distribution initially in Kanpur.

Rajasthan

The Rajasthan State Electricity Board has been unbundled w.e.f. July, 2000 and five separate companies have been formed, namely, Rajasthan Vidyut Utpadan Nigam Ltd. for power generation, Rajasthan Rajya Vidyut Prasaran Nigam Ltd. for transmission and three distribution companies Jaipur Vidyut Vitaran Nigam Ltd., Jodhpur Vidyut Vitaran Nigam Ltd. and Ajmer Vidyut Vitaran Nigam Ltd. The State Electricity Regulatory Commission has been set up and it has issued a tariff order.

World Bank has sanctioned a loan of US\$ 180 million during December, 2000.

Karnataka

The state had established two separate entities viz. Karnataka Power Corporation (KPC) for the development of generation projects and Karnataka Electricity Board (KEB) for transmission and distribution of electricity in 1970. The Electricity Reforms act has been enacted. The generating assets of KEB have been separated and an independent company namely Viswesvaraya Power Generation Corporation has been formed during the year 1999-2000. Transmission and distribution function is entrusted to Karnataka Power Transmission Corporation Ltd (KPTCL). As per the MOU signed by the State with the Union Power Ministry, the state proposes to further restructure the KPTCL and form separate distribution companies by December, 2001. The state has also set up an independent State Electricity Regulatory Commission and the SERC has already issued one tariff order in June, 2000.

The status of reforms in the reforming states is given below.

	Orissa	Haryana	Andhra Pradesh	Uttar Pradesh	Rajasthan	Karnataka
State Law Passed	1996	1998	1999	2000	2000	2000
SERC No. of Tariff Orders issued	3 Tariff Order	Licences issued 1 Tariff Order	Licences issued 1 Tariff Order	1 Tariff Order	1 Tariff Order	1 Tariff Order
Functional Separation and Corporatization	Separate companies for Hydro & Thermal generation and Transmission	Separate Entities for Generation and Transmission	Separate Entities for Generation & Trans- mission	Separate companies for Hydro & Thermal generation and T& D	Separate companies for generation and Trans- mission	Separate companies for generation and T& D
Distribution disaggregated	4 Dis. Cos.	2 Dis. Cos.	4 Dis. Cos.	-	3 Dis. Cos.	
Privatisation strategy in place	Yes		Yes			
Distribution Privatization	Entire Distribution		Govt. Plan by 2002	Noida in 1980s	Govt. plan by 2002	

Sale/Privati-zation of Generation	AES NTPC			NTPC		
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5.4 Status of reforms in Other States

1. Gujarat

SERC constituted. It has issued the tariff order in June, 2000. Draft Power Sector Reform Bill has been cleared by Government of India for introduction in the State Assembly. Expected assistance from ADB is US\$ 350 million for reforms/restructuring in the State.

2. Maharashtra

SERC constituted. It has issued the tariff order in June, 2000. The State has signed MOU with Ministry of Power for further reforms in the Power Sector.

3. Tamil Nadu

SERC set up. Commitment to reforms with technical and financial assistance of PFC. Ernst and Young appointed consultants for reforms study.

4. Madhya Pradesh

M.P. Reform Bill has been passed in the State Assembly. SERC has been set up. The State has signed MOU with Ministry of Power detailing out the milestones for the reform process. The proposed reform model envisages three power generation companies, one power trading company, one power transmission company and nine distribution companies.

Financial assistance to the tune of US\$ 300 million is likely to be firmed up from ADB for M.P. Power Sector Restructuring Programme.

5. Goa

A Selection Committee has been constituted for appointment of Chairman and Members of Goa Electricity Regulatory Commission. The State Government has appointed M/s. IFC, Washington as Consultants to advise and implement the privatisation of Transmission and Distribution System of Goa.

6. West Bengal

SERC has been set up. West Bengal Electricity Board has submitted the proposal for tariff revision to the SERC. Reform action plan to be formulated on acceptance of recommendations of State level reorganisation Committee.

7. Assam

ASCI report on reforms and restructuring submitted. Tariff rationalisation study being conducted by PFC. A Selection Committee has been constituted for selection of Chairman of

SERC.

8. Kerala

CIDA assistance to KSEB for conducting the restructuring study of state Power sector. Four task forces formed.

9. Punjab

Commitment to carry out reforms with assistance of PFC. SERC has been constituted. The State Government has signed a MOU with Ministry of Power for reform and restructuring of Power Sector.

10. Meghalaya

The SEB of Meghalaya has commissioned studies for capital restructuring and assets evaluation with an eye on reforms.

11. Himachal Pradesh

Himachal Pradesh has constituted SERC. The State also has signed a MOU with Ministry of Power for further reforms in the Power Sector.

12. J&K

The state Govt has drafted its own Electricity Regulatory Commission Bill in consultation with ASCI. ASCI has been appointed as Consultant to formulate long-term perspective plan for 20 years with financial assistance from PFC.

13. Arunachal Pradesh - SERC constituted.

14. Delhi

On recommendations of a strategy paper major restructuring programme is being initiated. The State Government proposes to unbundle the DVB and form separate companies for generation, transmission and distribution functions. Distribution is proposed to be entrusted to four distribution companies. The objective is to unbundle and corporatise the generation, transmission and distribution. SERC has been set up and is functional.

5.5 Reforms in Distribution Sector

The electricity industry in independent India has registered significant growth. The State Electricity Boards have seen considerable expansion in terms of installed capacities, T&D network and consumer base. In recent years the SEBs have recognised the need to go for reform and restructuring of the SEBs and to set up independent entities for generation, transmission and distribution functions. Setting up of such separate Corporations makes it possible to monitor efficiency levels in each activity and also create appropriate incentives for efficiency in each area. Introduction of reforms, particularly in the distribution sector facilitates the entry of private sector

operators and will improve the revenue realisation from the electricity sales. In fact, the entry of a number of players in the distribution sector will improve the overall performance of the sector in terms of levy of appropriate user charges, proper metering and billing of the energy sales, elimination of power thefts and energy audits and fixing accountability. Assured revenue streams from the distribution sector would facilitate adequate investments in generation and transmission projects and the investors will be more willing to put in money even without counter guarantees and escrow covers.

A close look at the performance of reforming states of Orissa, Andhra Pradesh and Haryana reveals that financial performance of unbundled utilities has improved to certain extent. These states have taken up the installation of meters in a big way with the financial assistance from World Bank and PFC and with these measures, the revenue collection has improved. In case of Orissa, the T&D losses have also fallen from a level of 50% in 1996-97 to 43% in 1999-2000. To increase the pace of reforms further in the distribution sector, we have to resolve the issue of liabilities faced by the distribution companies in the transition period like size of distribution companies, valuation of assets of the reforming utilities and transfer of existing liabilities.

The six private distribution utilities in the country, namely, BSES & TEC In Bombay, CESE in Calcutta, AEC in Ahmedabad, SEC in Surat and NPCL in Greater Noida are performing better and earning profits. They are able to generate adequate internal resources and are able to plough back resources into their organisations for further growth. All these utilities are primarily catering to the urban areas which have a large number of industrial consumers and few agricultural and rural consumers. Keeping in view the above factors, it is suggested that the states planning to introduce reforms in the Distribution Sector should initially go for the privatisation of the distribution in the urban areas. Once the company starts turning around and is able to generate adequate surpluses, then only the size of the Distribution Company should be further increased to cover the rural areas. If the Distribution Company is large, covering both urban and rural areas, it will be the tendency to invest more in urban area where the returns will be maximum. In a recent tariff order by the regulatory commission, the investment in rural electrification was not allowed to be included in capital base for calculating reasonable return. Subsidy from Government to cover shortfall in return was insisted upon.

For the electrification of remote villages as well as areas far away from the source of generation, it will be worthwhile to develop non-conventional energy sources with distribution rights meeting area specific requirements. This should be entrusted to private entrepreneurs who should be given all possible support from governmental agencies. This will help in reducing T&D losses as well as providing the electricity to the remotest corner of the country.